Knowledge regarding life style modifications among patients with diabetes mellitus in S.N Hospital, Jaipur, Rajasthan

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Abstract

Background: India is home to world's largest number of diabetic mellitus life style have changed fromwhat it was in past risk association studies demonstrate that life style factors such as urbanization, socioeconomic status, stress, sedentary life style dietary caloric excess specific dietary factors and generalized central obesity are the main risk factors.

Aim: The aim of the study was to assess the knowledge regarding life style modifications among diabetic patients.

Objectives: 1. To assess the level of knowledge regarding life style modifications among patients with diabetes. 2. To associate the level of knowledge regarding life style modifications among patients with diabetes with social demographic variables.

Methodology: 50 diabetic patients admitted in S.N Hospital, Jaipur were selected by using Non- probability convenience sampling technique method.

Results: Regarding the level of knowledge regarding life style modifications among diabetic patients, 31(62%) had inadequate knowledge, 15(30%) had moderately adequate knowledge and 4(8%) had adequate knowledge.

Keywords: Knowledge, life style modifications, diabetic patients

Introduction

Diabetes is a group of metabolic diseases characterized hyperglycemia resulting from defectsin insulin secretion, insulin action or both. The chronic hyperglycemia of diabetes is associated with long-term damage, dysfunction and failure of various organ primarily the eyes, kidneys, nerves, heart and blood vessels. Because insulin is involved in the metabolismof carbohydrates, proteins and fats, diabetes is not limited to a disturbance of glucose metabolism. Polyuria, thirst and debility are common presenting symptoms. Type 1 diabetes [Insulin-dependent diabetes mellitus, abbreviated IDDM] result from the destruction of the insulin-producing cells of the pancreas occurring most commonly in childhood or adolescence. Type 2 diabetes [non-Insulin dependent diabetes mellitus, abbreviated NIDDM][1].

India is home to world's largest number of diabetic mellitus life style have changed from what it was in past risk association studies demonstrate that life style factors such as urbanization, socioeconomic status, stress, sedentary life style dietary caloric excess specific dietary factors and generalized central obesity are the main risk factors [2].

The prevalence is increasing rapidly in India an estimated 40 million people have diabetic mellitus. The prevalence in urban areas is about 9% and in the rural areas 3% it is further estimated that 35%-40% already show some complications of the disease at the time of diagnosis [3].

Need for the study

According to WHO, the prevalence of known diabetes was 86% and 2.7% among urban and rural area. Age standardized prevalence of diabetics and improved glucose tolerance in urban India is 12.1% and 140% respectively with no gender difference. Diabetic mellitus is the third leading cause of death by disease because of the high rate of cardiovascular disease among people with diabetes [4].

In national level the incidence rate is 1,71,00,000. In India the prevalence of diabetes is six cities like Delhi-11.6, Mumbai-9.3, Calcutta-11.7, Hyderabad-16.6 Bangalore-12.4, Chennai-

13.5, in which Hyderabad in the top in the prevalence of diabetes in the South India. In Nellore District 4,010 people affected with diabetes in the year of 2013 [5].

A descriptive study was conducted on effect of weight loss with life style intervention risk of diabetes, in Washington. Diabetes prevention programme participants randomized to the intensive life style intervention had significantly reduced risk of diabetic compared with placebo participants. The randomized trial using for study result is a total of 1070 participants were aged 25-84 years mean 50.6 years BMI

33.9 Kg/m2 weight loss was the dominant predictor of reduced diabetes incidence (hazard ratio for 5 kg weight loss

0.42 (95% (lo35-0.51), *P*< 0.0001) for every kilogram of weight loss, there was a 16% reduction in risk, adjusted for changes in diet and activity. The study concluded that the interventions to reduce diabetics risk should primarily targetweight reduction [6].

Statement of the problem

A study to assess the knowledge regarding life style modifications among patients with diabetes mellitus in S.N Hospital, Jaipur, Rajasthan.

Objectives

1. To assess the level of knowledge regarding life style modifications among patients with diabetes.

2. To associate the level of knowledge regarding life style modifications among patients with diabetes with social demographic variables.

Delimitations
- Diabetic patients admitted in S.N Hospital, Jaipur,
- Patients willing to participate in the study
- Sample size of 50.

Methodology
Research approach
A quantitative approach was adopted to determine the research study.

Research design
The present study was conducted by using descriptive research design

Setting of the study
The study was conducted at S.N Hospital, Jaipur.

Target population
The target population for the present study was diabetic patients.

Accessible Population
The accessible population for the present study was diabetic patients admitted in S.N Hospital, at Jaipur and who fulfilled the inclusion criteria.

Sample size
The samples consist of 50 diabetic patients.

Sampling technique\
Non-probability convenience sampling technique was adapted for the study.

Criteria for sampling selectionInclusion criteria
- Diabetic patients admitted in S.N Hospital, Jaipur.
- Patients who can read or write in Hindi or English.
- Diabetic patients are willing to participate in the study.

Exclusion criteria
- Diabetic patients are willing to participate in the study.
- Diabetic patients who are critically ill.

Variables of the study
- **Research variable:** Level of knowledge regarding life style modifications among patients with diabetes mellitus.
- **Demographic variables:** It includes age, gender, education, occupation, income, religion, diet, type of family, place of residence and source of information.

Description of the tool
Part-I: Socio demographic variables.

Part-II: This consists of structured questionnaire consists of30 questions to determine the knowledge regarding life stylemodifications among diabetic patients.

Table 1: The knowledge score percentage

Level of knowledge	Score	Percentage
Inadequate knowledge	1-14	<50
Moderate knowledge	15-21	50-70
Adequate knowledge	22-30	70-100

Data Analysis and Discussion

Table 2: Frequency distribution of level of knowledge on deepbreathing exercises among diabetic patients (N=50)

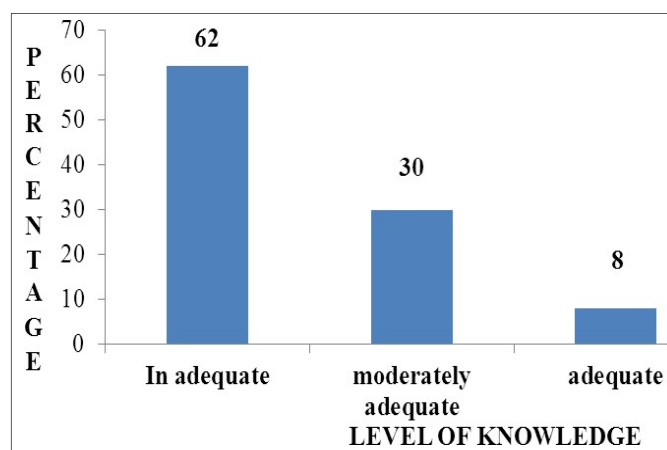| Level of Knowledge	Frequency (F)	Percentage (%)
Inadequate knowledge	31	62
Moderate knowledge	15	30
Adequate knowledge	4	8

Fig 1: Percentage distribution of level of knowledge regardingdeep breathing exercises on diabetic patients

Table 3: Mean and standard deviation of knowledge score amongdiabetic patients. (N=50)

Level of knowledge	Mean	SD
Asthmatic patients	13.22	4.74

Major findings of the study

- Regarding the level of knowledge regarding life style modifications among diabetic patients, 31(62%) had inadequate knowledge, 15(30%) had moderately adequate knowledge and 4(8%) had adequate knowledge.
- The mean knowledge score of diabetic patients was 13.2 and standard deviation was 5.848.
- Regarding association with demographic variables, only source of information education, had significant association with level of knowledge at $P< 0.05$ level.

Conclusion

The study concluded that majority of diabetic patients, 31 (62%) had inadequate knowledge regarding deep breathing exercises.

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