

**Self-management of diabetes: Literature Review**

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12/03/21

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Diabetes is a disease that affects millions of patients every year in the US, with some of those patients are unaware they have the medical condition. Due to the significant impact of diabetes, patients must be appropriately educated with adequate skills and knowledge to maintain good health. If diabetes is unmanaged correctly, damage can occur to the heart, blood vessels, bladder, eyes, nervous system, and mental health (Nazario, 2020). Fortunately, hundreds of resources and aids help patients manage their condition with healthy eating, exercise, medications, and regular checkups (Nazario, 2020). To manage their diabetes appropriately, healthcare staff need to educate their patients with sufficient time and resources. Patients need information about the full effects of their illness, including competent management and manifestations of high and low blood sugar. Using literature review, researchers can identify and establish familiarity with and understand current research about a particular subject before conducting different investigations.

#### **Do patients value nutritional therapy? A quantitative study in type-2 diabetes patients**

Patients with type 2 diabetes tend to have higher adherence to pharmacological therapy than nutritional therapy or lifestyle change behaviors (Ezequiel et al., 2017). Time and time again, providers notice their patients valuing other types of interventions over nutritional therapy (Ezequiel et al., 2017). Because of this, this study aims to analyze the value that type 2 diabetic patients place on nutritional therapy and identify perceived barriers to nutritional therapy adherence (Ezequiel et al., 2017). The research study consists of a non-random sample of 62

patients receiving healthcare in diabetic clinics; researchers asked interviewees a series of questions using a semi-structured protocol (Ezequiel et al., 2017). The study's findings indicate that patients show poor dietary intake, with a prevalence of 36% of overweight patients and 53% of obese patients (Ezequiel et al., 2017).

### **Key Points**

Prevention and treatment approaches for type 2 diabetes generally consist of achieving stable blood glucose, management with patient education, and nutritional, physical, and pharmacological therapy (Ezequiel et al., 2017). Due to the chronic nature of diabetes and its associated complications, there is a dramatic need for adequate treatment and management (Ezequiel et al., 2017). This research study conducted a quantitative assessment of a non-random sample of type 2 diabetic patients to identify perceived barriers to nutritional therapy adherence (Ezequiel et al., 2017). Patients in the study were individually assessed by trained dietitians, using a semi-structured, face-to-face interview protocol regarding sociodemographic characteristics, lifestyle, physical activity, and dietary habits (Ezequiel et al., 2017). Researchers used a series of questions to ask patients to rate the importance of food, physical activity, and medication therapy for their diabetic management (Ezequiel et al., 2017). After completing the interviews, researchers collected data on waist circumferences, height, and weight using standardized methods (Ezequiel et al., 2017). Overall, the study concludes that patients with type 2 diabetes perceive dietary intake as an essential part of their management and treatment but not as valuable as pharmacological therapy (Ezequiel et al., 2017).

### **Assumptions**

The authors make assumptions based on a suggestion that a significant portion of patients with type 2 diabetes exhibit poor adherence to treatment and poor management of the disease

(Ezequiel et al., 2017). Based on the research article and the authors' purpose, an assumption that patients with type 2 diabetes value their medication therapy more than dietary nutritional therapy is evident (Ezequiel et al., 2017). Future self-management standards of type 2 diabetes should focus on developing specific strategies for patient education to improve adherence (Ezequiel et al., 2017).

### **Deficit/Conclusion**

The authors' reasoning is acceptable because of the first-hand experience others have had with type 2 diabetic patients' poor adherence to their health. The implications of this article include adequate management and care for diabetic patients. Patients should be empowered to improve their self-care and consider nutritional therapy as valuable as other treatments (Ezequiel et al., 2017). The authors address a need for future research to address ways that educational, psychosocial, cultural, and economic characteristics affect the compliance of nutritional recommendations (Ezequiel et al., 2017).

### **Supported self-management for people with type 2 diabetes: A meta-review of quantitative systematic reviews**

Due to the rise of diabetic patients nationwide and the effects of the disease on the body, it is more important now than ever to address the self-management of patients with diabetes. This research study focuses on reviewing supported self-management for patients with type 2 diabetes (Captieux et al., 2018). The self-management support of any chronic disease aims to give patients the confidence to actively manage their disease in partnership with their healthcare team

(Captieux et al., 2018). Using a meta-review analysis, the authors analyze the systemic reviews to determine the effectiveness of supported self-management (Captieux et al., 2018).

### **Key Points**

Using a meta-review analysis, the authors analyze the systemic reviews to determine the effectiveness of supported self-management (Captieux et al., 2018). The meta-review can inform policymakers and healthcare managers regarding self-management support strategies for patients who have type 2 diabetes and which interventions work best, and for whom (Captieux et al., 2018). From January 1993 to October 2016, eight databases searched for systemic reviews of randomized controls (Captieux et al., 2018). The 41 systemic reviews incorporated data from 459 unique reviews of randomized controls in several diverse ethnic communities across 33 countries (Captieux et al., 2018). Apart from one outlier, most reviews found an HbA1c improvement of up to 0.6% at six months post-intervention (Captieux et al., 2018). The secondary outcomes included body mass index, lipid profiles, blood pressure, and quality of life scoring (Captieux et al., 2018).

### **Assumptions**

The authors assume based on the actions resulting from supported self-management of type 2 diabetes (Captieux et al., 2018). The purpose of the study is to review the effectiveness of supported self-management, thus making an assumption that the patient will act based on the support alone (Captieux et al., 2018).

### **Deficit/Conclusion**

The authors' reasoning is acceptable because of the significance of the self-management of type 2 diabetes. The implications of this research article include the need for the self-management of chronic diseases and how the support of healthcare providers can impact the management. As stated previously, the lack of self-management of diabetes can result in damage to the heart, blood vessels, bladder, eyes, nervous system, and mental health (Nazario, 2020). The authors' state that their findings can help to inform researchers, policymakers, and healthcare professionals re-evaluating the provision of self-management support in routine care (Captieux et al., 2018).

### **Are home visits an effective method for diabetes management? A quantitative systemic review and meta-analysis**

Diabetes is a chronic disease with several etiologies relating to environmental and genetic factors (Han et al., 2017). Worldwide, higher rates of type 2 diabetic patients have resulted from an increase in life expectancy, a sedentary lifestyle, and a poor diet (Han et al., 2017). New interventions to aid in controlling diabetes are needed now more than ever due to the sudden increase of this chronic disease (Han et al., 2017). Because of this knowledge, this research study aims to carry out a quantitative systemic review and meta-analysis to evaluate the effectiveness of home visit interventions among diabetic patients (Han et al., 2017).

#### **Key Points**

This study carried out a search on various electronic databases, including PubMed and Web of Science, for randomized controlled trials that evaluated diabetes and home visit

programs (Han et al., 2017). The terms searched in this research include ‘diabetes mellitus,’ ‘hyperglycemia,’ ‘high blood sugar,’ ‘high blood glucose,’ ‘house call,’ and ‘home visit’ (Han et al., 2017). Two study authors worked independently to extract data from the included studies using standardized electronic forms (Han et al., 2017). The results showed a more significant reduction in glycated hemoglobin concentrations, systolic blood pressure, and diastolic blood pressure (Han et al., 2017).

### **Assumptions**

As mentioned in a previous research article, the authors of this study assume that patients who receive home visits will act on their disease management because of home visits alone (Han et al., 2017). Although home visits for type 2 diabetes aids in self-management of the chronic disease, the patient ultimately must find a sense of control and independence to do so.

### **Deficit/Conclusion**

The authors’ line of reasoning is acceptable because of the research study results. Compared to usual primary care, the home visit group of this study yielded a reduction in blood pressure and glycated hemoglobin concentrations (Han et al., 2017). The quantitative data leads the researchers to conclude that home visits improve the quality of life, high-density lipoprotein, low-density lipoprotein, total triglycerides, and self-management (Han et al., 2017). The implications of this research include adequate care and management of chronic diseases (Han et al., 2017).

### **Conclusion**

In conclusion, diabetes is a life-changing disease that often results in significant impacts. Patients living with diabetes need to be adequately educated with skills and knowledge to maintain good health while being monitored and supported by healthcare providers. Studies can use a literature review to utilize research and understanding to conduct their investigations. After analyzing the three research articles used previously, researchers conclude that diabetic patients can cope and achieve a better life living with their disease with adequate management and care from nutritional therapy and supported self-management. The healthcare system and providers can benefit from this research by utilizing and promoting these interventions for diabetic patients. With proven results in aiding a patient's diabetic health, the nursing practice can positively impact patient outcomes. These interventions can also lead to quality improvement to improve the quality and safety of healthcare delivery.

## References

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