

Sweetening the Truth: Examining Public Perception of Sugar Consumption and Diabetes through Online Surveys

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Introduction

The prevalence of diabetes in the UAE is considered one of the 10 highest prevalence in the world. The major determinants of Diabetes Mellitus involve hypertension, physical inactivity, sedentary lifestyle, and unhealthy diet [1].

A study evaluating the knowledge and attitude of diabetic patient in the UAE towards their condition has shown a significant amount had poor knowledge of diabetes. 72% had negative attitudes towards having the disease and 57% had HbA(1c) levels reflecting poor glycemic control [2].

Awareness and knowledge about diabetes has not significantly improved over years. As shown by study using the Michigan Diabetes Knowledge Test to assess Knowledge of diabetes among patients in the United Arab Emirates and trends since 2001: The level of diabetes-related knowledge has remained low since 2001, and misconceptions about the diabetic diet and blood testing were common [3].

Globally, the burden of diabetes mellitus is rising globally, and at a much faster rate in developed countries. The gender distribution is equal, and the incidence peaks at around 55 years of age. Global prevalence of type 2 diabetes is projected to increase to 7079 individuals per 100,000 by 2030. Therefore, urgent public health and clinical preventive measures are warranted [4].

Raising awareness regarding diabetes early diagnosis, prevention and healthy eating habits are crucial in slowing the projected exponential incidence of type 2 diabetes.

Webinars and remote health education have been more prevalent following Covid 19 pandemic.

It encourages participation and reduced the burden of transportation and planning to attend to awareness campaigns and events.

The purpose of this study is to highlight the knowledge and aware-

ness of the public regarding healthy eating habits and knowledge about diabetes. It also aims at recognizing gaps in this knowledge.

Methods

It is an observational cross-sectional study. It looked at anonymous poll based on multiple-choice questionnaire offered during a Webinar. A certified nutritionist conducted the Webinar.

It was conducted on 23 November 2022, it was addressed to policyholders of healthcare insurance company.

The webinar was conducted on the occasion of diabetes day, it tackled the discussion of dietary sugar intake, sugar craving and a brief discussion about diabetes and its complications.

Data collection

The webinar was audio- and video recorded by Vimeo, and participants consented to participate in the survey. All questions were formulated through multiple-choice questions and presented throughout the webinar. Questions were reviewed by physician. The participants had the choice to select their answer and a poll displayed anonymously their vote for each answer. Data were collected by replaying the video and answers were recorded and interpreted accordingly.

Results

The webinar included 137 live attendees, 108 participants replayed the video at a later stage but could not answer any question.

They were asked about their knowledge about dietary sugars. When asked about the amount on sugar among table sugar, honey and agave, 45 % of the participants ranked table sugar as having the highest glucose content, while only 32% guessed correctly that all 3 ingredients have the same glucose content. 90 % of the audience voted that the allowed amount of daily consumption of sugar thought to be 4.5 teaspoon of sugar while 10% voted for 7.5 teaspoons of sugar.

The audience was then questioned about their knowledge of diabetes

Prevalence of diabetes in the audience was 18% according to the poll, 20 % were never tested and the rest were healthy.

70% of the audience acknowledged knowing about the complications of untreated diabetes

76% of the audience considered the diagnosis of diabetes as motivation to change lifestyle and lose weight, while 19% considered diabetes as burden to their life and 5% prefers not to know about it if is mild.

50% of the audience has visited a dietician at least once, 35% were satisfied by online information about diet, 15% thinks diet advised by nutritionist are hard to follow

Discussion

Dietary sugars

From an early childhood, humans are directed towards foods that are more favorable . For instance, children naturally prefer sweet food when offered a choice. Other preferences for bitter or spicy food come later in life and are acquired [5].

In the setting of the increased awareness of the association of sugar consumptions and the incidence of diabetes, people have shifted their preference to healthier consumption. However, the public knowledge on the interpretation of the content and composition of products is limited. A lot of misconception on interpreting sugar content of products marketed as healthy exists.

As was shown in our study, when the audience was offered 3 different types of juices, only 26% could chose the juice with the lowest sugar content.

The World Health Organization recommends that the daily sugar intake does not make more than 10 percent of your calorie intake per day, equivalent to 50 grams [6]. The audience estimated the recommended daily consumption of sugar to be equivalent to 4.5 teaspoon, significantly less than the amount recommended by the WHO (equivalent to 7.5 teaspoons) Our study highlighted that people commonly underestimate their daily consumption or actually do not recognize all possible sources of sugars.

Diabetes

Prevalence of diabetes in the audience was 18% according to the poll which was comparable to the prevalence of diabetes in the UAE.

20% of the audience has never been tested, alerting to the need of increasing awareness on the necessity of screening individuals as recommended by international guidelines.

American Diabetes association recommend screening for diabetes in patient who are overweight or obesity, with family history of diabetes, metabolic risk factors such as hypertension, hyperlipid-

emia or cardiovascular disease, gestational diabetes, prediabetes. Testing of healthy individuals should start after 35 years of age [7].

19% considered diabetes as burden to their life and 5% prefers not to know about it if is mild.

The global burden of diabetes has been recognized internationally, and that has negatively impacted some patient who also perceived it as a burden. It is projected that by 2025 there will be 380 million people with type 2 diabetes and 418 million people with impaired glucose tolerance [8]. “Diabetes distress” has been described in the literature , it refers to the negative emotions and burden of self-management related to living with diabetes. This is mostly related to the need for continual monitoring and treatment, persistent concerns about complications, and the potential disruption of personal and professional relationships [9].

Majority of the audience considered diagnosis of diabetes is a motivator for lifestyle change and almost of them visited a dietician at some point in their life’s. In fact, studies have shown that weight loss in addition to lifestyle changes focusing on physical activity, tobacco smoking and alcohol drinking are the major predictor in the prevention of diabetes [10]. In addition, the Diabetes Prevention Program, a large randomized controlled trial focusing on type 2 diabetes treatment through lifestyle modification, found that interventions producing weight loss through improved dietary intake and physical activity decreased the risk of diabetes by 58 % [11, 12].

Conclusion

Our study highlights the misconception by the public about sugar content of available products in the market and the need on increasing the awareness of proofreading ingredients and sugar content for any misleading information.

It also shed the light on the importance of raising awareness on diabetes and its complications, encouraging early screening of eligible individuals and reducing the burden of diagnosis by offering stronger support system and support forums throughout the country.

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