

Characteristics of Diabetic Patients in Al-Leith Healthcare Center, Saudi Arabia

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Abstract:

A cross-sectional study was conducted on characteristics of diabetic patients in Al-Leith Healthcare Center, Saudi Arabia. A questionnaire was used as a tool to collect relevant data from 33 diabetic patients who are selected by simple random sample. The findings of the study revealed that most of diabetic patients were females (69.7%). More than half (54.5%) were in age group 18 – 50 years. type 2 diabetes was more frequent among patients (81.8%), and 63.6% of respondents had family history of diabetes. About 66.7% of diabetic patients depend on pills as treatment, 21.2% insulin and 12.1% control their blood sugar through following diet regime. Approximately 69.7% of diabetics test their blood sugar level continuously while 6.1% do not test sugar blood absolutely. Only 9.1% were taking care about their diet. The proportion of obesity among diabetic patient was 18.2% and the percentage of those who were practice physical exercise was 27.3%. the study concluded that type 2 diabetes was more frequent compared with other types of diabetes. There was low level of care about diet, physical exercise and body weight.

Key words: Diabetes, type1, type2, Al-Leith, Saudi Arabia

INTRODUCTION

Diabetes is a disease that affects your body's ability to produce or use insulin. Diabetes classified into type 1 diabetes (due to autoimmune b-cell destruction, usually leading to absolute insulin deficiency), type 2 diabetes (due to a progressive loss of b-cell insulin secretion frequently on the background of insulin resistance) and gestational diabetes mellitus (GDM) (diabetes diagnosed in the second or third trimester of pregnancy that was not clearly overt diabetes prior to gestation) (American Diabetes Association, 2017).

Diabetes is considered as important worldwide public health problem and has been described as a health problem challenge in the 21st century (Marsha et al, 2016). The global prevalence of diabetes increasing in the last decades and the tendency for the future is of continuous increase in all ethnic groups, male or female, for all age groups (Ionut and Amarin, 2012). This fact was reflected in World Health Organization report which mentioned that globally, about 422 million adults were living with diabetes in 2014, while in 1980 the number of diabetics was 108 million. The global prevalence of diabetes has changed since 1980 from 4.7% to 8.5% in the adult population (WHO, 2016).

In Saudi Arabia, the prevalence of diabetes is high (Suhad et al, 2016). Saudi Arabia is considered as the seventh highest rate in the world in terms of diabetes incidence, with about 3.4 million diabetic people (Ibrahim, 2015). In addition to that Diabetes is also causing a financial burden for Saudi healthcare system due to the cost of Treatment and healthcare services delivered to patients (Abdulkarim, 2017). There are many factors associated with this high figure of patients such as family history, age, obesity and lack of physical activity (Khlid et al, 2017).

MATERIALS AND METHODS

The study design was a cross-sectional study. It was carried out in Al-leith which is a town in the Makkah region on the coast of the Red Sea about 220 km south west of the holy city of Makkah, Saudi Arabia. The estimated population of Al-Leith is over 72,000 people belong to different tribes.

Required data were gathered by a questionnaire directed to about 33 who were selected using simple random sample. The questionnaire included demographic characteristics of respondents and other various variables associated with diabetes such as type of diabetes, type of treatment, diet, exercise. etc. the collected data were analyzed by Statistical Package of Social Science (SPSS).

RESULTS

In this study, table 1 shows that most of diabetic patients were females 23(69.7%). More than half (54.5%) were in age group 18 – 50 years as shown in table 2. Table 3 illustrates that type 2 diabetes was more frequent among patients (81.8%). Table 4 indicates that 63.6% of respondents had family history of diabetes. About 66.7% of diabetic patients depend on pills as treatment, 21.2% insulin and 12.1% control their blood sugar through following diet regime (table 5). Approximately 69.7% of diabetics test their blood sugar level continuously while 6.1% do not test sugar blood absolutely (table 6). Only 9.1% were following the taking care about their diet as shown in table 7. The proportion of obesity among diabetic patient was 18.2% and the percentage of those who were practice physical exercise was 27.3% as seen in table 8 and table 9 respectively.

Table 1: Sex of diabetic patients in Al-Leith Healthcare Center

Gender	No	%
Males	10	30.3%
Females	23	69.7%
Total	33	100%

Table 2: Age of diabetic patients in Al-Leith Healthcare Center

Age	No	%
18 – 50	18	54.5%
> 50	15	45.5%
Total	33	100%

Table 3: Type of diabetes among diabetic patients in Al-Leith Healthcare Center

Type of diabetes	No	%
Type 1	4	12.1%
Type 2	27	81.8%
Gestational	2	6.1%
Total	33	100%

Table 4: Family history of diabetes among diabetic patients in Al-Leith Healthcare Center

History of diabetes	No	%
Yes	21	63.6%
No	10	30.3%
I do not know	2	6.1%
Total	33	100%

Table 5: Diabetes treatment among diabetic patients in Al-Leith Healthcare Center

Diabetes treatment	No	%
Diet	4	12.1%
Pills	22	66.7%
Insulin	7	21.2%
Total	33	100%

Table 6: Blood sugar test among diabetic patients in Al-Leith Healthcare Center

Blood sugar test	No	%
Always	23	69.7%
Sometimes	8	24.2%
I do not check	2	6.1%
Total	33	100%

Table 7: Commitment of diet regime among diabetic patients in Al-Leith Healthcare Center

Diet regime commitment	No	%
Yes	3	9.1%
No	17	51.5%
I do not Know	13	39.4%
Total	33	100%

Table 8: Proportion of obesity among diabetic patients in Al-Leith Healthcare Center

Obesity	No	%
Yes	6	18.2%
No	25	75.8%
I do not know	2	6.1%
Total	33	100%

Table 9: Exercise practice among diabetic patients in Al-Leith Healthcare Center

Exercise practice	No	%
Yes	9	27.3%
No	18	54.5%
I do not know	6	18.2%
Total	33	100%

DISCUSSION

Diabetes is considered as a public health problem in many regions, particularly in the last decades. In Saudi Arabia several studies were conducted to study the disease frequency, distribution and determinants. The present study is one of these contributions to increase the knowledge about diabetes situation. Diabetes affects males and females from all ages, however several studies measure different frequencies in both sexes. According to this study females were more affected than males. Similar finding was found by Anjum et al, (2000), they found that high prevalence of Diabetes Mellitus was noted in the population and particularly in females, but in a study conducted in Saudi Arabia, it was reported that the prevalence of diabetes was more frequent in males than in females (Khalid et al, 2011).

As well as many previous studies, it was found that type 2 diabetes was common compared with other types of diabetes, Nita Gandhi and Nicholas (2014) mentioned that type 1 and type 2 diabetes are the two main types, with type 2 diabetes accounting for the majority (>85%) of total diabetes prevalence. Our data illustrated that people aged 51 years and over were more affected. Suhad et al (2016) reported that 45% of patients aged 50 years and over had diabetes. The proportion of obesity among diabetics in this study was considerably high. Obesity and family history diabetes are diabetes risk factors. This result mentioned by many authors. Such as Janet et al, (2009). Also in a study carried out in South India, it was found a correlation between diabetes and family history of diabetes (Dharamvir et al, 2011).

In the present study high percentage of patients do not stick with diet regime, however it is very important to manage blood sugar. Dietary patterns that are associated with diabetes (Lena et al, 2013).

Strong association between diabetes and lack of exercise and dietary habits (Farid et, .010). Physical exercise is one of essential activities to control blood glucose and decrease body weight, but we found more than a half were lacking physical exercise.

CONCLUSION

The study concluded that type 2 diabetes was more frequent compared with other types of diabetes. There was low level of care about diet, physical exercise and body weight. The proportion of obesity among diabetic patient was high.

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