Knowledge and Coping Strategies among Diabetic Patients in AL-Wafa'a Centre in Mosul City

Eman Salem AL-Khafaf *

ABSTRACT

Background and aim: Diabetes mellitus is currently considered as one of the most invaders diseases. Diabetes self-care requires the patient to make many dietary and lifestyle changes. These changes called coping strategies. One of the biggest challenges for health care providers today is how to address the continued needs and demands of individuals with chronic illnesses like diabetes. The main aim of this study is to assess the knowledge and possible coping strategies that diabetic patients may have.

Materials and Method: A descriptive study was based in the present study. The data was collected from the patients who visit AL-Wafa'a Centre for Diabetes Mellitus Patients in Mosul Medical Centre from 1st Febrauary 2013 to 1st May 2013 using a structured questionnaire designed for this purpose. The sample utilized a systematic random sample to eliminate the ethical issues. A target number for the sample was 100 of patients with DM those visit AL-Wafa'a Centre for Diabetic Patients. A standard statistical package for social sciences (SPSS version 14) was used to analyze the collected data.

Results: The results show that there is a heavier distribution of respondents presented in the (46-65) age groups, representing (29 % and 36 %) of the total survey. The most of the participants were female presenting (66 %). Most of the participants have a good knowledge with DM.

Conclusions: The study concludes that diabetic patients have good knowledge about their disease, but they have less coping strategies in their awareness about daily checking their blood sugar and checking their eyesight periodically. In addition, the participants presented that there is an obvious psychological distress and low self-care which mean they have difficulty to cope with their disease.

Recommendations: Generally, this study suggests four coping skills can be taught and reinforced; these skills include social problem solving, communication skills training, including assertiveness training, cognitive behaviour modification, and conflict resolution. In addition, further studies are needed to deeply investigate the possible factors that may affect the coping strategies of patients with Diabetes Mellitus such as age and gender.

Key words: coping strategies, diabetes mellitus (DM), diabetic patients.

INTRODUCTION

Diabetes mellitus is currently considered as one of the most invaders diseases. It affects more than 25.8 million people of the United States' population, and it was the seventh leading cause of death based on USA death certificates in 2007. Diabetes is also a leading cause of blindness, nervous system disorders, kidney disease, amputations, periodontal disease, heart disease, and stroke (Centres for Disease Control and Prevention, 2011).

Margaret *et. al*. (2009) emphasized that the management of diabetes self-care is largely the responsibility of the patient. With more emphasis on the prevention of complications, adherence to diabetes self-care regimens can be difficult. Diabetes self-care requires the patient to make many dietary and lifestyle changes. These changes called coping strategies. Coping has been defined as a response aimed at diminishing the physical, emotional and psychological burden that is linked to stressful life events and daily hassles (Snyder, 1999).

On the other hand, the mental health burden that patients with diabetes face is worrisome. Compared to non-diabetic patients, there is a twofold increase in the severity of depression and anxiety among diabetes patients. The combination of psychological disorders and diabetes is especially damaging because it can have a negative impact on psychosocial and medical outcomes (Fisher *et. al.,* 2012).

It is important to focus on the diabetic patients with looking at a growing number of them and discover what kinds of information that they have about their disease and what are the coping strategies that they are using. From this view, the importance of this study is coming. The main aims of this study were and to assess the knowledge of diabetic patients about DM and to assess the possible coping strategies with DM that diabetic patient may have.

MATERIALS AND METHOD

A survey design was based on this study, using a structured questionnaire as the tool of inquiry. This questionnaire was prepared

* *Assistant Lecturer / College of Nursing / Mosul University*

especially for the present study and it contains two parts, the first one has the demographical data such as age, sex, residence, and level of education. The second part of this tool has twenty vary statements related to information about DM and coping strategies with this disease. These statements were divided into four sub-subjects, which are having knowledge about DM, feet and daily-life care, taking medications, and having psychological distress questions. The answers on these statements were by choosing one (Yes or No). The tool was written in Arabic language because the target sample of this study was the people who speak Arabic language. The study sample utilized a systematic random sample to eliminate the ethical issues. A target number of the sample was 100 of patients with DM who visit AL-Wafa'a Centre for Diabetic Patients in Mosul medical area from 1st to 20th February 2013, while the study conducted out between 1st February 2013 to 1st May 2013. To test the feasibility, validity and reliability of the present study's instrument, a pilot study was involved. This study conducted to examine the length, clarity, ambiguity, comprehensive, and strengthen the internal validity, and to detect if there is any difficulty in responding to these statements. The pilot study involved 10 experts from professional lecturers in the college of nursing at university of Mosul in Febrauary 2013. In addition, to eliminate the ethical issues that faced most researchers, a permission to conduct this research was taken from the Iraqi Ministry of Health (Nineveh Health Directorate). Furthermore, the researchers asked the participants to sign a voluntary consent form before filling the questionnaire. It is therefore the participation in this study was completely voluntary. The researchers also noticed the participants that all their information will be kept in anonymity and confidentiality. To analyze the collecting data of this study reaching the results, a Standard Statistical Package for Social Sciences (SPSS version 14) was used.

RESULTS

Table (1): ***Socio-demographical Data Analysis:***

Age	Frequency	Percent %
(16 – 25)	7	7.00
(26 – 35)	5	5.00
(36 – 45)	12	12.00
(46 – 55)	29	29.00
(56 – 65)	36	36.00
(66 – 75)	11	11.00
Total	100	100 %
Sex	**Frequency**	**Percent %**
Males	34	34.00
Females	66	66.00
Total	100	100 %
Residence	**Frequency**	**Percent %**
Urban	86	86.00
Rural	14	14.00
Total	100	100%
Education Level	**Frequency**	**Percent %**
Illiterate	42	42.00
Elementary	35	35.00
Secondary	17	17.00
University or Higher	6	6.00
Total	100	100 %

Table (2): ***Participants' Knowledge Statistics:***

Freq	Statement	Yes (%)	No (%)
1.	I know what is Diabetes Mellitus	58	42
2.	I know the signs and symptoms of DM (hypoglycaemia and hyperglycaemia)	74	26
3.	I know the foods that affect the level of blood sugar	81	19

4.	I have a lot of sweets	40	60
5.	I have less quantity of sweets since I had DM	86	14
6.	I have the medications of DM regularly	78	22
7.	I have Insulin injection regularly	86	14
8.	I check my blood sugar periodically	76	24
9.	I check my blood sugar daily	13	87
10.	I check my eyesight regularly	28	72

Table (3): ***Participants' Coping Strategies Statistics:***

Freq	Statements	Yes (%)	No (%)
1.	I wear special shoes to look after my feet	48	52
2.	I take care of my feet's hygiene	70	30
3.	DM makes me under stress	84	16
4.	I am doing my daily life activities like before having DM	39	61
5.	I disturb when I have DM medications or have Insulin injection	53	47
6.	I disturb when I should be under diet (eat less or without sugar)	69	31
7.	I make sport regularly	29	71
8.	I fell fatigue and tired since I had DM	85	15
9.	DM affects on my relation with my family and relatives	49	51
10.	I do not like to go outside home after having DM	73	27

DISCUSSION

Table (1) presents the frequencies of the socio-demographical data. It shows that the heavier distribution of respondents present in the (46 - 65) age groups, representing (29 % and 36 %) of the total survey sample. It also shows the heavier percentage going to the female of the participants, which is (66 %) of all participants. In addition, the data illustrate the residence area of the participants in this study. It shows that (86 %) of them were from urban areas and around (14 %) of them were from the rural and sub-urban areas. Finally, the table shows that (42 %) of the participants were illiterate and (35 %) of them have elementary level of education, while only (23 %) of the participants have secondary and university or higher level of education.

One of the biggest challenges for health care providers today is how to address the continued needs and demands of individuals with chronic illnesses like diabetes (Alan *et. al*., 2000). Conversely, the challenge for patients is how to obtain the necessary skills to effectively manage their diabetes. Recent research has increased the emphasis on tight metabolic control as several large intervention studies have indicated maintaining good metabolic control can delay or prevent the progression of complications associated with diabetes (Wagner *et. al*., 2001; Steven and Thomas, 2013). Therefore, table (2) presents the percentages of participants' responding to the statements by tick (yes or no). It shows that there is generally a good knowledge among diabetic patients about their disease as it can be seen in the first five statements. While, diabetic patients have less awareness how they deal with that disease, for examples, they have less awareness in checking their blood sugar daily and checking their eyesight periodically as they answered on the 8th, 9th, and 10th statements. David D. *et. al*. (2006) emphasized that glucose control, take medication, and maintain normal body weight are almost entirely in the hands of the people who lives with this condition.

Table (3) shows there is a clear psychological distress and low self-care among the participated diabetic patients as presented in the last ten statements, which mean they have less coping strategies. However, Williams G. *et. al*. (1998) found patients who feel their health care provider understands and supports them, were more likely to have higher levels of self-confidence resulting in successful behaviour change. The self-care burden is largely the responsibility of the patient as Glasgow R. *et. al.* (2001) emphasized that the patient is the one who must decide which diabetes self-care strategies to practice, and ultimately they experience the results of those self-care actions.

CONCLUSIONS

Using the collecting data analysis and results, the present study concludes firstly it is a clear that diabetic patients have good knowledge about their disease. Secondly, the diabetic patients have less coping strategies in their awareness about checking their blood sugar daily

and checking their eyesight periodically. There is a clear psychological distress and low self-care, which mean they have difficulty to adapt and cope with their disease. The study also concludes that patients have different diabetes self-care coping strategies, which are influenced by their self-care health value and consequently may affect their diet and exercise choices, frequency of blood glucose monitoring, and compliance with prescribed medication regimens. Finally, counselling on self-care coping strategies may be beneficial to patients with poorly controlled diabetes or those patients who want more flexibility in their self-care regimen. Gender, age, type of diabetes, and regimen should also be considered when counselling patients on self-care management.

RECOMMENDATIONS

The study recommends that more research are needed to understand how are coping strategies affecting diabetic patients. Further studies are needed to deeply investigate the possible factors that may affect the coping strategies of patients with Diabetes Mellitus such as (age, gender, residence, and the duration time that patient have had DM).

Several studies have suggested that patients with diabetes, both adults and youths, can benefit significantly by learning coping strategies that they can apply to dealing with diabetes (Grey et. al., 1999; Martha et. al., 2009). This approach is often called "coping skills training" or "problem-solving skills training" Coping skills training builds on traditional diabetes education by providing tools that help clients apply what they have learned on a day-to-day basis. Generally, this study suggests four coping skills can be taught and reinforced; these skills include social problem-solving, communication skills training, including assertiveness training, cognitive behaviour modification, and conflict resolution (Margaret, 2000).

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