SELF-CARE PRACTICE OF INDIVIDUALS SUFFERING FROM DIABETES

Ahmad Ali Al-Omari, *Rahmah Mohd Amin, San SanOo & Myat Moe Thwe Aung

Faculty of Medicine, Universiti Sultan ZainalAbidin, 21030 Kuala Nerus, Terengganu, Malaysia.

*Corresponding Author: rahmahamin@unisza.edu.my

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ABSTRACT

Diabetes mellitus is a worldwide problem and it is increasing dramatically. It is considered one of the main leading causes of death around the world. It is highly associated with morbidity and mortality. However, the prevalence of diabetes mellitus is predicted to rise in the future with increased risk factors that include urbanization, obesity, and a sedentary life style. This global prevalence of diabetes makes all health care institutions incompetent with patients’ day-to-day needs. The main focus in treating diabetes including: healthy diet regimen; taking medication; glucose check monitoring; solving problems, fluctuation glucose level; minimizing risks; activity tolerance; and psychosocial adaptation. There are many factors which impact the diabetes self-care practice and quality of life must be taken into consideration that include: socio-demographics factors, social support, psychosocial adaptation, marital status, availability of insurance, duration of diabetes, morbidities, family support, foot care, smoking cessation, cultural and spiritual issues. This paper reviews these factors and shows that there is a noticeable negative or positive impact on glycemic control for diabetic patients. It recommended for more attention to be given and to schedule a holistic regimen for treating diabetes practices mellitus.

Keywords: Diabetes mellitus; diabetes self-care practices; type 2 diabetes; chronic disease.


1.0 INTRODUCTION

Understanding diabetes self-care is fundamental to understanding diabetes itself. The science of diabetes and self-care and management practices has changed over time and it is influenced by contemporary personal, social and cultural values. As a health care provider, we focus more on the monitoring of blood glucose level and medications. It is a known fact that patients with chronic illness such as diabetes, their lifestyle, what they practice and do at home really influence their illness. We do not want them to control their sugar level two weeks before coming to the clinic. Their own determination to control blood sugar and awareness of their condition is most important. Moreover, many factors affect the role of self-care practice regarding patients with type 2 diabetes and influence the understanding of self-care practices.
among diabetes patients. Therefore, this paper will discuss many factors associated with Diabetes Self-Care Practice that play important role in treatment regimen for type 2 diabetic patients.

1.1 Factors associated with diabetes self-care practice

1.1.1 Socio-demographic factors

Khattab, Khader, Al-Khawaldeh, and Ajlouni (2010) conducted a research study on factors associated with poor glycemic control with diabetic patients’ type 2 in Jordan. Many factors were studied such as self-care management behaviors, socio-demographic, clinical characteristics, attitudes toward diabetes illness, barriers to adherence and daily use of diabetic medications. Also, body mass index and waist circumference were measured. Previous data were obtained from the patient’s file such as fasting blood glucose results, lipid profile and HbA1c equal or more 7% was considered poor management of blood glucose level. They found that patients who had a lower educational level, high percentage of BMI and LDL cholesterol, hyper triglyceridemia, long time with diabetes and hypercholesterolemia had poor diabetes control and on combinations with patients with using oral hypoglycemic agent and insulin had a high percentage (92.5%) of poor control of blood glucose level. The findings also show poor glycemic control among patients who did not follow a healthy dietary regimen, perform a self-glucose monitoring and adhere to medications and no exercising. Furthermore, about 38.1% of participants who performed self-glucose monitoring at home, around 91% expressed that they had a family support, 81.4% did not adhere to dietary regimen described by dietitians and 67.9% showed no participating in any physical activities. This research study reveals that a 65.1% of patients with diabetes had poor glycemic control which means that they had the HbA1c is greater than or equal 7%.

Another research study was carried out by Adwan and Najjar (2013) on the relationship between demographic variables (age, gender, income, level of education, marital status, duration of diabetes and type of diabetes) and self-care management of diabetes within diabetic patients in Jordan. The finding of this research shows that there is no relationship between demographics and self-care except duration of diabetes and income level, and high income patients had good self-care diabetes management.

As duration of diabetes increase, the self-care management becomes worse. Another research study was carried out in urban and rural areas in north part of Iran about the relationship between socio-demographics factors and diabetes management. The findings illustrate that physical inactivity, obesity and socioeconomic status put at risk factors of diabetes mellitus morbidity. Moreover, poor knowledge of literacy resulted in poor knowledge of diabetes self-care management and there is no positive correlation between economic status and educational level with diabetes management (Veghari et al., 2010).

Severity of diabetes complications, poor knowledge, long term treatment, and high cost treatment with prolonged time are very important factors in determining for different types of treatment regimen. Self-care management is the corner stone in treating diabetes and promote healthy life style (Glasgow et al., 2002). Furthermore, self-care management focused on individuals with diabetes by performing activities and changing lifestyle behaviors that affect treatment of the diabetes disease (Audulv, Asplund, & Norbergh, 2012).
Moreover, self-care management is a complex combination of activities that provide a daily glycemic control and preventing or minimizing complications such as medication adherence, dietary and exercise pattern, foot care, self-monitoring of blood glucose level by using glucometer devise. Furthermore, exercise and dietary pattern are connected with low HbA1c level (Al-Khawaldeh, Al-Hassan, & Froelicher, 2012). In spite of the importance of self-care management for patients with diabetes, literature shows paradoxical findings related to adherence of diabetic patients with diabetes self-management, for example, patients with diabetes show high adherence to multifaceted self-care management like prescribed medications, foot care, self-monitoring of blood glucose, diet and exercise pattern (Arcury et al., 2012). On the other hand, other research studies found patients with diabetes had poor adherence to self-care management behaviors (e.g. Dixon et al., 2014).

1.1.2 Social support

Patients with diabetes engaged in self-care management were influenced by many psychosocial factors. Social support had a direct effect on diabetes self-care management behavior and decreases HbA1c level in blood (Daly et al., 2009). Moreover, social support afforded by health care professionals and family is characterized by a strong connection with decreasing weight for diabetic patients through motivation, regulating and encouraging them to perform activities related to diabetes management (Fortmann, Gallo, Walker, & Philis-Tsimikas, 2010). In addition, social support is considered as important predictor for patients' adherence to self-care management including dietary regimen and foot care (Watkins, Quinn, Ruggiero, Quinn, & Choi, 2013). On the contrary, poor diabetes self-care management is found to have lack of social support (Wilkinson, Whitehead, & Ritchie, 2014).

Diabetes self-care management behavior that improves glycemic control should be focused by patients themselves. Furthermore, family members should expand their knowledge about managing diabetes to empower and motivate their relatives about good diabetes self-care management as more than quarter of 65 years and above are affected with diabetes. Family support plays an important role in achieving good glycemic control for diabetes patients in the family (Baig, Benitez, Quinn, & Burnet, 2015). A group of patients with diabetes and their families should be engaged with an educational program for diabetes management. At the beginning of the program the A1c level was 8.5% and at the end of the program the A1c was 7.7% which reflects an improvement in knowledge of diabetes management (Hu et al., 2016).

1.1.3 Psychosocial adaptation/depression

Chronic illness like diabetes mellitus has major role in increasing morbidity and mortality (Zindah, Belbeisi, Walke, & Mokdad, 2008). This international prevalence of diabetes correlates with another disease like depression. Anderson, Freedland, Clouse, & Lustman (2001) conducted a meta-analysis study that shows diabetic patients are more depressed than non-diabetic patients in their illness lifestyle.

Al-Amer, Ramjan, Glew, Randall, and Salamonson (2016) conducted a research study on self-efficacy and depression through self-care activities among Jordanians adult with type 2 diabetes. Random samples of 220 participants with type 2 diabetes attending Jordan University Hospital in Amman were chosen. The study approved that 62% of participants had weakness
knowledge of self-management diabetes evidenced by high HbA1c ration above normal limit 7%. These findings support another study about self-care management of diabetes in Jordan people which reveals that Jordanians had poor knowledge with self-managing of diabetes (Albikawi, Petro-Nustas, & Abuadas, 2016). Furthermore, the American Diabetes Association (2014) shows that a 50 percent of affected diabetes did not accomplish good control of diabetes. This study shows high depression percentage among studied participants: 30 percent showed mild symptomatic depression, 20 percent of patients ranged between moderate and severe symptomatic depression and 26% revealed moderate symptoms of depression.

Depression is one of psychosocial factors that were common among patients with diabetes more than other population (Naranjo, Hessler, Deol, R., & Chesla, 2012). For example, around 25% of patients with diabetes had distress or depression related to diabetes illness (Snoek et al., 2011). Furthermore, depression influences self-care management behavior and their glycemic control (Zulman, Rosland, Choi, Langa, & Heisler, 2012).

1.1.4 Availability of health insurance

Lack of availability of health insurance with patients suffering from chronic diseases especially diabetes causes poor health and worsens the quality of life. Moreover, diabetic patients with no medical insurance and poor financial support will have limited access to buying medications, doing blood tests, eating healthy diet and appointments for seeking medical care that will result in poor glycemic control and re-hospitalizations (Madden et al., 2011). The cost for diabetes self-care management is a big concern for promoting health and improving quality of life (Kondro, 2004).

A research study was conducted by Bailey et al. (2015) to examine the relationship between patients with health insurance and without health insurance for preventive diabetes care in. The finding of this research was that patients with no medical insurance had poor glycemic control and reduced quality of life.

1.1.5 Duration of diabetes

The duration of diabetes mellitus had a relationship with A1c. Each one year with diabetes has 5% reduction in controlling blood glucose level. Moreover, a research study carried out in Hong Kong reveals that patients with long duration of diabetes need more treatment regimen regarding their poor controlling of glucose level (Tong et al., 2008). Furthermore, other studies show that long duration of diabetes correlates with hypertension incidence (e.g. Eid, Mafauzy, & Faridah, 2004). Long duration of diabetes influence blood glucose level negatively which may be related to prolonged impairment of insulin production from pancreas (UK Prospective Diabetes Study, 1998). So, as long as duration of diabetes increased, more pharmacological treatment is needed. In addition, a research study was conducted in Japan on the relationship between long duration of diabetes and the diabetes therapy needed. The findings reveal that the long duration of patients with diabetes type 2 need more complex therapy and treatment modifications (Hayashino et al., 2016). Moreover, Diabetes duration has a relationship between educational programs for diabetes and modifications of life style behaviors and normalizing blood glucose level (Ko et al., 2012).
2.0 CONCLUSION

The review of past research studies reveals that the treatment of patients with type 2 diabetes focuses on medication adherence and dietary regimen with the absence of doing physical activities and blood glucose monitoring as a part of diabetes management. In addition, there is a missing part related to the medical health care providers when offering patient educational program for the patients with type 2 diabetes with a holistic approach. However, it is obvious that all patients have had low diabetes self-care practices due to the lack knowledge in many factors that influence their treatment. Socio-demographics factors, social support, psychosocial adaptation, marital status, availability of insurance, duration of diabetes, comorbidities, family support, foot care, smoking cessation, cultural and spiritual issues affect glycemic control and disease process for the patients suffering from type 2 diabetes. Finally, changing life style and good educational program can improve glycemic control and minimize complications of diabetes patients.

REFERENCES


