

# Prevalence of Sugar Consumption among Medical Professionals in North India: A Cross Sectional Study

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**Abstract**—Objective: To assess the prevalence of sugar consumption among medical professionals in U.P., India.

**Materials and Method:** A cross sectional study was conducted among 306 medical students and practitioners. A pre-formed pre-tested questionnaire was used. Data were analyzed statistically by using Microsoft Excel.

**Result:** A total of 306 respondents were enrolled in this study. Most (62.74%) of the respondents were females. The mean age of the respondents was 25.7 years with the lowest being 17 years and highest being 37 years. The average knowledge, attitude and practice component were 72.11%, 43.21% and 53.21% respectively.

**Conclusion:** The knowledge component is fairly high at 72.11% but practice component is 53.21% stating the fact that even after being from medical background, translation of knowledge into practice is missing.

## 1. INTRODUCTION

Sugar consumption trend is on the rise these days. Consumption of sugar in different forms have become a fashion. According to WHO, the global prevalence of diabetes among adults over 18 years of age has risen from 4.7 % in 1980 to 8.5 % in 2014. In 2012, an estimated 1.5 million deaths were directly caused by diabetes and another 2.2 million deaths were attributable to high blood glucose. Sugar in addition to causing dental caries and diabetes also has various other deleterious health effects. Sweetened beverages in the form of soft drinks, packed fruit drinks, sports and energy drinks are supposed to be the main culprit behind all the ill effects. In addition to acting as toxin in the body, it significantly contributes to the pandemic spread Diabetes and Obesity. It also has a strong predictive association with increased incidences of non-communicable diseases such as cardiovascular diseases, and cancers. Emerging evidences suggest that consuming excessive sugar of any kind is highly correlated to increase in blood pressure. The effects of sugar on insulin metabolism might even accentuate and accelerate the progression of cancerous growth.

Data published in Journal of American Heart Association suggests that, those who got 17 to 21% of calories from added sugar had a 38 % higher risk of dying from cardiovascular disease than those who consumed 8 % of their calories from added sugars. Sugar consumption depresses the activity of Brain Derived Neurotrophic Factor (BDNF) which is a growth hormone in the brain. This hormone promotes health and maintenance of neurons in the brain and has a vital role in memory function. Consumption of excessive sugar affects patients with depression and schizophrenia as they have critically low BDNF. It also compromises cognitive abilities like memory and learning. Consumption of high sugar based diet is increasingly becoming a trend in college students these days necessitating the need to access the knowledge, attitude and practice of them in this regard so that early interventions can be proposed to counter this addiction.

## 2. MATERIALS AND METHODS

A cross sectional study was conducted with random sampling method. The study constituted 306 participants from the medical, dental and paramedical backgrounds. This study is a continuation of the pilot study conducted in September 2016 among 43 students in a university setting. A pretested questionnaire was used. Verbal consent was obtained from the participants followed by filling of the questionnaire. Socio-demographic characteristic, age and gender was also considered. 21.43 % weightage was given to knowledge component followed by 28.57 % & 50 % respectively to attitude and practice components.

## 3. RESULTS

Participants enrolled in the study falls in the age ranging from 17 to 35 years. The mean age was 25.7 years. 62.74% participants were females and males were 37.25%.

Average knowledge component was 72.11%. 77.45% respondents agreed that excess sugar consumption is bad for their health. 60.78% were aware about possible deleterious

effects of sugar. However, 78.10% respondents did not agree that sugar have any withdrawal symptoms.

Average attitude component was 43.21%. 23.85% respondents consume sugar to change their mood. 35.94% often ended up consuming more sugar than they thought they would. 65.35% have failed in reducing or cessation of consuming sweet substances. Although 47.71% have discontinued eating sweet substances as sugar affect their health.

Average practice component is 53.21%. 60.45% people like sweets. 37.25% consume every type of sugar (like confectionaries, bakery and drinks). Approximately 40% consume sugar more than one time in a day. 62.41% respondents consume tea/ coffee more than one time a day. 69.60% sometimes take deserts with their meal. 53.26% take 1 tablespoon sugar with every tea/ coffee. 47.71% believe that they do not require the increased amount of sugar to get the same effects every time.

#### 4. DISCUSSION

This study examined the prevalence of sugar consumption among medical professionals. From the study we can infer that knowledge component is fairly high but practice component is relatively low inspite being from the medical background. As being medical professional lifestyle of respondents is very stressed and in this study a fair range of participants agreed that they consume sugar to change their mood. As maximum respondents in this study were students so it is inferred that proper health education is necessary at regular basis. Reducing sugar in liquid intake will also bring some positive changes. Physical activity should be a part of every individual's curriculum to reduce ill effects of sugar. Proper promotion of alternatives of sugar is needed.

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