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Research Article

**PREVALENCE OF USING COMPLEMENTARY MEDICATIONS  
AMONG TYPE 2 DIABETIC PATIENTS IN MAKKAH****Abduljabbar Muhammad Alfetni<sup>1</sup>, Ghaidaa Faisal Alsharif, MBBS<sup>2</sup>,  
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Medicine, Umm Al-Qura University, Makkah, Saudi Arabia.**Abstract:****Objective:** To study the prevalence of using multivitamins supplements and herbs among type 2 diabetic patients in Makkah**Subject and method:** Cross sectional study among type2 diabetic patients who lived in Makkah city at the time of the survey a total number was 222 participants, 59 participants were diabetic and were included in this study. Study was conducted by self-administrated questionnaire, which consists of two Parts: first part is demographic data and second part is knowledge and barrier.**Result:** A total of 222 responses in current study, 59 participants. 49% of the participants are using complementary medication (multivitamins, herbs). 37% of the participants these complementary medications were prescribed for them by their doctors

51% of the participants are thinking complementary medications will improve their blood glucose control while 68% of them are thinking that stopping these complementary medications will not deteriorate the blood glucose

54% of the participants feel convinced when the doctor do not prescribe these complementary medications for them. 83% of the participants will comply with doctor recommendations if he is not prescribing these complementary medications for them. 69% of the participants have no any health education about these complementary medications.

**Key word:** Diabetes, Herbs, Multivitamins, Supplements, Complementary.**Corresponding author:****Abduljabbar Muhammad Alfetni,**

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**INTRODUCTION:**

Diabetes mellitus is a major public health problem and one of the commonest worldwide chronic disease. It occurs when the pancreas cannot produce sufficient insulin or when there is a resistance from the body that can prevent the entrance of the insulin into the cells. Hyperglycemia, or high blood sugar, is a common effect of uncontrolled diabetes and it can lead to serious multiple systems and organs damage, especially the nerves and blood vessels (1).

According to the statistics of the International Diabetes Federation (IDF), there are over 400 million adults with diabetes and the figure is expected to be over 592 million in 2035, with 5 million deaths every year (2).

There are many ways to control blood glucose levels but it differs from one type to the other one. type 2 diabetes which is called non-insulin-dependent and results from the body's resistance to insulin result mainly from excess body weight and physical inactivity and it can be controlled by lifestyle modification as diet and exercise or by oral hypoglycemic agents. Sometimes oral hypoglycemic agent could be ineffective in diabetic type 2 patients so patient should move to insulin injections therapy (3).

Some diabetic patients tend to try another ways for controlling their disease one of this ways is using multivitamin supplements and herbs and There are multiple studies show that diabetes type 2 patients are believed that there's benefits of using supplements or herbs on controlling the disease and decreasing its complications (3).

There is study shows that there is slightly more than six out of 10 Americans with DM use dietary supplements each month (4).

Another study shows that is almost half the respondents (46.3%) used complementary and alternative medicine (CAM) : 28% used CAM specifically to treat their diabetes. Individuals born overseas were significantly more likely to use CAM than those born in Australia. Other factors such as age, gender, wealth and duration of living with diabetes were not associated with higher rate of CAM usage (5).

So our aim is to study the prevalence of diabetic patients who are using multivitamin supplements and herbs for the disease

**RESEARCH DESIGN AND METHODS:****Study Design**

Cross sectional study

**Study Area**

Makkah city, it is located in western of Saudi Arabia, and it is the center of Islamic world. This study was

conduct in all diabetic patient who live in Makkah city.

**Study population**

Type2 diabetic patients who lived in Makkah city at the time of the survey.

**Sample size**

A total number was 222 participants, 59 participants were diabetic and were included in this study

**Time Period**

Two week period for data collection in October 2018

**Inclusion Criteria**

Type2 diabetic patients, male and female who live in Makkah city at the time of the study were included

**Exclusion Criteria**

Non-diabetic people and type 1 diabetic patients who live in Makkah were excluded

**DATA COLLECTION METHOD:**

Study was conducted by self-administrated questionnaire distributed thru link by WhatsApp written in Arabic language validated by review of two consultants.

Randomly selected diabetic patients in Makkah collected by self-administered questionnaire, It was completely written in Arabic language. It consists of two Parts: first part is demographic data and second part is knowledge and barrier, participants response was entered into a personal computer using google drive online form and Microsoft Excel.

**Data Analyses**

Statistical Package for Social Sciences (SPSS) for Windows version 16.0 was used for analysis. A chi-square tests ( $\chi^2$ ) analysis was performed for the association and the difference between two categorical variables. All statistical tests done, P-value equal or less than 0.05 was considered statistically significant.

**Ethical Considerations**

Before conduction of the study, all necessary approvals were obtained.

**RESULT:**

A total of 222 responses in current study, 59 participants were diabetic and met our Inclusion Criteria, their general characteristics are shown in figure (1).

Most of them (92%) are lived in Makkah. (72%) were in the age group 20-50 years and (18%) aged over 50 years while (10%) were less than 20 years Figure (1) displays that more than half of the participants (163) were non-diabetic and (59) were diabetic (53%) of them were diagnosed less than 10 years ago while (47%) diagnosed more than 10 years ago, (71%) of them were using bills and (15%) were using insulin, (14%) were using both bills and insulin

Figure (2) shows that 81% of the participants use their treatment regularly mean while 66% of the participants their blood glucose level is poorly controlled and 32% of them developed complication 49% of the participants are using complementary medication (multivitamins, herbs). 37% of the participants these complementary medications were prescribed for them by their doctors 51% of the participants are thinking complementary medications will improve their blood glucose control

while 68% of them are thinking that stopping these complementary medications will not deteriorate the blood glucose 54% of the participants feel convinced when the doctor do not prescribe these complementary medications for them. 83% of the participants will comply with doctor recommendations if he is not prescribing these complementary medications for them. 69% of the participants have no any health education about these complementary medications.

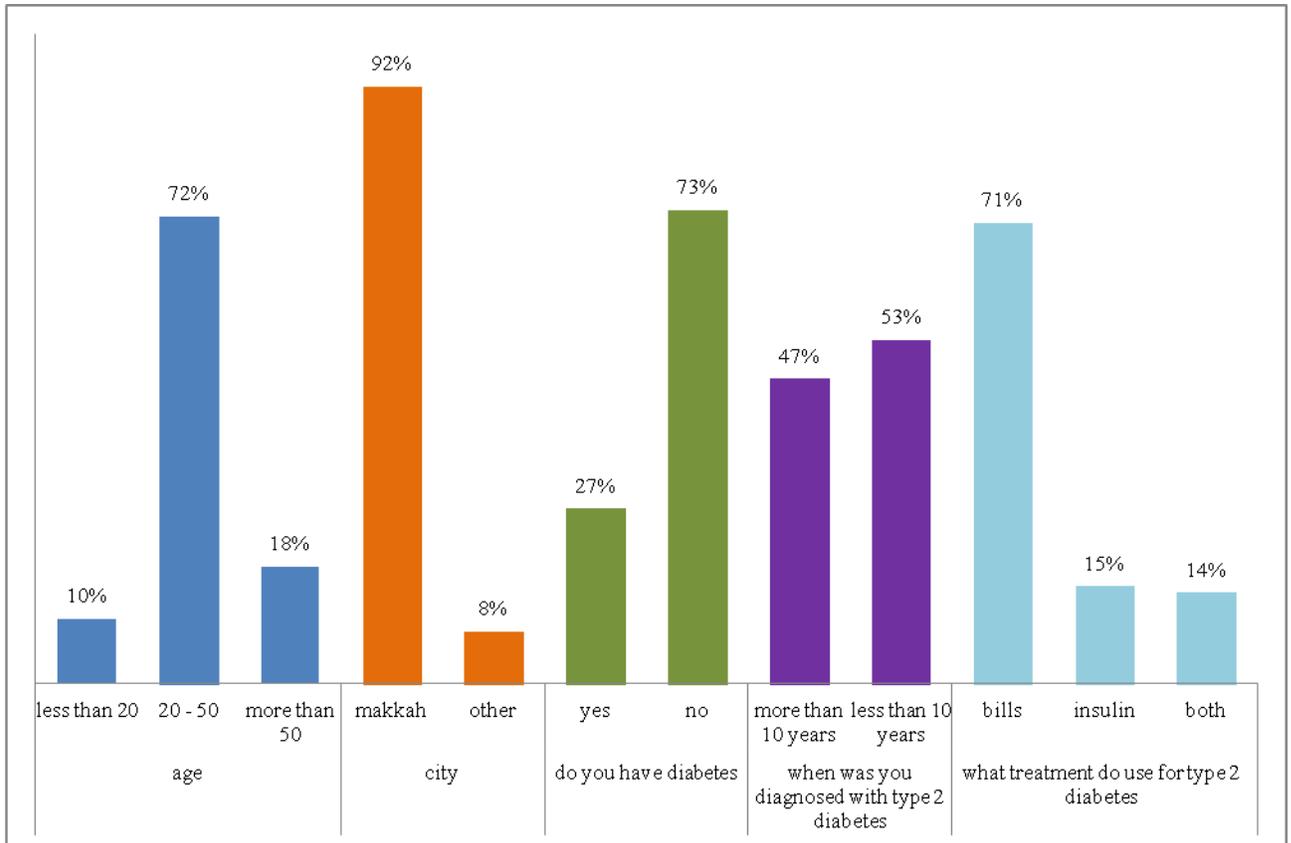
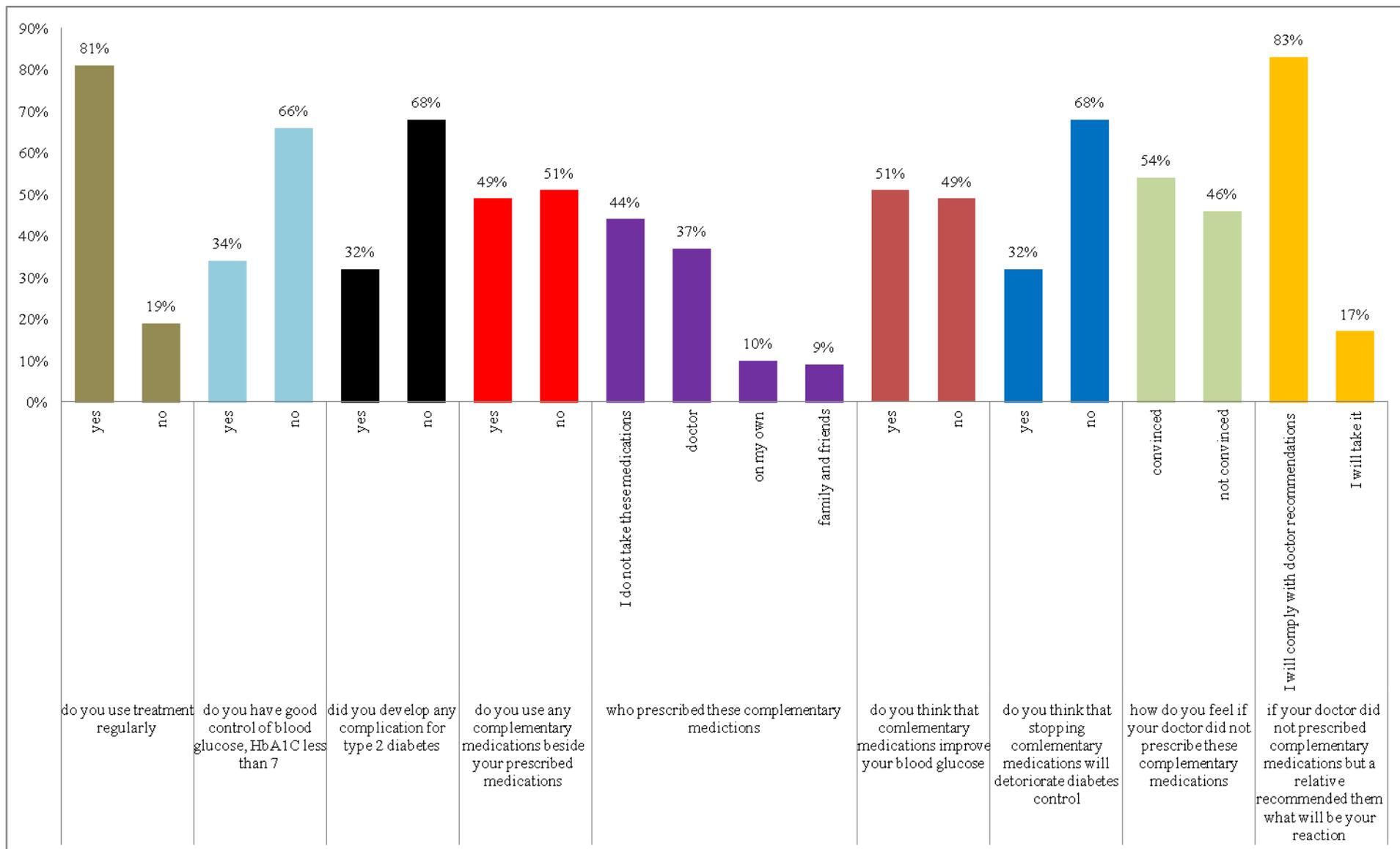
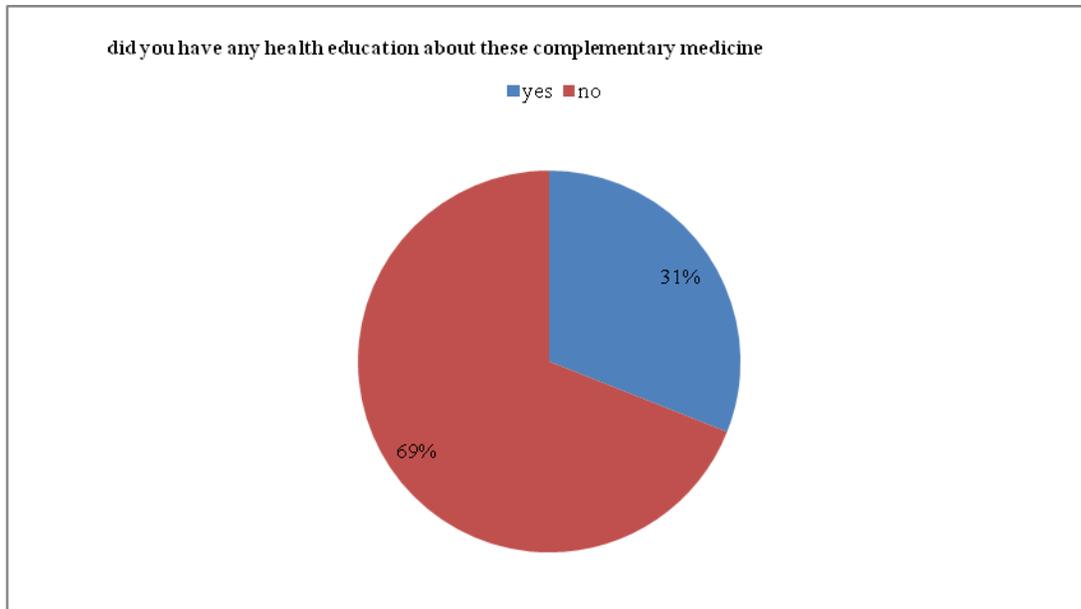


Figure 1: General characteristics of Study participants and type of treatment



**Figure 2: Diabetes conditions and control of the study participants**



**Figure 3: health education on complementary medicine among study participants**

#### DISCUSSION:

most of the participants in this cross sectional study have diabetes type 2 in less than 10 years most of them are using pills and more than 3 quarter of them are compliance to their medications although 66% of them has no control for their blood glucose one third of them have complications . 49% are using complementary medicine comparing to 60% of Americans with diabetes type 2 who are using complementary medicine <sup>(4)</sup>. 49% of the participants they are using complementary medicine 44% of them didn't take it actually and it might be explained because most of these participants didn't receive any health education about these complementary medicine.

#### CONCLUSION:

In our study, we were thinking that the percentage of the prevalence of using complementary medication among type 2 diabetic patients will be high but we found that it is 49% which is a little bit comparable to another study. 30% of the participants have complications. 46% of the participants are not convince if the doctor did not prescribe these complementary medications for them. 83% of the participants will comply to their doctors. Two third of the participants have no any health education about these complementary medicine.

#### RECOMMENDATIONS:

1. Another study better to be studied among larger sample of populations.
2. Health education should be done for type 2 diabetic patients.

3. Another study needed to be studied to know what is the reasons of high percent of complications.

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