

Management of Diabetes:

Literature Review

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Management of Diabetes

Despite the well-known management of diabetes, uncontrolled diabetes admissions are increasing in America's emergency departments (Andreano et al., 2020). Researchers estimate the incidence of type 2 diabetes-related episodes of hyperglycemia to be 0.5-8 per 1000 person annually (Andreano et al., 2020). Diabetes mellitus increases the risk of a multitude of conditions known to decrease a person's quality of life (Capriotti et al., 2016). Reoccurring high blood sugars can lead to slow-healing sores, nerve damage, and damage to vital organs like eyes, heart, or kidneys (Capriotti et al., 2016). Individuals who have damaged these critical organs may experience other challenging adaptations like blindness and limb loss (Capriotti et al., 2016).

Hyperglycemia Management

Type 2 diabetes mellitus increases the risk of long-term complications (Capriotti et al., 2016). Management of type 2 diabetes mellitus helps to decrease the chances of developing a secondary complication. Medications can help manage type 2 diabetes, but lifestyle changes also aid in risk reduction (Whitehead et al., 2017). The primary purpose is to help individuals with type 2 diabetes achieve blood sugar within the recommended ranges (Whitehead et al., 2017). According to Whitehead et al. (2017), the critical question is, "how do we achieve blood sugars in the recommended ranges?" Of most importance in this article, patient education, including the management of blood sugar levels through diet, exercise, and training, contribute to significant changes in diabetes outcomes (Whitehead et al., 2017).

Key Points

In the article, *A Nurse-led Interdisciplinary Approach to Promote Self-management of Type 2 Diabetes: A Process Evaluation of Post-intervention Experiences*, the authors state managing diabetes mellitus type 2 involves education intervention or education intervention plus acceptance and commitment therapy intervention (Whitehead et al., 2017). The participants must understand the diabetes plan of care, so they can implement the changes and have improved outcomes (Whitehead et al., 2017).

In this study, one group of participants received education intervention only. The pathophysiology of diabetes, the risk factors and complications, foods, portion control, and diabetes management are crucial interventions (Whitehead et al., 2017). Two healthcare-based nurses taught the participants signs and symptoms of hyperglycemia and hypoglycemia (Whitehead et al., 2017). Participants who had diet and exercise were better able to adhere to their medication regimen and more successfully control their blood sugars (Whitehead et al., 2017). At six months post-intervention, those who received just the education had significantly improved blood sugar control (Whitehead et al., 2017).

The second group of participants received education plus an acceptance and commitment therapy intervention (Whitehead et al., 2017). Unlike education intervention alone, these participants receive a general overview of diabetes education (Whitehead et al., 2017). The acceptance and commitment therapy intervention focuses on participants' thoughts and feeling about their diabetes, as well as their acceptance or rejection of their diagnosis (Whitehead et al., 2017). This intervention combination was facilitated by a mental health nurse in a workshop which aimed to improve the participants' mental health through mindfulness and acceptance training (Whitehead et al., 2017). At six months post-intervention, researchers saw an increase in

diabetes management, but it was not as significant as the group who received only education (Whitehead et al., 2017).

The chronic nature of diabetes mellitus, combined with the need to learn and implement new lifestyle changes, can be overwhelming for patients (Whitehead et al., 2017). Individuals with diabetes must understand the importance of adaption and actively manage blood glucose levels to optimize their health (Capriotti et al., 2016). Participants in this study describe these adjustments as challenging (Whitehead et al., 2017). By increasing their knowledge and recognizing their responsibility to their health, participants were able to successfully adapt to their diabetes diagnosis (Whitehead et al., 2017).

In the follow-up interviews, one barrier a participant expresses there was a lack of understanding of the importance of medication regimen adherence (Whitehead et al., 2017). One participant mentions appreciated his newfound knowledge of neuropathy and proper foot-care (Whitehead et al., 2017). Through the workshops, participants in this study learned how to manage their blood glucose levels, prevent diabetes complications, and promote healthy lifestyles (Whitehead et al., 2017).

Assumptions

Increasing patient's knowledge about their condition increases their knowledge and gives them a sense of responsibility for their health (Whitehead et al., 2017). If individuals learn about their diabetes, it increases their knowledge and gives them a sense of responsibility. These interventions can decrease the risk of complications associated with diabetes, such as myocardial infarction, retinopathy, neuropathy, and kidney failure (Capriotti et al., 2016). As nurses, we must use this information to promote holistic well-being for our diabetic patients. The

consequences of inadequate education interventions are uncontrolled blood sugars, which can lead to atherosclerosis, neuropathy, development of wounds due to poor circulation, poor wound healing, and cataracts (Karimabad et al., 2020). While diabetes is a challenging diagnosis, the prevention of these co-morbidities enhances our patients' lives.

Deficit/Conclusion

Proper implementation of these interventions is essential for blood glucose control in diabetic patients. As mentioned before, diabetes mellitus is a challenging medical condition requiring strict management and lifestyle modifications. In-depth education, including disease pathophysiology, risks, and complications, helps patients with diabetes better understand their situation (Whitehead et al., 2017). By teaching patients about medication management, proper diet, and exercise regimens, their confidence increases and will have more success in disease management (Whitehead et al., 2017).

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Conclusion

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