

Research Article

Knowledge and Attitude About Sweeteners Among Type 2 Diabetic Patients

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Abstract

Background: Globally in 2013 about 382 million people are diabetics, 90% of them are type 2, that meticulous diet control is crucial in a treatment as diabetes is the 8th leading cause of death worldwide.

Objective: To assess the knowledge and practice towards sweeteners in a sample of type 2 diabetic patients as few researches cover this subject in Iraq.

Patients and method: A cross-sectional study in which convenient sample of 440 diabetic were collected and interviewed from the Centers of Diabetes and a primary health center in Baghdad during the period from 14th of March to 3rd of July 2014. Knowledge has been studied, in addition to assessment of other variables, including gender, age, education and disease duration.

Results: The results showed that 52% of the sample use sweeteners in diet 79% used 5-10 tablet/ day.

Conclusion: Majority of our sample have good knowledge and their practice of using sweeteners is in the approved range of tablets number by the FDA.

Keywords: Sweeteners; Diabetes; Knowledge

1. Introduction

Diabetes mellitus prevalence is ascending in such a way that it has almost expected to double from the year 2000 through 2030. This is not only registered in the developed countries only but also the developing countries are at risk. The expected rates are of 20% in 69% in developed and developing countries by the year of 2030 respectively

[1]. This goes hand in hand with the rise in the occurrence of obesity as its prevalence according to the WHO has tripled between 1975 and 2016. in that about 1.9 billion adults, were overweight. Of whom over 650 million were obese [2].

Diabetes mellitus ,obesity and the upgrading of health awareness all have participated in the increased rates of non-nutritive sweeteners consumption as they provide a sweet taste without affecting blood sugar level thus are crucial for dieting [3]. Such sweeteners have been part of the life-style modification in diabetics especially meticulous diet regimen which is necessary for weight reduction and hence HbA1c level decrease that play an important role in minimizing diabetes mellitus complications [4]. Artificial sweeteners have been widely used all over the world not only solely but also had been combined in many types of food giving them the sweet taste without calories like diet beverages no study has documented any carcinogenic effect, although are safe but must be consumed in minimum to ascertain their benefit [5-6].

2. Patients and Method

A cross-sectional study has been carried out in the Center of diabetes and Hay-Aladel PHC Iraq-Baghdad. From March the 7th 2014 to July the 3rd 2014, the researcher had interviewed a sample of known diabetic patients on treatment, using a specially constructed questionnaire that contain in addition to demographic data as age, sex educational level-questions regarding duration of diabetes mellitus and questions assessing sweeteners knowledge, their attitude towards it and their use. The interview took about half an hour for each participant. The study sample was convenient of 440 patients, the permission of the participants was sought, all of them were willing to participate giving a 100% response rate. Data entry was done using SPSS 23rd version. Scoring of knowledge was calculated then classified as good, fair and poor. The results were expressed in tables and graphs.

3. Results and Discussion

The sample included 440 diabetic patients, 66% of them were above 50 years and 27% appeared in a range of 30-50 years while only 7% were below 30 years, Out of them 54% were male (table 1).

AGE	%	GENDER	%
<30	7	MALE	54
30-50	27	FEMALE	46
>50	66		

Table 1: Outcome of the study carried out in the Center of diabetes and Hay-Aladel PHC Iraq-Baghdad.

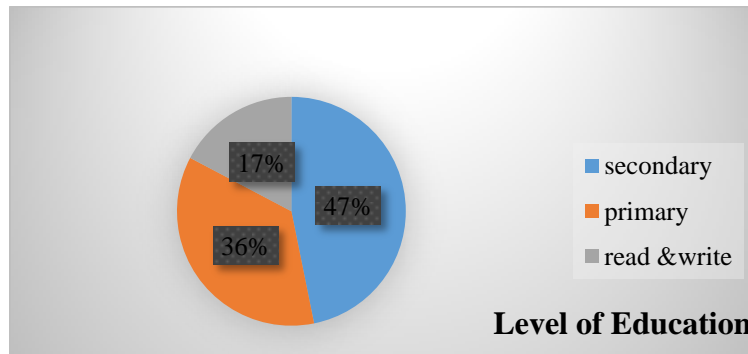


Figure 1: Study of diabetes on School students.

47% of the sample was secondary school graduates as in the Figure 1, 5-10 years was the duration of diabetes in 42% of patients and only 25% of the patients spent less than 5 years being diabetics as the (Figure 2) below expressed.

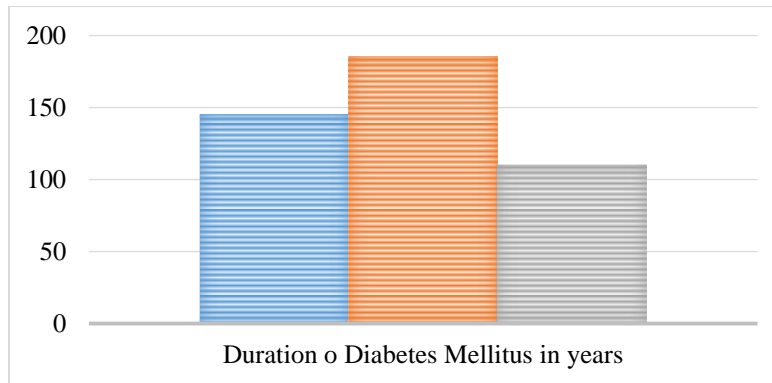


Figure 2: Duration of diabetes in patients with reference to years.

70% of the sample was noted to have acceptable Knowledge (both good and fair) while only 30% of the sample have poor knowledge (Figure 3).

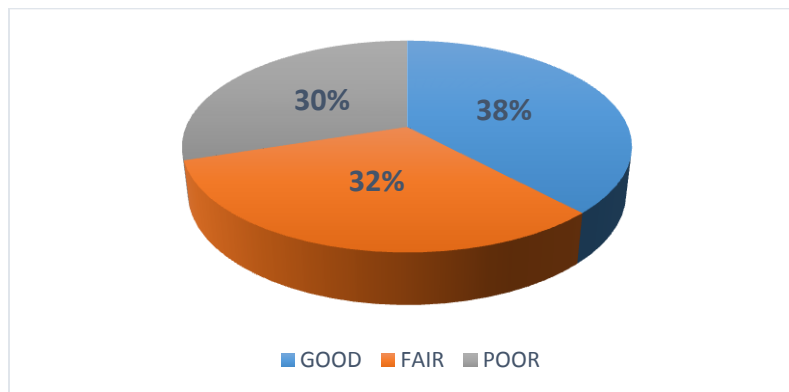


Figure 3: Knowledge scoring.

In comparison to the study of Bijapur 24.8% of them having good knowledge while 59.9% were of average knowledge, our higher level of good knowledge might be explained by the fact that our sample is selected from the diabetic center and primary health center such patients are voluntarily caring for themselves not like the Bijapur hospitalized patients [7]. 37.8% of Bijapur diabetics were using sugars and only 5% use sweeteners which is negligible regarding our 52% sample (Figure 4) [7].

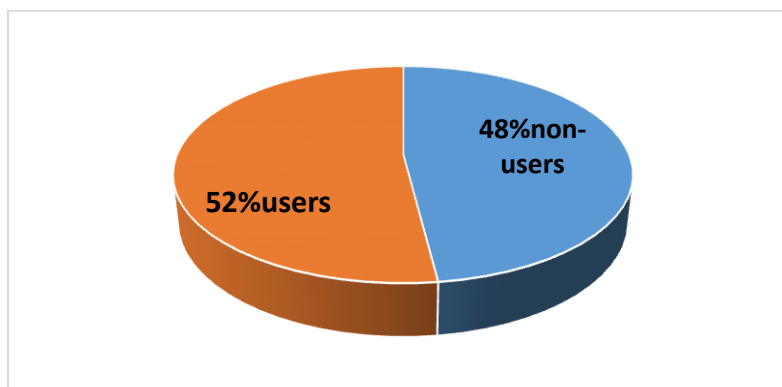


Figure 4: Use of Sweeteners.

From the sweeteners users of our study, 79% used 5-10 sweeteners tabs per day while non used more than 10 tabs (Figure 5).

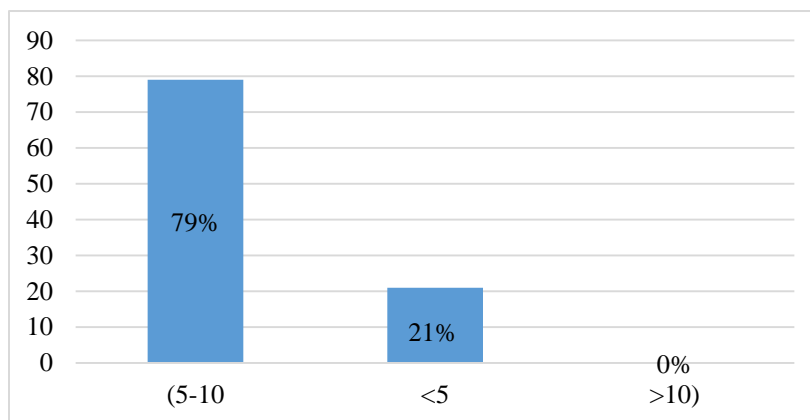


Figure 5: Number of sweetner tabs use/ day.

When comparing our study sample results to that of Saveetha dental college we found that 81% out of the 57.4% users from 102 diabetics, used aspartame sweetener up to 4 times daily [8].

4. Conclusion

Majority of our diabetic patients have good knowledge regarding sweeteners, although more than half use them in their daily practice reaching number less than 10 tabs per day which is approved by the FDA. Still 30% of them need knowledge empowerment and hence practice improvement for better sugar control.

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