OPENING MINDS:
RESEARCH FOR SUSTAINABLE
DEVELOPMENT

Factors Related to Self-Care Practices among Patients with Type 2 Diabetes Mellitus: A Descriptive Study

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1 INTRODUCTION

Diabetes Mellitus (DM) is a chronic metabolic disorder which is caused by the deficiency of the hormone Insulin and is mainly characterized by hyperglycemia which affects every system in the body. Diabetes causes several complications such as cardiovascular diseases, nephropathy, retinopathy and neuropathy which can lead to chronic morbidities and mortality. Diabetes can occur due to the deficiency of Insulin production in the body (Type 1 DM) and due to body's ineffective use of Insulin (Type 2 DM). The exact cause for type 1 diabetes is not identified and it is currently not a preventable disease. A vast majority of people suffer from Type 2 DM around the world. Even though Type 2 DM is labeled as a disease which is seen only in adults, with the transition a person's life style it has begun to occur among children as well.

Due to the chronic nature of this disease, most of the diabetic patients are treated as out-patients, and therefore, they have to control and manage the disease at home through self-care practices. Self-care in diabetes can be defined as a process which is characterized by the development of knowledge or awareness by learning how to survive with the complex nature of diabetes in their social context. A set of behavioural patterns belongs to self-care practices such as healthy eating, being physically active, monitoring of blood sugar levels, compliant with medications, good problem-solving skills, healthy coping skills and risk-reduction behaviour which should be practiced by people with or at risk of diabetes in order to successfully manage the disease on their own which are identified to be positively correlated with good glycemic control, reduction of complications and improvement in quality of life (Shrivastava, Shrivastava and Ramasamy, 2013).

2 METHODOLOGY

2.1 Study Design and Sample

A descriptive cross - sectional study was conducted among 300 patients above the age of 18, who have been diagnosed with Type 2 diabetes and who has visited the diabetes clinic at the Teaching Hospital, Kandy for more than three months.

2.2 Ethical Clearance

Ethical approval was obtained from the ethics review committee of the Teaching Hospital, Kandy. Informed written consent was obtained from every participant prior to their involvement in the study.

2.3 Study Instrument

A pre-tested self-administered questionnaire was used for data collection**.** Questions were included under 03 sections which was based on demographic data, knowledge regarding self-care practices and barriers related to self-care practices.

2.4 Data Analysis

Sample characteristics were analyzed by using descriptive statistics, SPSS version 16 was used as the data analytic tool.

3 RESULTS AND DISCUSSION

Among 300 participants 51% were male and 49% were female. Majority of the respondents (66%) were educated up to G.C.E Ordinary Level.

Table 1: Demographic details of participants

Description		Amount	Percentage
Gender	Male	153	51%
	Female	147	49%
Age group (years)	18-30	7	2.30%
	31-45	36	12%
	46-60	127	42.30%
	Above 61	130	43.30%
Marital status	Married	253	84%
	Unmarried	44	14%

Among the participants 82.3% possessed a sound knowledge about a diabetic's diet, 80.3% carried out regular blood glucose monitoring and 84% were under regular medication while 20.3% possessed poor knowledge regarding regular exercises. A similar study conducted with newly diagnosed type 2 diabetics in Bangladesh, has found that the majority of respondents had average basic (66%) and technical (78%) knowledge regarding diabetes mellitus and they emphasized the importance of the patients' knowledge level to bring about positive changes in self-care practices with regard to diabetes control (Saleh *et al.,* 2012).

Study showed that the total sample has identified a medical officer as the major source of information (Figure 1) and a majority has identified a nursing officer as a source (51.3 %.). Even though the internet is an important resource, only few participants (11.6%) have identified internet as a resource for gaining knowledge which suggests the reluctance of accessing new technology to learn about the disease. A study conducted in December 2001 estimated that approximately 40% of the adult US population with Internet access used the Internet for health care information and pointed out the importance of encouraging patients to access internet (Baker *et al.,* 2003).

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When considering the barriers related to self-care practices, 71.3% of the respondents have identified the long waiting time in the clinic as a major reason. Some of the participants have identified the difficulties in doing outside investigations (36.6 %) and transport problems (27.3%) as barriers. While a fewer number of patients had language problems in the clinic (8.6%).

A qualitative study has been conducted to explore the factors which influences the quality of diabetic care provided in primary health care in Oman and it has revealed several factors which could affect the quality of diabetic care including delays in getting appointments; lack of proper utilization of the waiting area for the purpose of health education; language barriers with diabetic nurses; inadequate provision of continuity of care; lack of sufficient clarification of disease related issues; delays in obtaining investigation results; long waits for ophthalmology appointments, inadequate supplies of prescribed medications to cover the time between appointments, and lack of referrals to dieticians (Al-Azri *et al.*, 2011).

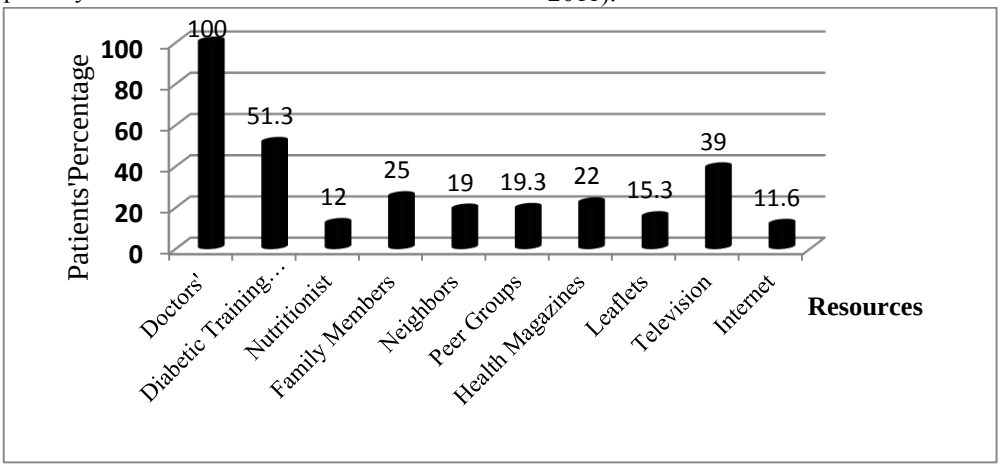

Figure 1: Resources used for gaining knowledge regarding self-care practices

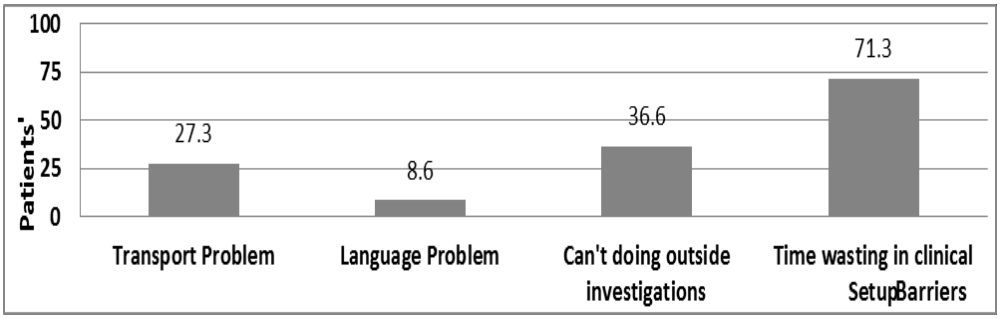

Figure 2: Barriers related to the self-care practices in a clinic set-up

Among the participants of the study sample, most of the participants have family support ~~to~~ in regular clinic visits and investigations (63.6%), to prepare a diabetic's meal (60%) and to take medications (42%). Some correlational studies have proved that there is a positive and significant relationship between family support and adherence to diabetes self-care practices (Miller and Di Matteo, 2013).

4 CONCLUSIONS AND RECOMMENDATIONS

Knowledge is the most important factor related to self-care as it directly influences ~~on~~ the patient's self-care behavior~~s~~. According to the study most of participants possessed a good knowledge level regarding some of the self-care practices like diet, regular blood glucose monitoring and regular medications, but a smaller number of participants knew about regular exercises, foot care and body checkups.

Results revealed that most of the participants faced common barriers relating to achieving self-care practices. Most of them faced many barriers when attending the clinic and there was reluctance to visit regularly due to the long waiting time, lack of facilities and difficulty in carrying out prescribed investigations from outside due to financial constraints. When the patients neglected the self-care practices, they faced difficulties in managing and controlling the disease and caused an in the number of recurrent admissions in hospitals.

To perform effective self-care practices attitudinal change is also required. Therefore recommendations can be made to implement programmes to change their attitudes simultaneously with the enhancement of knowledge for patients and family members because the family is an important aspect of adherence to diabetes self-care practices

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