Managing Type 2 Diabetes: Prevention, Treatment, and Community Impact

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Type 2 diabetes affects over 38 million Americans, with 90%-95% having type 2 (Centers for Disease Control and Prevention [CDC], 2023) This chronic condition, where the body struggles to use or produce insulin properly, leads to chronically elevated blood glucose levels that damage blood vessels and organs (Harding et al.,2022) It impacts both individual health and healthcare systems. Various factors influence its development, including metabolic, behavioral, and environmental elements. (Schub, 2024). The condition causes serious systemic complications including heart disease, stroke, kidney failure, and vision loss. Effective management of the disease requires a comprehensive approach that integrates medical care, community support, and education to improve patient outcomes and reduce health disparities across communities.

Overview of the Problem

Low-income communities experience higher rates of diabetes and experience greater complications compared to those with higher incomes. (Hill-Briggs et al.,2021). Studies also show neighborhoods with better access to healthy food options have lower diabetes rates, while those in urban areas dominated by fast-food restaurants show higher disease prevalence.(Hill-Briggs et al.,2021) According to the American Diabetes Association [ADA], On average the annual medical expenditure for someone with diabetes is 2.6 times higher compared to those without diabetes, with approximately $12,022 directly connected to diabetes (Parker et al.,2024)

Another issue that arises in the realm of type 2 diabetes is the complex method of management. Medication is a widespread challenge. In high-income countries like the United States and Australia, 14% to 45% of patients do not follow chronic therapy recommendations. (Religioni et al., 2025) To have successful management of Type 2 diabetes a multitude of

interventions are needed, the major ones being lifestyle modifications surrounding diet and exercise, recurrent appointments, and multi-pharmacological treatments. In addition, the prevalence of Type 2 Diabetes places a large strain on the healthcare system. Providers must allocate major resources to manage the growing needs. The estimated cost of diagnosing diabetes in the U.S. in 2022 was $412.9 billion. (Parker et al.,2024) In 2020 alone, there were approximately 7.8 million hospitalizations with diabetes as a listed diagnosis. (Patel, 2025)

Significance of Topic

The complications of diabetes are vast and severe. Patients are faced with heart disease, stroke, and vision loss. (Schub, 2024) The disease accounts for 40% of end-stage renal disease cases. (National Kidney Foundation, 2025) The number of patients with diabetic retinopathy is expected to reach approximately 16 million by 2050. (Shukla & Tripathy). With serious complications, you'll need a complex care plan to maintain patients' health. Typically, nurses are more likely required to engage in more patient care with a patient with diabetes. (Lam & Xu, 2025) In some community settings, managing diabetes has become an increasing component of district nursing workloads. The growing prevalence, especially in the older population, brings in difficult challenges. (Martin et al., 2024). But with all these challenges, Type 2 diabetes can be prevented. It can even be reversed if interventions are done early.

Prevention

Important prevention and management strategies for Type 2 diabetes focus on some key areas: regular physical activity to enhance insulin sensitivity, weight management combined with smoking cessation to lower diabetes risk, and moderation of carbohydrate and fat intake. (American Diabetes Association Professional Practice Committee, 2025)Losing just 5–7% of body weight and exercising 150 minutes weekly can reduce the risk of developing

Type 2 diabetes by 34–58% (Harding et al., 2022). For screening purposes, healthcare providers recommend risk assessments for overweight adults aged 35–70. (Khera et al., 2021) Early HbA1c monitoring is also recommended as well, especially for those who are at high risk of prediabetes (A1C ≥5.7%) (Harding et al., 2022)

Treatment

As for Treatment, the same goes. Maintaining a balanced diet and achieving weight loss has been shown to improve glycemic control and reduce the risk of severe complications. It can reduce liver fat significantly and help improve insulin resistance and promote glucose uptake in the body. (Shulman,2024) Alongside lifestyle changes, medication management is important for glycemic control. Adherence to prescribed medications including oral hypoglycemic agents, which improve mechanisms of insulin and glucose production and use. The most prescribed oral agent is metformin, highly recommended to be given initially.(Schub, 2024). Another drug of choice is the non-insulin injectables, a popular one being Glucagon-like peptide 1 (GLP-1), which stimulates the release of insulin, decreasing glucagon secretion and delaying gastric emptying (Schub, 2024). GLP-1s are typically prescribed for those who are at higher risk of becoming insulin-dependent. Insulin can also be used to treat acute symptoms of hyperglycemia, but dependent use shows signs of advanced progression (Schub, 2024). Follow-up appointments and regular monitoring are especially important, so those diagnosed with type 2 diabetes don’t become insulin dependent. They can help with early detection of complications and continue reinforcements. Tools like continuous glucose monitors (CGMs) provide real-time data on blood glucose. Making it easier for patients to keep track of their blood sugar and empowering them to make more informed decisions alongside their primary care provider

Teaching

Diabetes education centers on two vital areas: understanding Type 2 Diabetes fundamentals (including risk factors, prevention, and management) and developing knowledge of community interventions and resources. The program employs diverse teaching strategies, including teach-back methods and interactive games, supported by questionnaires, visual aids, and informative pamphlets to enhance learning retention.

Conclusion

Type 2 diabetes presents significant modern healthcare challenges. This analysis has explored the comprehensive management approach needed, integrating lifestyle changes, medication adherence, and continuous monitoring. Research demonstrates the effectiveness of community-based interventions and culturally sensitive education in reducing health disparities, while early intervention and prevention strategies consistently improve outcomes and reduce costs.

This research strengthens evidence-based nursing practice through enhanced patient education, robust community health initiatives, and improved screening programs. The findings emphasize the importance of addressing healthcare disparities in diabetes care while highlighting prevention and early intervention benefits. Ultimately, this work establishes a practical framework for reducing care inequities in diabetes management.

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