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RESEARCH ARTICLE

A study to assess the effectiveness of structured teaching programme on knowledge regarding selected self care practices among the diabetic patients of a tertiary care hospital

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ABSTRACT

Background: India leads the world with largest number of earning the dubious distinction of being termed the “Diabetes capital of the world”. A pre experimental study was conducted to assess the effectiveness of structured teaching program on knowledge regarding selected self care practices among the Diabetic patients of a tertiary care hospital in Lucknow. **Methodology:** The subjects consisted of 30 patients suffering from DM type 2. Non probability purposive sampling using structured questionnaire was administered to the subjects to assess the effectiveness of structured teaching program. A structured health teaching program was conducted by using appropriate audio visual aids. The tool consisted of three parts, section A with socio demographic data, age gender, qualification, trade occupation, duration of illness. Section B about the knowledge regarding DM type 2 and section C on knowledge regarding selected health care practices. **Results:** Study findings revealed 50% of the respondents were in 40 – 46 years age group. Most of the subjects (40%) were educated up to primary school, majority of the subjects (30%) had Rs 30,000 as monthly income. Approximately 16 %, 66% and 18% of respondents had good, average and poor level of knowledge respectively. The present study elicits that in pre test maximum (50%) had excellent knowledge, 40% with Adequate Knowledge and rest with Minimum regarding self care in DM. In post test maximum (60%) had excellent knowledge and 40% with good knowledge regarding self care in DM.

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INTRODUCTION

India leads the world with largest number of earning the dubious distinction of being termed the “diabetes capital of the world”. According to the Diabetes Atlas 2006 published by the International Diabetes Federation, the number of people with diabetes in India currently around 40.9 million is expected to rise to 69.9 million by 2025 unless urgent preventive are taken. In 2008, an estimated 347 million people in the world had diabetes and the prevalence is growing, particularly in low and middle income countries. India had 69.2 million people living with diabetes as per the 2015 data. Of these, it remained undiagnosed in more than 36 million people. Diabetes is a chronic disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces. Insulin, a hormone that regulates blood sugar, gives the energy need to live.

If it cannot get into the cells to be burned as energy, sugar builds up to harmful levels in the blood. Overtime, high blood sugar can seriously compromise every major organ system in the body, causing heart attacks, strokes, nerve damage, kidney failure, blindness, impotence and infections that can lead to amputations. There are two main types of the diabetes. People with type 1 Diabetes, typically make none of their own insulin and therefore require insulin injections to survive. People with type 2 Diabetes, the form that comprises some 90 percentage of cases, usually produce their own insulin, but not enough or they are unable to use it properly. People with type 2 Diabetes are typically overweight and sedentary, two conditions that raise person’s insulin needs. It may also be seen during pregnancy. The complications of Diabetes mellitus are far less common and less severe in people who have well controlled blood sugar levels. Acute complications include hypoglycaemia and hyperglycaemia, diabetic coma and non ketotic hyperosmolar coma. Chronic complications occur due to mix of microangiopathy, macro vascular disease and immune dysfunction in the form of autoimmune dysfunctions in the form of autoimmune response or poor immune response, most of which are difficult to manage. microangiopathy can affect all vital organs, kidneys, heart, and brain, as well as

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eyes, nerves, lungs, and locally gums and feet. Other health problems compounding the chronic complications of diabetes such as smoking, obesity, high blood pressure, elevated cholesterol levels, and lack regular exercise which are accessible to management as they are modifiable. Non modifiable risk factors of diabetic complications are type of diabetes, age of onset, genetic factors, both protective and predisposing have been found.

Review of Literature

A Randomized study (2007) was conducted by Andrew Farmer, in United Kingdom on self monitoring of blood glucose in the management of patient with non-insulin treated type 2 diabetes. 453 patients were selected (mean age 65.7 years). And Interventions provided for (n=152). Standardized usual care with measurements of HbA_{1c} every three months done in the control group, (n=150) blood glucose self monitoring with advice for patients to contact their doctor for interpretation of results, in addition to usual care, and (n=151) blood glucose self monitoring with additional training of patients in interpretation was done. Findings revealed in improving glycemic control compared with usual care. A study was conducted by Gulabani M, Issac R, John M to assess the self care knowledge on diabetes among Diabetic patients in Warangal region. A 30-item questionnaire consisting of basic data of awareness, knowledge, misconceptions, diabetic care, complications, insulin usage was used in evaluating the knowledge. 456 patients had participated in the study. Study findings revealed that only 3.5 % diabetic population were with >80 % knowledge. 29.38 % population were with 60-79 % knowledgeable, in which men with 81 (35.52%) were more knowledgeable compared to women 53 (23.24%). There was a definite need to empower patients with the knowledge required to help them obtain maximum benefit from their treatment for diabetes.

An experimental study was conducted at Aarapadaiveedu Medical college and hospital in Pondicherry to determine the effectiveness of Structured Teaching Programme regarding knowledge on diabetic clinic. Simple random sampling technique was used in 110 patients to assess the knowledge on Diabetes mellitus. The findings revealed that 80% of the diabetic clients were in the age group of 45 years, among them 60% of them had acquired knowledge through health workers. There was no association between pre-test knowledge and demographic variables which was computed by chi-square test

Objectives

- To assess the level of knowledge regarding self care practices among Diabetic patients.
- To evaluate the effectiveness of Structured Teaching programme on knowledge regarding Diabetes mellitus among Diabetic patients in terms of gain in mean post test knowledge score.

METHODOLOGY

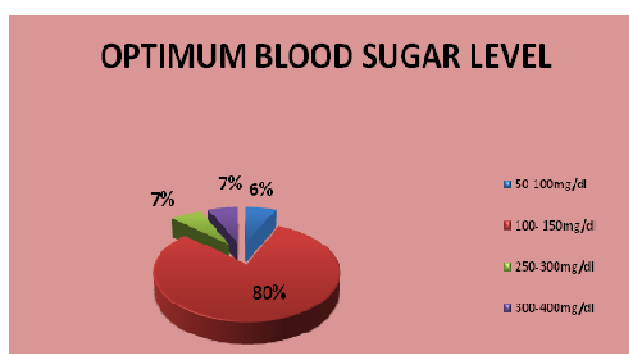
One group pre test – post test pre experimental research design was used in this study. The subjects size was 30. The subjects comprised of Diabetic type II patients, those were willing to participate and Literate and was conducted at endocrinology OPD. Non probability purposive sampling was used. The researcher explained the purpose of the study and a

questionnaire consisting of three sections was administered. A structured health teaching program was conducted by using validated content with proper audio visual aids. The tool consisted of three parts, section A with socio demographic data, age gender, qualification, trade occupation, duration of illness. Section B about the knowledge regarding diabetes mellitus type 2 and section C on knowledge regarding selected health care practices. To ensure the content validity of the tool and structured teaching programme it was given to 10 experts along with the blue print

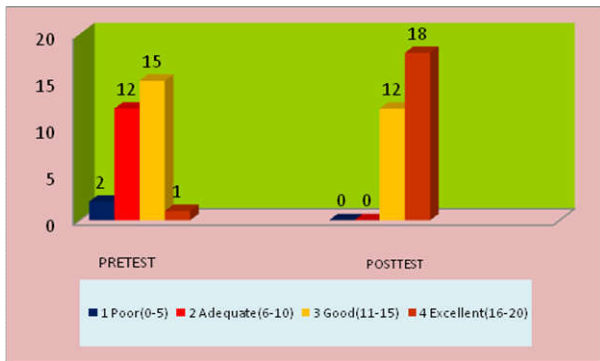
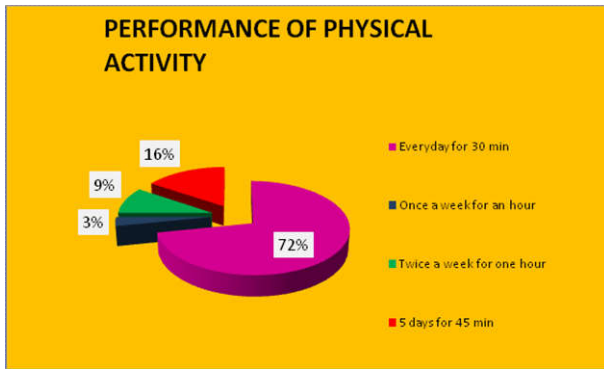
RESULTS

Most of the subjects (50%) were in the more than 60 year age group and only (3.33%) subjects were in 18-30 years of age group. Most of the subjects (40%) were educated upto primary school and only (10%) were graduate. Most of the subjects were unemployed (relatives of subjects).

Sr.no	Subjects Characteristics	Frequency	%
AGE (YR)			
1	18 – 30	1	3.33
	31 – 45	4	13.33
	46 – 60	10	33.33
	>60	15	50
EDUCATION			
2	Primary Education	12	40
	High Schooling	5	16.6
	Inter	10	33.33
	Graduate/post graduate	3	10
GENDER			
3	Male	13	43.33
	Female	17	56.66
OCCUPATION			
4	Unemployed	19	63.33
	Government job	9	30
	Private job	1	3.33
	Skilled job	1	3.33
MONTHLY INCOME			
5	RS <10000	5	16.66
	RS 11000 -20000	7	23.33
	RS 21000 – 30000	9	30
	RS >30000	9	30



Majority subjects were female patients (17). majority subjects were (30%) had Rs 30000 of monthly income and few were from low groups. Only 6.66% of respondents knew what exactly Diabetes Mellitus II is, 56.66% of respondents knew that it is decreased supply of insulin, 10% knew that first two options are the cause of DM I. Most of the subjects (80%) know that the optimum blood glucose level is 100-150mg/dl, 6.66% think that it should be 50-100mg/dl, 6.66% think that it should be 250-300mg/dl, 6.66% think that it should be 300-400mg/dl. Most of the subjects 22 (73.33%) were knowing the correct site of insulin administration and only few were not knowing



the correct site of insulin administration. most of the respondents(23) 76.66% knew that performing exercise everyday for 30 min is beneficial which is found to be correct where as only 3.33%of the respondents knew that performing exercise once a week is enough only half (50%) of the respondents knew that they have to check their feet everyday, 16.66% check only when blood glucose level raises, 23.33% check only when they have painful feet, 10% check every month during OPD visit. In pre-test maximum had (50%) had good knowledge and minimum (3%) had excellent knowledge regarding the self care in DMII. In post test maximum (60%) had excellent knowledge and nil had poor and adequate knowledge and rest (12%) had good knowledge regarding self care in DM Type II.

Conclusion

The above observation can be true only for the study population and cannot be generalised to other populations also, Patients interviewed could be expected to have better knowledge because of their multiple encounters with different health care providers. Diabetes is involving almost every community, with its increasing magnitude in areas of common complications. Early detection and prompt treatment is a challenge the exact etiology is unknown; no vaccine is yet available for protection against diabetes mellitus type 2 except widespread awareness regarding risk factors and its prevention at primary level.

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