**Self-management practices among diabetic patients: A concept Analysis**

**Abstract :**

Diabetes is recognized as a significant factor in both mortality and morbidity worldwide. While, the traditional approach to diabetes care has focused on medical professionals, recent research has indicated that self-care among patients is crucial. The aim of the study is to understand the different concept that will help to create diabetic education plan and services among diabetes patient to help reduce the risk of diabetes complication. A concept analysis was conducted, focusing on self-management education among diabetic patients. The findings highlights the importance of self-management education for diabetic patient during pandemic. It also suggest the importance of telemedicine for enabling self-care and preventing complications during times when access to in-person healthcare services is limited. This study helps health service providers develop plan of care to reach the patient which include offering services in the diabetic clinic and promoting telemedicine as alternative ways in seeking health services.

**Keywords:** Diabetes Mellitus, education plan, physical activity, self-management, telemedicine

**1.0. Introduction**

Diabetes Mellitus as one of leading cause of morbidity major health problem in Asia Pacific. (Center for Disease Control and Prevention in 2016; (Hossain et al., 2024; Ahmad & Joshi, 2023). Chronic diseases, including diabetes, avoided or delayed seeking medical attention for routine non-COVID-19-related problems due to fear of infection. Vamos, et.al. (2021). Evidence shows that People with diabetes are at increased risk of incident mortality and severe infection (Hussain,2020). There is limited new diagnosis and routine follow up for the patient. Khunti, et.al. (2022). It is important among diabetes patient the crucial task of self-care in responding to it. health-care professionals with an interest in diabetes, including those working in primary care, reported substantial service disruption (Forde, et.al. 2021; Abiodun & Akinade., 2021)

  Even country where they belong to first word has challenges in the accessibility making remote consultations and telehealth like socioeconomic inequality is associated with digital poverty, poor access to technologies, and poor digital literacy. Azeem,et.al.(2020) The disruption of public health measure has restricted the access of diabetes care limiting to self-management that require in reducing their risk of diabetes complications. Forde,et.al.(2020). Psychological problems (anxiety, diabetes distress and depression) and hyperglycemia has been reported as major concern. Nurses who rated the effect of the pandemic as having an extreme negative impact on diabetes care in general and in respect of self‐management support, diabetes education, technical care and psychological care. diabetes nurses who worked exclusively with people who have type 2 diabetes tended to rate the physical impact of the disease more highly.

Due to the increased levels of health anxiety in relation to the progression of Disease, health care professional must be aware towards concern. Joensen,et.al.(2020). However, diabetes patient must increase its compliance to the plan of care that the nurse will create for them. Establishing strong relationship will provide opportunity in the delivery of care. Although electronic consultation as one means to reach the people, engagement and evaluation must assess thoroughly the effectivity of. Online consultation towards definitive result. Integrated risk assessment and management strategies have been shown to improve self-management. Using of concept plotting has been attributed to the improvement of critical thinking in promoting, organizing and preparing complex information expansively.

**Objective**

To understand the different concept that will help to create diabetic education plan and services among diabetes patient to help reduce the risk of diabetes complication. This help to provide insight into the extent of services and identify strategies that will help to address the problems.

**2.0. Research Methodology**

This concept analysis was conducted using the Walker and Avant’s (2010) eight-step method. This method was used because it is one of the easiest and understandable methods for concept analysis, particularly for beginners. The eight steps of this method are: 1) Selecting a concept; 2) Determining the aims or purposes of analysis; 3) Identifying all uses of the concept; 4) Determining the defining attributes of the concept; 5) Constructing a model case; 6) Constructing borderline, contrary, invented, and illegitimate cases; 7) Identifying antecedents and consequences; and 8) Defining empirical references (Walker and Avant, 2010).

**3.0. Result and Discussion**

**3.1 Uses of concept**

Diabetes is a disease which is steadily increasingly entails complications and the need for lifelong treatment and care. Diabetes patient increase anxiety and have difficulty to go hospital to seek medical care.Patient education is important in the plan of care, failure to achieve the desired goals in the management of chronic illness such as diabetes have led health professionals to produce new solutions and use new technologies for the self-management of diseases. Education plays a significant role in the prevention of diabetes itself but also in preventing its complications. Successful implementation of some diabetes prevention programmed, and their cost-effectiveness has already been demonstrated. People with these conditions have faced some of the worst outcomes.  Singh, et.al.(2020)

**3.1.1 Self-management**

Holistic self-management approach such as understanding the factors such as regular glucose monitoring, medical nutrition treatment, adherence to regular drug use, and self-care behaviors ensuring adherence to physical activity. Eroglu, et. (2021) sufficient knowledge concerning diabetes management help patient to increase awareness towards care. During pandemic it hard to monitor the adherence of the patient. in corporation of family support will help the patient to improve self-management. Fear of infection, spread and isolation, uncertainty and loneliness bring about radical changes in daily life. Kang, et.al. (2021)

**3.1.2. Telemedicine approach**

The fundamental tool of telemedicine approach is important in clinical management during pandemic. Telemedicine has been proven to be very effective in remote areas with poor health facilities or access limitations It plays significant role in process of examination and clinical outcome. Telemedicine approach has opened the way for the use of mobile phone applications in managing diabetes and it has been stated that mobile phones are very effective tools for providing patients with the necessary information to control diabetes. The efficacy improving glycemic control, weight reduction and dyslipidemia and diabetic care and patient satisfaction. Opportunity to evaluate the potential benefits is relevant in understanding predictors that affect the quality of care.

**3.2 Critical attributes**

The critical attributes are the core of concept analysis is to determine the defining attributes of the concept, i.e. a group of attributes which have the strongest relationship with the concept and allows analyze to obtain a deep insight. These attributes differentiate the intended concept from similar or related concepts (Walker and Avant, 2010).

**3.2.1. Knowledge in diabetes management**

 Poor knowledge contemplates the outcomes of a failed blood glucose control. Fear and highly stressful situations contribute improper management. In the era of having diabetes and/or uncontrolled hyperglycemia is associated with poorer outcomes and more severe disease. Knowledge is important in understanding diabetes-related complication. For instance, is lacked knowledge about how to select low glucose diets, to manage their blood glucose level, including signs when they had high or low blood glucose contribute to overall management of diabetes. Phoosuwan,et.al.(2022). Diabetes literacy and knowledge, it is necessary to give education to patients and staff in diabetes

**3.2.2 Attitude Toward Adherence**

Nonadherence to the health regimen result to complication of diabetes. COVID-19 has disrupted everyone’s normal routine. Evidence showed that COVID-19 has resulted in a serious impact in level of blood glucose. Attitude towards understanding the importance of having positive attitude create wider perspective in the patient care. Barriers to access may be related to both financial constraints and physical barriers.  Good attitude towards DM complications helps patients to change any harmful dietary and lifestyle habits. Multiple possibilities for patients to misunderstand their condition’s seriousness, a holistic approach to diabetes management is needed to assist patients. Ofori,et.al.(2014)

**3.3 Model case**

A model case is a “real life” example of the use of the concept that includes all the critical attributes (Walker and Avant 1995). Example of this Ms. Cruz state that” Individuals with diabetes may be more susceptible to poorer outcomes. Significant issues such as hyperglycemia. As a Nurse it is important to address those Barriers to provide quality care to my patient. There are some scenarios that barriers such as fear, anxiety, and other factors brought by pandemic resulting in the reluctant of seeking health services in the management of diabetes. I witness the situation on how handle patient and creation of plan.

 The case represents on how nurse respond in situation where there is presence of challenges in the delivery of care during pandemic. Creation of health care plan design in care help the patient to lessen the issues and burden of the patient.

**3.4 Borderline case**

Borderline cases contain some of critical attributes of the concept being examined but not all of them (walker and Avant, 1995). The following is an example of boarder line case where in patient having difficulty of seeking care due to pandemic. “it is hard to seek care during pandemic because I fear to be infected with Covid, I understand the situation and as much that I consult for telemedicine, there is only limited access to it. Completing an initial assessment in diabetes nursing management is essential in adherence of patient care. The case represents on challenges on the patient during pandemic. Nurse must view patient attribute incitement, experiences and notion about health care and illness.

**3.5 Antecedent**

 Antecedents are events which happen before the intendedconcept (Walker and Avant, 2010). The antecedents of the concept of cultural competence are cultural diversity, cultural encounter and interaction, cultural humility, and organizational support.

 ***Encounter and interaction of health care provider***

 Encounter and interaction of nurse-patient relationship is important aspect in the establishment of trust. Interdependent professionals structure a collective action towards patients’ care needs.  transformation in developing. prevalence and the focus of improving health services for diabetes shifted from secondary to primary care, the improvements of such quality of cares new standards of care, in which knowledge, decisions and responsibility are shared. Poor adherence to physical activity, misconceptions of healthy diets, and inadequate knowledge and understanding of the roles of medications influenced many aspects of patients’ treatment.

**3.6 Consequences**

Consequences of a concept are events that happen due to its presence (Walker and Avant, 2010). The consequences diabetic education self-management include consequences related to care receivers, those related to care providers, and health-related consequences.

 ***Diabetic self-management skills***

The self- management has dramatically influenced many aspects of patients’ treatment. Plan of care is important in the management of the patient care. Health professional express opinions in the use of telemedicine. Other plan of care is relying in the diabetic clinic that will provide good quality care. Possessing knowledge in diabetes management like on how to keep the blood sugar within normal level is important in the self-management of diabetic patient. Shi, et.al.(2020). It also important in incorporation of family support and health care team to help the patient enhance their management skills into a action in daily activities to prevent complication. Khalooei, et.al. (2019).

***Self-management behavior***

 Positive outlook towards compliance of care is important to minimize complication. Self-management behavior is important in promoting ways to improve patient situation during pandemic. Regular physical activity is an important factor in improving metabolic outcomes and may increase insulin sensitivity and lead to glycemic control. Physical activity tends to have great benefit in preventing the development of complications relating to type 2 diabetes.Pamungkas et.al.(2020). Measures taken, isolation and social distancing restrictions have made it difficult for people with diabetes to exercise regularly and remain physically active. Kang, et.al.(2021). Overall, Support from health professionals is important for diabetic patients to develop their self-management. Support from health professionals was determined to be a significant risk factor about diabetes self-management. Khalooei, et.al.(2019)

**3.7 Empirical references**

The last step to concept analysis is to determine empirical references for the main attributes of the concept. Empirical references can further clarify the concept and facilitate its measurement (Walker and Avant, 2010). Based on diabetic education and self-management have different tools in assessing plans for self-management among diabetic patients. Diabetes self-management education helps to improve health outcomes and qualities of life for diabetic patients. It contributes to enhanced health outcomes, the quality of care, and the overall quality of life for diabetic patients, ultimately leading to reduced expenses and bringing about positive changes in lifestyle and self-care management. Powers,et.al.(2020)

 The theory of planned behavior shows comprehensive anchor in the social support and diabetes self-management of the patient. it was presented the importance of having positive behavior in the perspective of achieving overall health of the patient. The theory of plan behavior is an intrapersonal theory. Study reveals that strategies to promote self-management is through connection with social support. Wherein poor social support can lead to psychosocial barrier for diabetes self-management. Lee,et.al.(2017) In addition, the theory is beneficial as guide to different self-management education program for patient. This also help nurse find ways to develop contingency self-management program

The theory of planned behavior provides a theoretically guided framework for nurse practitioners to develop tailored strategies that include psychosocial support for diabetes self-management. In addition, self-care theory by Dorothea Orem emphasizes of self-care and self-care activity which is beneficial in achieving goals and to minimize complication of a diabetic patient.

**4.0 Conclusion**

The result shows the concept that related to self-management education for diabetic patient during pandemic. It highlights the self-management that telemedicine concept as ways to control measures in preventing further complication due to inaccessibility of services during care. Access to diabetes management resources such as outpatient office visits, routine screenings, medications, and self-monitoring supplies decreased or rapidly came to a halt. It indicated that the disease process could negatively affect glycemia thus it was predicted subsequent to have a negative effect on the health outcomes of people with diabetes.

 This study helps to create nurses plan of care to reach the patient which include offering services in the diabetic clinic which cater the needs of the patient and to promote telemedicine as alternative ways in seeking health services.

**Data Availability**

All the data generated and analyze are available upon request from the authors.

**Ethical Consideration**

Not Applicable

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