

## Awareness among Albaha Citizens Regarding Diabetes; Population Based Study

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### Abstract

**Introduction:** Diabetes in all forms executes an unacceptably high human, social and economic cost on countries at all income levels. Saudi Arabia has a higher age adjusted comparative diabetes prevalence (17.7%) in MENA. Individual's Knowledge and awareness about diabetes affect the self-care practices towards their illness.

**Objectives:** to assess the level of awareness regarding different aspects of diabetes mellitus

**Methodology:** A cross-sectional web survey was introduced to the residents of Albaha region. The questionnaire contain sections focused on participants' socio-demographic, different aspects of diabetes mellitus, namely, general knowledge about diabetes, symptoms and signs, diagnosis and management and on risk factors and life style & Complications.

**Results:** A total of 340 questionnaires were completed. About 92.1% of them had either secondary, diploma and university education, 58.7% were aware of the treatment modalities; 67.1% aware of the effect of drug compliance on diabetic control; half of the respondents were aware of the best diagnostic method for diagnosis while only third (33.3) of the respondents were aware of the effect of patient follow up on good control of diabetes. Above half of all the respondents have a sufficient knowledge concerning complications of diabetes mellitus, especially visual disturbances (60%), most of respondents recorded the satisfactory awareness specially regarding smoking ; physical activity ; family history and diet ( 77.1%, 74.4% 55.3% and 53.8% respectively).

**Conclusion:** our survey conclude the our respondents are generally have satisfactory awareness about diabetes except for a few areas

**Keywords:** diabetes mellitus, awareness, Albaha, health promotion.

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### I. Introduction

Diabetes in all forms executes an unacceptably high human, social and economic cost on countries at all income levels. Diabetes mellitus is a rising worldwide health concern, in 2017, approximately 38.7 (27.1-51.4) million people, or 9.6% (6.7-12.7) of adults aged 20-79 years are living with diabetes in Middle East and North America (MENA). About 49.1% of these are undiagnosed.<sup>1</sup> Compared to other parts of the world, Saudi Arabia has a higher age adjusted comparative diabetes prevalence(17.7%) in MENA.<sup>1</sup> Beside to its significant mortality, diabetes-associated morbidities such as cardiovascular disease, diabetic retinopathy and neuropathy diabetes have also hired a heavy financial burden on Saudi society. An understanding of the level of Saudi public knowledge and awareness about diabetes and its risk factors, complications and management are central aspects for enhanced control and improved quality of life. Individual's Knowledge and awareness about diabetes affect the self-care practices towards their illness; the more they know about their illness, more they would have self-management skills.<sup>2</sup> Many research work among Saudi population<sup>3,4,5</sup> have revealed that, there were no enough awareness of diabetes. Our study aimed to assess the level of awareness regarding different aspects of diabetes mellitus, namely General knowledge about diabetes; the risk factors of diabetes;

symptoms; complications; treatment and available medications and Knowledge about lifestyle and non-medical measures

## II. Material and Methods

A cross-sectional web survey was introduced to the residents of Albaha region including city of Albaha; Baljurashi; Alaqiq and Almandaq. The respondents must answer all the questions of the web based questionnaire using a 'Yes', 'No' or 'Unsure' as the response. The questionnaire focusing on different aspects of diabetes mellitus. The questionnaire was intended to collect the information from participants using Arabic language to make it easy for the respondents. The first section focused on participants' socio-demographic characteristics including variables like (age, gender, level of education, residence and if respondent is diabetic or not). The second section consists of questions focusing on different aspects of diabetes mellitus, namely, general knowledge about diabetes, symptoms and signs, diagnosis and management. The third section directing on risk factors and life style & Complications.

## III. Result

A total of 340 questionnaires were completed, the highest respondent rate were from Baljurashi, Alaqiq and Albaha, 37.9%, 28.2% and 27.9% respectively as shown in table (1) below

**3.1 Socio-Demographic Characteristics:** The characteristics of participants are shown in (Table 2).

**Table (1):** Respondent's rate according the residents

Area	No of respondents	Percentage
Albaha	95	27.9%
Baljurashi	128	37.6%
Alaqiq	96	28.2%
<b>Almandaq</b>	<b>21</b>	<b>6.3%</b>
<b>Total</b>	<b>340</b>	

**Table (2):** Socio-Demographic Characteristics of the Respondent s

	No.	%
<b>Gender</b>		
Male	238	70%
Female	102	30%
<b>Age.</b>		
Less than 40	111	32.6%
More than 40	229	67.4%
<b>Educational level</b>		
Primary	12	3.5%
Elementary	15	4.4%
Secondary	88	25.9%
University	225	66.2%
<b>Income</b>		
High	26	7.6%
Intermediate	303	89.1%
<b>Low</b>	<b>3</b>	<b>3.2%</b>
<b>Marital status</b>		
Married	223	65.6%
Single	117	34.4%
<b>Diabetic history</b>		
Yes	63	18.5%
No	258	75.9%
Unsure	19	5.6%

### 3.2 Awareness of treatment of Diabetes

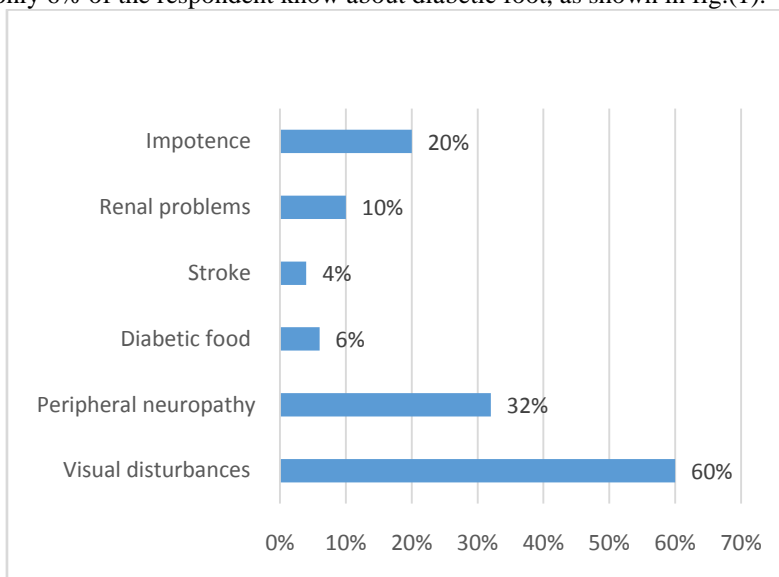
Regarding the awareness of the respondents about the treatment used for diabetes, 58.7% were aware of the treatment modalities; 67.1% aware of the effect of drug compliance on diabetic control; half of the respondents were aware of the best diagnostic method for diagnosis while only third (33.3) of the respondents were aware of the effect of patient follow up on good control of diabetes and decreases of complication as shown in table (3).

**Table (3):** Respondent Awareness regarding Diabetic Management

	%Correct respondent
Management of diabetes	58.7%
Compliance of drug treatment	67.1%
Diagnosis by HbA1c	50%
Follow up	33.3%

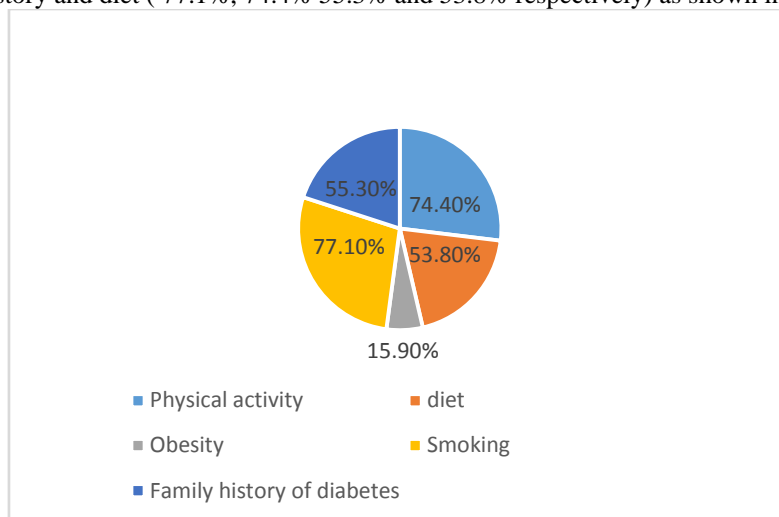
### 3.3 Awareness Diabetic complications:

Above half of all the respondents have a sufficient knowledge concerning complications of diabetes mellitus, specially visual disturbances (60%), while a few respondents were aware of other diabetic complications such as peripheral neuropathy , sexual problems and renal problems (32%,20% and 10% respectively ) and only 6% of the respondent know about diabetic foot, as shown in fig.(1).



**Fig. (1):** Respondent Awareness regarding Diabetic Complications  
Risk factors:

In this regard where the respondents recorded the satisfactory awareness specially regarding smoking ; physical activity ; family history and diet ( 77.1%, 74.4% 55.3% and 53.8% respectively) as shown in fig.(2) below.



**Fig. (2):** Respondent Awareness regarding Diabetic Risk Factors  
Discussion

Our study showed satisfactory awareness towards general knowledge about diabetes, management, drug compliance, complications and risk factors. This may be due to the level of education of respondents in this study (92.1% of them had either secondary, diploma and university education). This is in agreement with other studies that revealed the association between level of education and the increase in DM awareness.<sup>6, 7, 8</sup> Awareness about diabetic complications among our respondents was found to be unsatisfactory; this is consistent with other studies.<sup>9, 10</sup>

### IV. Conclusion

The results of our survey revealed that Albaha residents as represented by the samples in this survey are generally have satisfactory awareness about diabetes except for a few areas. Therefore, it can be concluded

that community education about diabetes had been soundly successful in terms of handing over knowledge. However the mass media and the print media including the internet will become an important source of healthcare promotion.

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