Diabetes Management: Literature Review

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Diabetes is an incurable disease, but equipping patients with the necessary knowledge and skillset about good management can increase their quality of life and improve outcomes. Diabetes affects over 29 million people just within the United States and is the leading cause of death from disease (Hinkle & Cheever, 2018). Poor management of diabetes can lead to problems involving the heart, eyes, nerves, kidneys, and blood vessels (Hinkle & Cheever, 2018). Healthcare workers must take the time to educate patients on the disease process fully, how diabetes negatively affects the body, the risk factors clients possess, and how to manage this disease properly.

Diabetes self-management education training for community health center nurses in Indonesia: a best practice implementation project

Education is the best tool for healthcare workers to use when interacting with patients with diabetes. This article focuses on improving nursing skills and confidence in delivering this education and self-management strategies (Sugiharto et al., 2017). Participants completed baseline audits, and of the 12 evidence-based audit criteria, eight showed zero compliance, and the other four represented poor compliance (Sugiharto et al., 2017). At the end of the study, all 12 criteria attained full compliance, meaning the diabetes training program successfully increased nursing skills, confidence, and compliance (Sugiharto et al., 2017).

Key Points

Nurses in Indonesia wanted to develop an education program about diabetes using an evidence-based practice that hospitals could implement across the country (Sugiharto et al., 2017). The team consisted of diabetes educator nurses, registered nurses, and a medical doctor (Sugiharto et al., 2017). Audit criteria created for healthcare workers ranged from patients receiving education regarding physical activity, nutrition, and self-monitoring to follow-up plans for ongoing support (Sugiharto et al., 2017). Baseline audits revealed that many nurses did not utilize ongoing education and often lacked expertise and knowledge regarding diabetes self-management (Sugiharto et al., 2017).

Assumptions

Indonesia currently ranks seventh in the most prevalence of diabetes, many of the cases being type two (Sugiharto et al., 2017). The authors assumed that if healthcare workers are deficient in knowledge about diabetes self-management, then patients would be as well. Many patients with diabetes lack the knowledge they need to be successful with disease management, which leads to complications (Sugiharto et al., 2017). Better standards of care and education should be implemented specifically for diabetes, not only for patients but also for healthcare workers (Sugiharto et al., 2017).

Deficit/Conclusion

I accept the authors line of reasoning because at the end of the study, all participants reached 100% compliance with the diabetes self-management plan. The implications of this article include better care and disease management for both nurses and patients. If nurses fail to accept better educational programs surrounding diabetes, morbidity and mortality rates will continue to rise.

Usability of a Disease Management Mobile Application as Perceived by Patients With Diabetes

As healthcare transitions and evolves within upcoming decades, patients should always have easy access to information regarding their health and wellness. Designing an app to help patients properly manage their diabetes is a great way to keep patients interacted and informed outside of the doctor's office. In this study, 136 participants were chosen and asked to install the app "DIABETEYAR" for two weeks, and at the end, fill a questionnaire out about their experience (Janatkhah et al., 2019). There was an 89% response rate, with straightforward learning and ease of use being the top-scoring domains (Janatkhah et al., 2019). The lowest scoring domains included reliability and interaction quality (Janatkhah et al., 2019). However, overall the patients found that the app was helpful in disease management (Janatkhah et al., 2019).

Key Points

A qualified software engineer for Androids created DIABETEYAR (Janatkhah et al., 2019). Five critical features centered around assisting patients with self-care activities: blood glucose notes, physician recommendations, diet recommendations, sports, activities, and cameras (Janatkhah et al., 2019). The information provided within each tab ranges from insulin injection instructions to snapping photos of diabetic complications they are experiencing (Janatkhah et al., 2019). After the study, participants with lower education, urban residents, and retirees were more satisfied with the application (Janatkhah et al., 2019).

Assumptions

The authors understood that the prevalence of diabetes has skyrocketed in recent decades and that education is our best tool to use towards preventative healthcare and disease management (Janatkhah et al., 2019). Technology has changed how healthcare workers practice medicine drastically, and this type of technology could be revolutionary to health management practices. It is vital to evolve and change how medicine is practiced and received constantly. Using evidence-based practice to implement new and updated protocols throughout hospitals will increase patient outcomes.

Deficit/Conclusion

There were limitations on the study, such as software platform and determining the actual amount of time patients spent using the app (Janatkhah et al., 2019). However, I agree with the author's line of reasoning and believe the implications of creating this software will be better adherence to treatment plans. Healthcare professionals should work hand in hand with software developers to construct these applications (Janatkhah et al., 2019). If nursing fails to accept these changes in technology, it will create a more significant gap between healthcare workers and their patients and decrease adherence to preventative healthcare.

RN Diabetes Virtual Case Management: A New Model for Providing Chronic Care Management

Changes in the traditional delivery of care are coming, and these changes can provide better outcomes for patients. The nurses that completed this research came up with a new system of delivery: protocol-based insulin titration, patient education, and nurse-delivered care solely

within a virtual environment (Brown et al., 2016). The goal was to decrease patients' A1C levels and provide individualized nursing for self-management (Brown et al., 2016). Patients selected had a mean A1C of 9%, the average age was 66, and the mean duration of having diabetes was 11 years (Brown et al., 2016).

Key Points

The nursing team created comprised of nurse practitioners and RNs (Brown et al., 2016). Their reasoning behind creating this protocol was because patients with A1Cs higher than 9% are at greater risk for complications; hence a systemic approach to tackle this problem was the best fitting (Brown et al., 2016). Patients were teamed with a nurse practitioner to focus on A1C target goals, then were referred to an RN chronic disease management program. After the study, the mean A1C dropped from 9.6% to 7.7%, which is significant (Brown et al., 2016).

Assumptions

Glycemic control is one of the most vital components of diabetes self-management and can determine how extremely diabetes will affect a patients' body (Brown et al., 2016). Titrating insulin provides the nurses with more accuracy in adjustments when administering doses and more insight on how much insulin a patient needs to maintain glycemic control. The nurses in this study recognized that there needs to be a change in care delivery regarding diabetes and aimed to improve coordination of care (Brown et al., 2016). Achieving this through virtual interaction was the best way to carry out these protocols (Brown et al., 2016).

Deficit/Conclusion

The study results included zero admissions to the emergency room related to hypoglycemia, and the nurses demonstrated safety plus efficiency (Brown et al., 2016). Glycemic control is a significant part of self-care activities within diabetic patients. Educating patients on proper ways to lower and keep their A1C within a target range is vital to stopping premature complications from diabetes. I agree with the author's line of reasoning and agree that the implications of changing the way services are delivered will offer better comprehensive care to patients. The consequences of not accepting these implications include continued poor glycemic control, which will lead to the destruction of other organs within the body.

Conclusion

The annual cost of diabetes is around 327 billion dollars per year in America, and over 34 million Americans have diabetes (American Diabetes Association, 2018). With this prevalence, equipping healthcare workers and patients with the necessary knowledge and information about good disease management is crucial. All nurses will encounter a diabetic patient at some point in their practice, so increasing education funding for hospitals will improve patient outcomes and help nurses' care. Currently, diabetes is ranked 7th in leading causes of death in the United States; proper protocol regarding chronic disease management will decrease these numbers: nurses should use evidence-based practice to achieve this (American Diabetes Association, 2018). Healthcare as a whole needs to realize the significance of undertreated diabetes and the devastating effects it has on patients. If healthcare professionals come together to tackle this problem, it will result in decreased amounts of comorbidities related to diabetes, improved quality of life, and overall healthier patients.

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