



Diabetic Patients' Instructional Needs at the Special Diseases Center of Shahid Mohammadi University in 2016

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ABSTRACT

Diabetes is considered a non-contagious and prevalent disease also known as the silent epidemic. Due to its great many side effects and the high medical costs, this disease needs great care and caution in education and control. Therefore, we decided to conduct the present research to investigate the instructional needs of these patients. As a descriptive-analytical research, the present investigation had all patients at the special diseases center of Shahid Mohammadi hospital as its population. From among them, 97 subjects were selected randomly in 2016. The data collection instrument was a questionnaire comprised of three sections the first of which included demographic information (age, sex, education, occupation, economic status, marital status, no. of family members). The second section consisted of patients' history of the disease (length of the disease, type, family background, prior hospitalization, the last visit paid to a doctor, cause of hospitalization, blood glucose). The third section dealt with the diet (16 items), control and treatment domain (13 items) and prevention (13 items). All items were yes/no questions. Pearson's correlation coefficient was used as the statistical procedure and the reliability and validity of the instrument were already established and reported in a prior investigation. SPSS ver.22.0 was used to analyze the data statistically. The results showed that the majority of subjects suffered from diabetes type II (61%) and there was no significant divergence between male and female subjects with this concern. The highest age range (46%) was 50-60 years, and the uneducated were 16.5% and those holding an academic degree were 3.1%. No correlation was observed between the prevention domain ($p=0.28$) and the instructional course and the insulin therapy domain ($p=0.26$). However, income and diet were significantly correlated ($p=0.047$). The findings revealed that patients needed instructions in insulin therapy. Concerning their diet, they enjoyed a high awareness but due to low income they could not satisfy their needs. This could lead to the early emergence of side effects. Though the majority of the subjects had a secondary education, they still required both awareness and instructions fitted to everyone's needs provided by the medical staff. More economic assistance is required to be offered to diabetic patients. If their needs are met at the proper time, early side effects are not emerged. Moreover, all the medical centers and staff especially nurses are supposed to analyze the needs properly especially the instructional ones and provide these patients with proper instructions fitted to their conditions.

Keywords: Patients, Instructional Needs, Diabetes

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INTRODUCTION

Diabetes is considered a prevalent but non-contagious disease the epidemic dynamics of which varies greatly and accounts for such

diseases as heart attack, brain stroke, renal diseases and amputation [1, 2]. These side effects have dramatically affected public health [3]. Though it used to prevail among adults in rich countries, diabetes has also developed in poor countries today [4] and is, therefore, called the silent epidemic [5]. Among the afflicted, some are

unaware of their disease [2]. As an instance, in 2003 in the U.S., the fourth most common reason why people visited doctors was diabetes and it was the fifth cause of mortality in the same year [4, 6]. The most probable reason why it accounts for so many mortalities is contextual changes such as urbanism and the like which change the life-style [7]. Lack of physical activity can also aggravate diabetes [7]. Research has shown that the disease charges every patient about 80 thousand tomans a month in Iran and if it is accompanied by certain side effects this cost can become 5 folds [8]. In 2002, the costs involved in diabetes were estimated to be 132 billion dollars, 92 billion dollars of which involved direct healthcare provision and 40 billion of which involved the indirect costs [2]. According to the latest statistics of WHO, there has been a rise in diabetes growth in Asia [9]. In Iran, for instance, its prevalence reached 3-5% [10]. Moreover, in 2000, 171 million people were afflicted with the disease and it was estimated that in 2030 this would reach 4.4% and till 2025, it would reach 380 million people [5, 6, 11]. Awareness of this disease and the information needs especially the educational to control and resist the disease is of a great importance [12]. Attention should be paid to the fact that patients are the foremost role-players in controlling the disease [13] and need to be daily active in managing their treatment. Therefore, instructing on self-management such as stress management can be incorporated as part of the treatment process [14]. The aim of the instructions needs to be increased independence and empowering people's self-care. This helps to realize the true meaning of health promotion [14, 15]. If followed, these instructions help to raise the quality of patients' life since diabetes seriously threatens patients' quality of life and physical and mental functioning [16]. Moreover, a body of research indicated that the lack of required instructions on management skills was a main reason why patients did not follow their diets [17]. Education has always played a key role in health [18, 19] which has been proved and documented as it enhanced patients' control of the physique [20, 21] and prevented preterm death or side effects [22]. Therefore, we should look for an effective way of communication that enables the medical staff to recognize patients' needs and solve them effectively [21]. During this instructional course, nurses are more in touch with the patients and come to know them better [22]. Therefore, when the quality of their

performance is raised, they positively affect patients' self-care and cut down on their inabilities [6]. It needs to be reminded that nurses' efficiency is also a function of patients' cooperation [17]. Instructional needs have been defined in the related literature as the distance between the current state and the ideal state which is recognized by the medical staff especially the best of them i.e. nurses. Through a proper prioritization, they take the first step for the instructional planning. Once their needs are met, patients feel secure and in peace and feel less pressed by the negative effects of the disease [10].

Therefore, the present research aimed to investigate the instructional needs of diabetic patients in the special disease center of Shahid Mohammadi hospital.

MATERIALS AND METHODS

As a descriptive-analytical study, the present research had all patients hospitalized in the special disease center (Aboureihan Biruni Center) of Shahid Mohammadi hospital in Bandar Abbas as its research population. The sample consisted of 97 subjects selected in 2016. The data collection instrument was a standardized questionnaire entitled as "Diabetic patients' instructional needs" already used by Shahraki *et al.*, [8]. The questionnaire was comprised of three sections the first of which included demographic information (age, sex, education, economic status, marital status, family size). The second section involved the history of the disease (length of the disease, type, family background, prior hospitalization, the last date of visit paid to the doctor, cause of hospitalization, blood glucose). The third section dealt with patients' diet (16 items), control and treatment domain (13 items) and prevention domain (13 items), and all the items were yes/no questions.

Pearson's correlation coefficient was used to test the correlation and the result was .87 which showed the reliability of the questionnaire. Therefore, the reliability and validity of the instrument were established. The sample was selected randomly. Once authorized, the research began with the researcher's visiting Aboureihan clinic and explaining the procedures and goals of the research to all subjects who willingly participated in the research.

To achieve the goal of the present research, firstly the questionnaires were collected, coded and entered SPSS ver.22.0 for statistical analysis. Descriptive statistics were used to analyze the data including mean and standard deviation, as well as inferential statistics such as the chi-squared test.

RESULTS

The present findings revealed that most of the subjects (61%) were afflicted with diabetes type 2 while minorities (38%) suffered from diabetes type 1 (Fig. 1).

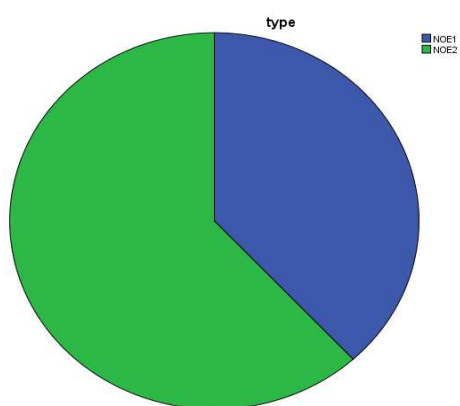


Figure 1: Distribution of diabetic subjects

The results also indicated that 46.4% of the subjects were male and 53.6% were female and did not diverge significantly from each other in affliction with the disease. The most frequent age group was 50-60 years (46%). as for education, the uneducated comprised 16.5% of the sample while those with secondary education were 36.1% and the lowest percentage belonged to those holding an academic degree (3.1%). 71.1% of the subjects had an income higher than 500 thousand tomans and 8.2% had an income lower than 200 thousand tomans. It needs to be reminded that only 18.6% of the subjects participated in the instructional course and 81.4% did not participate. In the prevention domain, though 80% of the subjects were aware of the effects of physical exercises, only 64% incorporated it in their daily routines. 35% were unaware of this significant matter. As the results obtained concerning the frequency of hospitalization revealed, 5.2% of the subjects had been hospitalized for more than six times while 36.1% had not been hospitalized by then.

Table 1: Frequency of hospitalization

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	30	30.9	30.9
	2-3	17	17.5	48.5
	4-6	10	10.3	58.8
	>6	5	5.2	63.9
	no	35	36.1	100.0
Total	97	100.0	100.0	

The results also indicated that 83% of patients were unaware of the side effects of cortisone and blood pressure. The results concerning one's affliction with diabetes are summarized in table 2.

Table 2: Distribution of patients in terms of the length of the disease

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<1sal	6	6.2	6.2
	1-5sal	11	11.3	17.5
	>5	80	82.5	100.0
	Total	97	100.0	100.0

As the results included in the above table show, 82.5% of patients suffered from the disease for more than five years while 6.2% were afflicted for less than a year. The results of the analysis indicated no significant correlation between academic education and prevention domain (p=.28) or between the instructional course and insulin domain (p=.26). However, a statistically significant correlation was found between diet and income (p=.047).

DISCUSSION

Despite the evident effect of instructions on promoting healthcare, they have not yet been established in hospitals and among the medical staff [13]. In a number of countries, the quality of instructions provided to patients is taken as an index of the validity and assessment of the quality of the healthcare services. However, in our country although there is a huge amount of knowledge about the positive impact of instructions on, there is an increasing rate of hospitalization due to diabetes and emergence of its side effects [13]. In the present research, about 61% of the subjects were afflicted with diabetes type 2. The highest income belonged to 71.1% of the sample and was above 500 thousand tomans while the lowest income belonged to 8.2% of the sample and was below 200 thousand tomans. About 18.6% of the subjects attended the

instructional course while 81.4% did not do so. On the other hand, it was observed in the present research that patients required instructions firstly and most importantly in the prevention domain and then in the insulin therapy domain. The same findings were achieved in Golaghaee *et al.*'s research who attributed this defect to such challenges as insufficient nursing staff and limited support of patients by the head management [13], staff unskilled at content presentation and insufficient experience, lack of a decent instruction room and insufficient time allocation [15]. A body of research by Shahraki *et al.* proved that 88% of individuals were unaware of the duration of their insulin injection. They, therefore, required instructions on insulin therapy [1]. In some other research conducted by Mohajerani Tehrani *et al.*, planning short-term courses to familiarize the nursing staff with modern therapies yielded results similar to the present findings as patient subjects showed to need certain extensive instructions [3]. Kendall *et al.* attributed the minor role played by nurses to their load of work and insufficient time, and pointed out the need for revising occupational history of the staff [15]. This was consistent with the present finding that type 1 diabetic patients and their families had certain needs in many domains especially the diet, insulin control and injection as well as the prevention domain. Since diabetic children get afflicted with the disease at a lower age, they have to challenge mentally and physically with the disease for longer time and since they spend most of their time at school [28] their teachers are expected to be aware of the required instructions, while they are not. According to the results reported by researchers which was similar to the present findings, it is essential to have experienced and knowledgeable staff in schools and institutes [16,22]. If these needs are met, diabetic students do not fall behind the curriculum and can safely and sufficiently communicate with other peers at school. They could be less stressed and along with their family suffer from less psychological pressures. It also impedes the early emergence of side effects, contributes to independence in doing routine activities, practice self-care and management and add to one's interest in attending instructional courses for adults which eventually satisfies patients' needs through appropriate instructional interventions in different domains [1]. It is, therefore, recommended that the first step is taken in the prevention domain.

The education system is advised to hold courses known as the health course for certain diseases such as diabetes, cancer cardiovascular diseases in all schools and incorporate them as part of the curriculum at lower levels. It is essential to employ expert teachers for this purpose. There needs to be a medical expert employed for all state organizations such as schools, banks and companies so as to give all the staff a blood sugar and cholesterol test every six months. The culture needs to be established in celebrations and meetings for instance the use such fruits as apples instead of cakes and drinks. Sugar can be removed from the food provided at state organizations and can be replaced by dates. The proposal of using dates entered the congress but was rejected due to high costs. It was promised to be included in the forthcoming year when an adequate budget is allocated. There is a need for more serious activities with this regard. Research centers, clinics and medical centers need to be financially supported so that the dietary needs are met and social threats induced by diabetes are removed.

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