Research Article

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A STUDY TO FIND THE CORRELATION BETWEEN SELF-CARE AND GLYCEMIC CONTROL OF DIABETIC CLIENTS IN A SELECTED TERTIARY CARE HOSPITAL

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ABSTRACT

Advancements in science and technology have brought many changes in the life style of the present generation. Relying too much on these sophisticated facilities put our health at risk. Leading a mechanical life is another factor which adds fuel to the flames. Growing incidence of life style disorders are at an alarming scale now. Diabetes, Hypertension, CAD and Cancer are some of the important lifestyle disorders. Among these diabetic epidemic is growing fast. Prevention and management with the help of life style modifications are the need of the hour. The present study aims at assessing the self-care among the diabetic clients in order to find the relationship between the self-care and glycemic control by adopting quantitative research approach with descriptive design. The study is conducted at Karuna Medical College Hospital, Chittur and Palakkad. A sample of 50 is selected by using simple random sampling technique. The data were collected by using Toobert and Glasgow summary of Diabetes self-care activity questionnaire. The Data were analyzed by using descriptive and inferential statistics. Self-care among the diabetic clients were not satisfactory. The self-care scores obtained by the individuals were grouped into four categories. The scores indicate that 56% of them were in the poor category and 40% of them were in the average category. The calculated correlation coefficient between self-care and PPBS (0.369), FBS (0.327), HbA1C (0.404) has proved that there is a relationship between self-care and glycemic control. The Self-care can be considered as an important intervention in promoting glycemic control. Since self-care practice among the clients are poor it is considered that measures to be taken to promote the self-care which is the need of the hour.

Keywords: Self-care, Diabetes mellitus, glycemic control

INTRODUCTION

The advancement in technology has brought several changes in human life. The present generation of people knowingly or unknowingly putting their life at risk by adopting non healthy habits and behavior. The growing incidence of life style disorders can very well be prevented or managed in an efficient manner by adopting healthy lifestyle. Obesity and dietary habits are the most important factors which contribute the risk of the life style disorders. Diabetes is also one of the most important lifestyle disorders. Life style interventions like healthy life style, strict adherence to diabetic diet, avoidance of smoking and alcohol are some of the important measures to control HbA1C levels.[1] Now India has become the diabetic capital of the world. Genetically Indians are prone to get diabetes. Unhealthy lifestyle adds fuel to this fire. The global prevalence of diabetes was

estimated to be 9% in 2014. WHO projects that diabetes will be the 7th leading cause of death in 2030 (WHO 2014). The prevalence of diabetes is increasing at a faster rate. The WHO reports that more than 60% of world's diabetic population is from Asia and India has become a diabetic capital of the World[2.]

The management of diabetes requires skill in appropriate decision making in each and every moment of daily life. It is a 24*7 approach. Diabetes self-management means the individuals are in charge of making healthy choices everyday which ultimately will keep the blood sugar levels as close to normal as possible and promoting a sense of wellbeing and prevents complications.

The need for diabetes care is not only limited to good glycemic control but also preventing complication, disability limitation and rehabilitation. There are seven self-care components like healthy eating, being physically active, monitoring blood sugar, compliance with medication, good problem solving skills, healthy coping skills and risk reduction behaviors were positively correlated with glycemic control, reduction of complications and improvement in QOL. Hence a systematic integrated approach is required for promoting self-care practices among the diabetic clients [3]. There are many factors which affect the self-care behavior of individuals. They are age, patient satisfaction with doctor, personal stress and family context[4]. These factors are to be kept in mind when planning a self-care intervention. Diabetes self-care program should focus on problem solving skills, increasing self-efficacy and support from family and community.[5]

The studies undertaken have proved that there is a strong relationship between depression, self-care and medication. Interventions promoting self-care will certainly solve the associated problems[6]. Diabetes self-management support program implemented in Thailand revealed that there was an improvement in glycemic control, healthy behavior and improved QOL in the intervention group when compared to the control group. Non adherence to self-care was mainly due to depression[7].

Statement of the problem

A descriptive study to find the correlation between self-care and glycemic control of diabetic clients in a selected tertiary care hospital.

Objectives

1. Assess the self-care of diabetic clients
2. Find the relationship between self-care and selected demographic variables.
3. Find the relationship between self-care and selected clinical parameters.

Assumptions

1. Self-care among diabetic clients in not satisfactory
2. There is a significant relationship between self-care and the clinical parameters and demographic variables.

METHODOLOGY

Approach: The quantitative research approach was used in this study. In the present study, the components of self-care of diabetic clients were measured quantitatively and it was correlated with the clinical parameters and demographic variables.

Design: The descriptive survey design was used to assess self-care and clinical parameters of diabetic clients attending the outpatient departments and Inpatient department.

Population: The Individuals who were diagnosed to have diabetes and attended the OPD and IP during the time of data collection are the population for the present study.

Sample: The individuals who fulfilled the inclusion criteria were selected as samples.

Inclusion Criteria

1. Individuals diagnosed to have diabetes
2. Those who can read and write in the local language
3. Individuals whose HbA1 level above 7%
4. Those who are willing to participate in the study

Exclusion Criteria

1. Individuals aged above 60
2. Individuals with diabetes related complications

Sampling Technique: The simple random sampling technique was used to select samples for the study. All patients who fulfill the inclusion criteria were enrolled in a register. By lottery method the required number of samples were selected.

Sample Size: A sample of 50 were selected to collect the required data.

Tool for data collection: The tool contained three sections. Section A consisted of demographic variables of the samples like age, gender, education, employment status, Section B consisted of clinical parameters like weight, BP, PPBS, FBS, HbA1C and cholesterol of the clients and Section C was the Toobert and Glasgow summary of Diabetes self-care activity questionnaire.

Method of data collection: A structured interview schedule has been employed to collect the demographic characteristic and self-care practices of the diabetic clients. The required clinical parameters were obtained from the patient charts.

Ethical Clearance: The ethical clearance was obtained from the Institutional Ethics Committee (Reference number KMC/Cert/09/2014/10 dtd 3/9/14) and also obtained informed consent from the diabetic clients.

Data Analysis

The descriptive and inferential statistics were used to analyze the data. Majority of the respondents were between the age group of 50 - 60yrs and males are under graduates working in private sectors. All the respondents in the sample were married. The mean duration of illness was less than 3 years. It is noticed that around 18% of the respondents have the history of smoking and alcoholism. The calculated mean weight was 76.2kg, Systolic BP was 131mm of Hg, Diastolic BP was 82 mm of Hg, PPBS was 280 mg/dl, FBS was 83mg/dl, HbA1C was 10.5, and Cholesterol was 203gm%. The self-care scores of individuals were classified into four categories. Excellent (0%), Good (4%), Average (40%) and Poor (56%). The study states that more than half of the individual's self-care is in poor category. Since self-management in diabetes is an essential and cost effective intervention but it is not followed by many of the diabetic clients.

The present study also attempted to correlate the self-care and the clinical Parameters. It was statistically proved that there is a correlation between self-care and PPBS, FBS and HbA1C. The calculated r value between self-care and PPBS was 0.369 ($p < 0.01$), the calculated r value between self-care and FBS was 0.327 ($p < 0.05$), the calculated r value between self-care and HbA1C was 0.404 ($p < 0.01$). Hence it is proved that there is a correlation between self-care and glycemic control. The relationship between self-care and demographic variables are also assessed and found that there is a relationship between self-care and employment status (r = 0.329 $P < 0.05$).

RESULTS AND DISCUSSION

The results of the study have proved that strict adherence to self-care behaviors significantly improve glycemic control and reduce weight[8]. Self-care activities with respect to diet and exercise are poor whereas blood sugar monitoring and drug adherence are good in urban southern India[9]. The present study reveals that majority of the diabetic clients do not have enough knowledge on self-care. Self-care scores obtained by the respondents are not satisfactory. There is a significant relationship identified between self-care and clinical parameters like PPBS, FBS and HbA1C. It is also found that there is an association between self-care and employment status. There is an urgent need to empower people on self-management for better outcome [10].

Implications

The management of diabetes is the main responsibility of the client. The other members in the health team help the patient to achieve the desired goals of treatment. When the client fails to follow the required healthy life style no doubt that all the efforts taken by the health team and the family members will not serve the purpose. The present study clearly states that the expected self-care among diabetic clients are not satisfactory and it is also found that there is a relationship between self-care and glycemic control. So clients should be motivated to adopt self-care strategies in their day to day life to lead a healthy life even with diabetes. There is an urgent need for uniform standardized protocol for self-management because there are many factors which lead to either good or poor self-care. Self-care curriculum should be included in the nursing and other health care courses and it should also be implemented in the daily practice. It was noticed that the clients are loaded with information but they fail to adopt the desired changes in their daily life. The role of health team members is very important in inculcating self-care attitude among the diabetic clients.

CONCLUSION

It is found that the self-care practices of diabetic clients are not satisfactory. There is a relationship between self-care and glycemic control. The necessary measures have to be taken to promote self-care practices among the individuals. So that the desired glycemic control can be achieved and many of the complications can be prevented. To make self-care more effective there should be a standardized protocol for a self-management among diabetic clients. Self-management is the most important step in preventing complications related to diabetes.

"Prevention always better than cure".

REFERENCES

1. Abdul Sukkur M, Shrikanth P H. Under standing diabesity or sthoola prameha as a lifestyle disorder. Int. J. Res. Ayurveda Pharm. 2015;6(5):580-582 http://dx.doi.org/10.7897/2277-4343.065108

2. Ambady Ramachandran et al. Trends in prevalence of diabetes in Asian Countries. Diabetes in Asian Countries. 2012 June 3(6): 110 - 117

3. Teresa L Albright et.al. Role of self-care behavior in adults with type 2 diabetes: An PRNest study. Family Medicine. 2011 May 33(5): 354 - 360

4. Saurabh Ram Biharilal et.al. Role of self-care in diabetes. Journal of diabetic and mental disorder 2013 March. 12 (14): 1 – 5

5. Dianek King et al. Self-efficacy, problem solving and social environmental support associated with diabetes self-management. Diabetes Care. 2010 April 33(4): 751 - 753

6. Sagili Vijaya Bhaskar Reddy Eesh Bhatia. Intensive glycemic control in type 2 diabetes mellitus: Does it improve cardiovascular outcome. The National Medical Journal of India. 2011 24(1): 21 – 27

7. Jafery S Gonzalez et al. Depression, self-care and medication adherence in type 2 diabetes mellitus. Diabetes Care 2007 Sep 30 (9): 2222 - 2228

8. Helen Jones et al. Changes in diabetes self-care behaviors make a difference in glycemic control. Diabetes Care 2003 March 26 (3): 732 - 737

9. Gopichandra et.al. Diabetes self-care activities: A community based survey in urban southern India. The National Medical Journal of India. 2012 25 (1):14 - 18

10. Swetha Thungathrthi et al. Self-care knowledge on diabetic among diabetic patients in Warangal region. International Journal of life science and Pharma Research. 2012 April - June 2012 2 (2): 16 - 21

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