

KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING LIFESTYLE MODIFICATION IN TYPE 2 DIABETIC PATIENTS

Sanjiv Bhatia¹, B. S. Khanka¹, Dheeraj Singh², Pratap Shankar*², Preet Lakhani², Sachin Tutu², Amod Kumar², R. K. Dixit²

¹Department of General Surgery Hind Institute of Medical Sciences Safedabad, Barabanki

²Department of Pharmacology K. G. M. U. Lucknow

Article Received on
12 Aug 2015,

Revised on 03 Sep 2015,
Accepted on 24 Sep 2015

*Correspondence for
Author

Pratap Shankar

Department of
Pharmacology K. G. M.
U. Lucknow

ABSTRACT

Background: Diabetes mellitus (DM) is increasing in prevalence worldwide, reaching the status of an epidemic. International diabetes federation's report described that 382 million had diabetes in the year 2013 and it was estimated to reach 592 million in the year 2035. Patients with diabetes have an increased risk of developing complications. This can be significantly decreased by proper knowledge, attitude and practicing lifestyle modifications. **Aim and objectives:** To determine Knowledge, attitude and practice regarding lifestyle modification in type 2 diabetic patients. **Material and methods:** The study design is cross- sectional and observational. 200

confirmed cases of type II DM visiting diabetic clinic of tertiary care hospital of luck now city were enrolled in the study. Data was analysed using preformed questionnaire. **Result:** About 86.0 % of the participants had poor knowledge regarding the benefits of exercise and weight loss; 70.5% had poor knowledge regarding a healthy diet and 93.5 % had poor global knowledge regarding the value of exercise, weight loss and a healthy diet. 91.0 % of the participants reported that they did not exercise regularly. **Conclusion:** The knowledge and practice levels of lifestyle modifications amongst type 2 diabetes mellitus patients attending tertiary care hospital in Lucknow were generally poor. To have a better control of disease and its related complications we need develop better plans. Patients must be encouraged to practice a healthy lifestyle

KEYWORDS: Type II diabetes mellitus, lifestyle modification, exercise, diet, complication, knowledge, practice.

INTRODUCTION

Diabetes mellitus (DM) is a group of metabolic diseases which is characterized by the high levels of blood glucose resulted from defects in insulin secretion, insulin action, or both. The incidence of Type 2 diabetes is increasing worldwide.^[1,2] The total number of people with diabetes is projected to rise from 171 million in 2000 to 366 million in 2030, while in developing countries the prevalence is projected to double between 2000 and 2030 [2,3,4]. International diabetes federation's report described that 382 million had diabetes in the year 2013 and it was estimated to reach 592 million in the year 2035.^[2,5,6] Patients with type 2 diabetes mellitus (T2DM) continue to experience a high incidence of morbidity and mortality.^[7] Because the complications associated with this disease affect multiple organ systems that can have a dramatic impact on quality of life. Patients with diabetes have an increased risk of developing multi-vessel coronary artery disease, much more than those without diabetes.^[8,9] Acute coronary syndrome, specifically myocardial infarction, is one of the leading causes of death among diabetic patients.^[10] It has been suggested that general knowledge about treatments and risk factors for the disease correlate with compliance to lifestyle changes and with drug therapy; hence the ability to attain treatment goals.^[11,12]

Various studies have been conducted in various parts of the world regarding the awareness and practice of diabetes patients towards adoption of healthy lifestyle modifications.^[13] But studies regarding patient's awareness and practices are still scarce. The objective of this study was to assess the knowledge, attitude and practice of diabetic patients regarding life style modifications.

MATERIAL AND METHODS

The design of the study was cross-sectional. Patients diagnosed with type 2 diabetes mellitus seen at the diabetic clinic of tertiary care hospital at Lucknow were enrolled in the study. 200 patients were assessed based on validated questionnaire. Ethical clearance was taken before the commencement of study. Consent was taken from all the participants.

RESULTS

For the 6 questions on knowledge regarding the benefits of exercise and weight loss, participants who had 0 to 2 correct answers out of the 6 were assumed to have poor knowledge about the benefits of exercise and weight loss. This score range of 0–2 was labeled as 'poor knowledge' in the frequency distribution table. Participants who had between 3 and 4 correct answers were assumed to have average knowledge about the benefits

of exercise and weight loss and this score range of 3–4 was labeled as ‘average knowledge’. Participants with 5 to 6 correct answers were assumed to have good knowledge about the benefits of exercise and weight loss, with this score range of 5–6 being labeled as ‘good knowledge’. For the 3 practice of lifestyle modification questions, scores of 0, 1, 2 and 3 were labeled as very poor practice, poor practice, good practice and very good practice, respectively.

Knowledge about lifestyle modification

About 86.0 % of the participants had poor knowledge regarding the benefits of exercise and weight loss; 70.5 % had poor knowledge regarding a healthy diet and 93.5 % had poor global knowledge regarding the value of exercise, weight loss and a healthy diet.

Practice of lifestyle modification

Regarding healthy lifestyle practices, 91.0 % of the participants reported that they did not exercise regularly; of the 9.0 % ($n = 18$) that exercised regularly, the majority (6) exercised less than 30 minutes per day or less than 150 minutes per week. Most of the participants did not follow a controlled and planned diet and did not monitor their body weight.

Baseline characteristics of participants

Baseline characteristics	Values	Percentage
Age group (years)		
30–40		
41–50	12	6
51–60	44	22
61–70	91	45.5
>70	39	19.5
	14	7
Level of education		
No formal education		
Primary school	42	21
High school	74	37
Tertiary education	55	27.5
	29	14.5
BMI (Kg/m²)		
Normal (18.5–24.9)		
Overweight (25.0–29.9)	13	6.5
Obese class 1 (30.0–34.9)	44	22
Obese class 2 (35.0–39.9)	89	44.5
Obese class 3 (40 or more)	41	20.5
	13	6.5

Frequency distribution of knowledge about lifestyle modification, diet and global knowledge scores

Variable			Value	Percentage
Score on knowledge about benefits of exercise and weight loss				
0–2 (Poor knowledge)	200	92.1	172	86.0
3–4 (Average knowledge)	16	7.4	24	12.0
5–6 (Good knowledge)	1	0.5	4	2.0
Score on knowledge about healthy diet				
0–5 (Poor knowledge)	159	73.3	141	70.5
6–9 (Average knowledge)	58	26.7	59	29.5
10–12 (Good knowledge)	0	0.0	0	0
Global knowledge score				
0–8 (Poor knowledge)	201	92.6	187	93.5
9–13 (Average knowledge)	16	7.4	13	6.5
14–18 (Good knowledge)	0	0.0	0	0

Frequency distribution of participants according to lifestyle modification practice score.

Practice score			Number	Percentage
0 (Very poor practice)	199	91.7	182	91.0
1 (Poor practice)	13	6.0	12	6.0
2 (Good practice)	3	1.4	4	2
3 (Very good practice)	2	0.9	2	1

DISCUSSION

The majority of participants in this study were in the age groups of 41–50 years (22%), 51–60 years (45.5 %) and 61–70 years (19.5 %). This shows that type 2 diabetes mellitus usually has its onset after the age of 40 years. High prevalence of overweight (22%) and obesity (71.5%) was found amongst the participants. Obesity is a major risk factor for type 2 diabetes mellitus. Majority of the respondents had poor knowledge of the advantages of lifestyle modification. Low level of education amongst the participants was also a contributing factor.

CONCLUSION

The knowledge and practice levels of lifestyle modifications amongst type 2 diabetes mellitus patients attending tertiary care hospital in Lucknow were generally poor. But, majority of these patients have positive attitude toward healthy lifestyle habits which could potentially be harnessed and translated into healthy lifestyle practices.

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