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A Study to Assess the Effectiveness of Self Instruction Module on Knowledge, Attitude, and Practice Regarding Prevention of Complications among Diabetic Patients in Selected Hospitals in Pune

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Abstract: ***Sample size is 60 samples . Sampling Technique: Convenient sampling is selected as it is the easiest, fastest, most convenient, accessible and most proximal to the researcher. Description of the tool: The tool has four sections: Section A: is demographic data. Section B: 20 multiple choice questions. Section C: Rating scale. Section D: Checklist. Methodology: Quantitative evaluative Pre-experimental design with one group pre-test and post-test. Data Collection Process: Informed consent obtained from the samples after explaining the process and uses of the study. Pretest has done. Intervention – self instruction module was given to the group. Post test was done. Conclusion: The burden of diabetes is increasing globally, particularly in developing countries. Self instruction module is a simplest technique easy to understand, which is considered to be appropriate for the diabetic patients and applicable for them to prevent complications.***

Keywords: effectiveness , self instruction module , prevention ,complications, diabetes.

1. Introduction

Diabetes is the most common metabolic disorder affecting populations in all geographical regions of the world. The World Health Organization (WHO) has projected that the prevalence of diabetes is increasing in epidemic proportions especially in developing countries. India has the highest number of people with Diabetes in the World. Over time, diabetes can damage the heart, blood vessels, eyes, kidneys, and nerves. Diabetes increases the risk of heart disease and stroke. 50% of people with diabetes die of cardiovascular disease (primarily heart disease and stroke).

2. Review of Literature

Microvascular complications are the major outcome of type 2 Diabetes Mellitus progression, which reduce the quality of life, incur heavy economic burdens to the health care system and increase diabetic mortality. Alia Ali, FarrukhIqbal, AzeemTaj, ZafarIqbal, conducted a study at diabetic clinic of Sheikh Zayed Postgraduate Medical Institute, Lahore Pakistan. The aims of this study were to assess the prevalence of microvascular complications among newly diagnosed type 2 diabetic patients and to analyze the association between these complications and poor glycemic control. They divided the patients into two groups: Group I with good glycemic control (HbA_1c <6.5) and group II with poor glycemic control (HbA_1c >6.5). In group II microvascular complications were 89.8%. This study showed that even in newly diagnosed type 2 diabetic patients who had poor glycemic control, frequency of microvascular complications is much higher as compared to those who had average glycemic control.

Prevalence of diabetes is on an increase in India, high prevalence of micro vascular complications was present at diagnosis along with association of CV cardiovascular risk factors among Indian T_2D.

Aravind Sosale**,** KM Prasanna Kumar**,** SM Sadikot, Anant Nigam, Sarita Bajaj, AH Zargar, et.al conducted a cross-sectional survey **t**o determine the prevalence of chronic complications in newly-diagnosed Type 2 diabetic patients in India. The result showed that of the total 4,600 (males 67%, females 33%) newly diagnosed patients with T_2D, majority were from the age group 41-50 years. 13.15% of newly detected T_2D had neuropathy 6.1% had retinopathy and 1.06% had nephropathy. Risk factors of macro vascular complication such as hypertension, obesity, and dyslipidemia were observed in 23.3%, 26%, and 27% of patients respectively. Ischemic heart disease was noticed in 6%. . In view of this, screening must be instituted for all diabetics for complications at the time of diagnosis itself.

The burden of diabetes and its foot complications is increasing in India. Suman Saurabh, Sonali Sarkar, Kalaiselvi Selvaraj, Sitanshu Sekhar Kar, S Ganesh Kumar, Gautam Roy ;conducted a study to assess the risk factors of poor diabetic foot care and to find the effectiveness of health education in improving foot care practice among diabetes patients. The results showed that only 54% were aware that diabetes could lead to reduced foot sensation and foot ulcers. The patients with poor, satisfactory and good practice scores were 44.7%, 35.9% and 19.4% respectively. Low education status, old age and low awareness regarding diabetes were the risk factors for poor practice of foot care. Foot care education for diabetics in a primary care setting improves their foot care practice and is likely to be effective in reducing the burden of diabetic foot ulcer.

3. Research Methodology

Pre experimental one –group pretest –posttest design is adopted for the present study which aimed to assess effectiveness of intervention, self instruction module on knowledge, attitude, and practice regarding prevention of complications among diabetic patients in selected hospitals in Pune. With this research design the researcher attempts to test how effective the intervention is in improve the knowledge, attitude, and practice regarding prevention of complications among diabetic patients.

4. Discussion

This study was carried out to test the hypothesis that significant difference between pretest score and post test score on knowledge, attitude and practice regarding prevention of complications among diabetic patients. The findings lead to the acceptance of the hypothesis that there was significant difference between pretest score and post test score on knowledge, attitude and practice regarding prevention of complications among diabetic patients.

The majority of the samples were 40-45 years of age. According to CDC in 2011, 12% were diagnosed at age 30–39 years, 21% of the adult incident cases of diabetes were diagnosed between the ages of 40 and 49 years. About 29% were diagnosed at age 50–59 years.48. The majority of the samples were males. A similar report were was also given by CDC, In 2012 there were an estimated 15.5 million men and 13.4 million women diagnosed with diabetes. That means about 13% of men in the United States and 11% of women are affected by diabetes(49).The present study showed that respondents with <12 years of education had excess risk compared with those with more education for diabetes. A similar report also given by International Journal of Epidemiology which showed that respondents with <12 years of education had 50% excess risk compared with those with more education. (49) (50). Thus the present study is in alignment with studies done at global and South East Asian countries.

Occupation and income and marital status were not significantly associated with increased risk of diabetes. A similar report was also made in a study published in International Journal of Epidemiology by Sacerdote C, Ricceri F, Rolandsson O et al which reported that income and occupation were no longer significantly associated with increased risk. 50 The present study showed that the difference of incidence of Non vegetarian (46.7%), and Vegetarian (33.3%) for diabetes. a similar study conducted by Nico S. Rizzo et al which reported that the diabeted was highest in nonvegetarians (39.7%), and lowest in vegetarians (25.2%). 51 Self instruction module is very effective for prevention of complications among diabetic patients. It is important that people with diabetes get adequate information regarding diabetes and its management to improve their quality of life.

5. Main Findings of the Study

8.3% of the diabetic patients had age 30-35 years, 13.3% of them had age 35-40 years, 45% of them had age 40-45 years and 33.3% of them had age 45-50 years.

66.7% of them were males and 33.3% of them were females.

5% of them were illiterate, 33.3% of them had primary education, 56.7% of them had secondary education and 5% of them had other education.

38.3% of them had private service, 33.3% of them had government service and 28.3% of them had other occupation.

26.7% of them had family income Rs.5000-10000, 36.7% of them had income Rs.10000-25000, 28.3% of them had family income Rs.25000-50000 and 8.3% of them had family income Rs. 50000-100000.

33.3% of them were vegetarians, 46.7% of them were non-vegetarians and 20% of them were egg vegetarians.

80% of them were married, 10% of them were unmarried and 10.5% of them were divorced.

In pretest, 48.3% of the diabetes patients had average knowledge (score 6-10), 31.7% of them had poor knowledge (score 0-5) and 20% of them had good knowledge regarding prevention of diabetes complications. In pretest, majority of 71.7% of the diabetes patients had least favorable attitude (score 15-35) and 28.3% of them had favorable attitude (Score 36-55) regarding prevention of diabetes complications. In pretest, 13.3% of the diabetes patients had poor practices (Score 0-3), 48.3% of them had average practices (score 4-7), 36.7% of them had good practices and 1.7% of them had very good practices (score 12-15) regarding prevention of diabetes complications.

In pretest, 48.3% of the diabetes patients had average knowledge (score 6-10), 31.7% of them had poor knowledge (score 0-5) and 20% of them had good knowledge regarding prevention of diabetes complications. In posttest, majority of 83.3% of them had very good knowledge (score 16-20) and 16.7% of them had good knowledge (score 11-15) regarding prevention of complications. This indicates that there is remarkable improvement in the knowledge of diabetes patients after self-instructional module regarding prevention of complications.

6. Scope of the Study

The findings of the study have implications for nursing practice, nursing education, nursing administration, and nursing research.

a) Nursing Practice

The findings of this study showed that Self Instruction Module is effective for increasing the knowledge, attitude and practice of diabetic patients regarding prevention of complications. This result can be used effectively in nursing practice in the hospital setting as well as community setting.

This self instruction module is very simple and easy to understand to the patients, which will benefit their health outcome.

b) Nursing Education

The nursing curriculum should include opportunities and learning experiences to make students assess, plan, implement and evaluate nursing interventions related to prevention of complications among diabetic patients. nurses, both in community and hospital settings should be given educational programmes to be updated on the measures of prevention of complications that will benefit those people suffering from diabetes mellitus.Student centered projects could be given for developing Modules that is related to different disease condition helps the patients in self care as aindirect Nursing Interrvention.

c) Nursing Administration

Self Instruction Modules could give in OPDs; Nurses can use SIM for giviving Health Education to relatives and provide SIMs at the time of Discharge with other documents.

d) Nursing Research

Nursing research promotes nursing profession establishing a scientific base of knowledge for nursing. The research methodology used in the present study can be used as avenues for future research in the same or different context. Exploring the different ways in which the present study can be done will also help in exploring new ideas and gain different evidences for nursing practice.

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