

Awareness regarding preventive factors for Diabetes Mellitus: a cross-sectional study among OPD patients at Primary Care Level

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ABSTRACT

Background: As the incidence of Diabetes Mellitus is increasing, awareness about the preventive factors is also a prerequisite for its prevention and control in general population. There are many variations in the level of this awareness from population to population; hence this study was conducted to assess the knowledge of patients attending Primary Health Center Jachh of District Mandi.

Material & Methods: This observational study was conducted among 400 OPD patients attending Primary Health Center Jachh, district Mandi. Information on socio-demographic characteristics and knowledge, regarding preventive factors for Diabetes Mellitus were obtained using a pre-tested, semi-structured questionnaire.

Results: In the current study, 40% (168) of the Patients were below 45 years of age while 60% (252) were above 45 years. 56% (235) of patients were male and 44% (185) were female. About 304 (72.3%) participants told that physical activity (brisk walk) & yoga is the preventive factor for diabetes, 267(63.5%) Healthy diet, 212(50.5%) Stop Smoking, Blood pressure control (195, 46.5%), 106(25.3%) avoid alcohol, 21(5%) Stress and 38(9%) did not know any preventive factors for diabetes.

Keywords: Diabetes Mellitus, Prevention, Awareness

INTRODUCTION

India is undergoing a rapid epidemiological transition and witnessing the rise in prevalence from 7.1% in 2009 to 8.9% in 2019.¹ Various researches proved that having the knowledge on preventive factors is equally important for disease prevention. The four modifiable components Diet, Physical activity, Alcohol & Smoking and nowadays stress have the major role in the pathogenesis of Type 2 Diabetes Mellitus besides the other non-modifiable risk factors.

The mode of intervention in primary prevention includes health education on both DM risk factors as well as preventive strategies so that people can adopt healthy lifestyles. Lifestyle modifications have proven to be more effective for preventing and delaying the onset for Type 2 DM² although, before adopting any form of intervention, it is necessary to understand the unique needs of the communities in order to relocate such research into an effective community intervention programme.³

In addition, policy makers need data regarding the determinants of Diabetes Mellitus among their population. These data are helpful for designing, implementation and evaluating program. Various studies conducted in different parts of India showed the widespread ignorance about the Diabetes Mellitus among people.⁴ As this disease largely depends on prevention and the right information is necessary to bring about a behavioral change when the population is most receptive. Hence, this study was undertaken with the objective to assess the knowledge on preventive factors for Diabetes Mellitus among OPD patients attending Primary Health Center, Jachh of District Mandi.

MATERIAL AND METHODS

Study Design: Cross sectional

Study Area: Primary Health Center, Jachh of District Mandi.

Study Population- OPD patients attending Primary Health Center, Jachh of District Mandi.

Study duration: June 2018- September-2018

Sample Size: 420 OPD patients assuming 50% have adequate knowledge on preventive factors of Diabetes Mellitus, taking 5% absolute error, 95% confidence level, and 5% non response rate.

Sampling Technique- Convenience Sampling Technique. First ten patients >18 years attending the OPD were selected till the completion of sample size after explaining the purpose of the study. Informed consent wasand confidentiality of the selected participants was also maintained.

Description of Tool: Section A-Socio-demographic characteristics of the patients (Age, Gender etc.)
Sections B-regarding knowledge preventive factors for Diabetes Mellitus

Statistical Analysis

The data were entered into the Microsoft® Excel workbook 2019 and exported into Epi info v7 software. The data was analyzed and described in terms of frequencies and percentage.

RESULTS

This observational study was done to assess the knowledge on preventive factors for Diabetes Mellitus at Primary Health Center, Jachh of District Mandi. In the current study, 56% (235) of patients were male and 44% (185) were female. 40% (168) of the Patients were below 45 years of age while 60% (252) were above 45 years.

About 304 (72.3%) participants told that physical activity (brisk walk) & yoga is the preventive factor for diabetes, 267(63.5%) Healthy diet, 212(50.5%) Stop Smoking, Blood pressure control 195(46.5%),106(25.3%) avoid alcohol, 21(5%) Stress and 38(9%) did not know any preventive factors for diabetes as shown in Table 1

Table1: Knowledge regarding preventive factors of Diabetes Mellitus

S.No	Factors	Frequency N(%)
1	Regular Physical activities & Yoga	304(72.3%)
2	Healthy diet	267(63.5%)
3	Stop smoking	212(50.5%)
4	Blood pressure control	195(46.5%),
5	Avoid alcohol	106(25.3%)
6	Stress	21(5%)
7	Don't know	38(9%)

DISCUSSION

The results obtained in our study showed that seventy percent of the participants were aware about the importance of regular exercise and maintaining ideal weight similar to the studies done by Tuso P et al⁵ and Riccardo Rossiello et al⁶, where weight reduction and physical exercise were the most common preventive factor mentioned by the participants. However, 9% of the participants were not aware about the preventive factors. The lack of the knowledge about the preventive factors could have serious effects and can act as a barrier for adopting healthy lifestyles. Also many of the participants were not able to tell more than two protective factors that could be beneficial for prevention and delaying the onset. The failure to recognize the preventive factors also implies the lack of knowledge on Diabetes as well as its risk factors. For early diagnosis and treatment there is need for creating consistent awareness that will also help in reducing the burden of the disease. The Health Belief and the Tran theoretical model for behavior change emphasized the importance of “Perceived Benefits, Perceived threats and creating awareness”. Making people aware about the risk and preventive factors associated with Diabetes will help in their behavior change and adopting healthy lifestyles. Due to the changing environment stress also act as a potential contributor to hyperglycemia. Stress stimulates releasing of such hormones which leads to elevate blood glucose⁷. Although many of the participants were not aware about this factor, so policy makers should also focus on this emerging factor and preventive strategies are to be made accordingly.



CONCLUSION

Findings from our study support the need for generating awareness on effective preventive strategies at the community level. There is also a need to design health education program focusing on preventive factors and development of strategies for stress reduction according to the local needs.

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