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Staff Education for Nurses on Diabetic Management

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Walden University

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the review committee have been made.

Review Committee

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Walden University
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Executive Summary: Staff Education Project
Staff Education for Nurses on Diabetic Management

by
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Executive Summary Submitted in Partial Fulfillment
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Summary

This Doctor of Nursing Practice project focused on addressing the insufficient management of diabetes within a primary care environment through an initiative aimed at educating staff. Internal data indicated a considerable gap between evidence and practice, with merely 40% of patients undergoing guideline-concordant HbA1c testing, while nursing personnel expressed low confidence in their ability to provide diabetes self-management education (DSME).

The project executed an evidence-based educational intervention for nursing staff over a period of eight weeks. Employing a pre-/post-intervention design, outcomes were assessed through a knowledge test and a self-efficacy survey. The results revealed a statistically significant enhancement in knowledge scores ($p < .01$) and a notable improvement in the self-reported confidence of nurses in delivering DSME.

The primary deliverable consists of a standardized education package for diabetes management. Essential recommendations include the integration of this module into annual competencies and the establishment of quarterly HbA1c audit cycles. By empowering nurses to become effective educators, this project not only enhances nursing practice but also has the potential to improve patient outcomes and foster positive social change by promoting equitable, evidence-based care.

Background

The clinic's electronic health record (EHR) analytics revealed low rates of required HbA1c monitoring and a deficiency of formal DSME reporting, indicating the practice gap. The high prevalence of diabetes-related complications in the patient population is a result of this disparity.

There is substantial evidence that nurse-led education improves diabetes outcomes. The vital significance of DSME is emphasized in the Standards of Medical Care in Diabetes (ADA, 2023). Research indicates that nurses with higher levels of education are better at encouraging patients and enhancing glycemic control (Johnson & Smith, 2022). This proof is quite strong because it comes from reputable clinical trials and top professional associations. The Iowa model of evidence-based practice served as the framework for this project, directing the steps from problem identification to implementation and assessment.

By seeking to improve the nursing staff's capacity to act as efficient educators and care coordinators for patients with diabetes, the project question and purpose directly address this gap.

Staff Education Project Development

Participants and methods: Twenty-five registered nurses and 10 nursing assistants participated. A 60-minute interactive session that was presented during two different staff meetings made up the educational intervention. The topics discussed included (a) the biology and complications of diabetes, (b) how to interpret HbA1c and other important metrics, (c) how to effectively communicate with patients, and (d) community resources that are available. All participants received a "Diabetes Management Pocket Guide" that was created.

Evidence gathering and analysis: Two instruments were used to gather data: (a) a 10-item self-efficacy survey and (b) a 15-question knowledge exam based on ADA recommendations. Both were delivered through an online survey platform. One week prior to the instruction, preintervention data were gathered, and later, postintervention data were collected. Statistical software was used to compare pre and post scores on deidentified data.

Evaluation procedure: A 25% or higher rise in mean knowledge test scores and a 30% improvement in mean self-efficacy survey scores were the two main goals used to gauge the project's effectiveness.

Results

The outcomes following implementation were favorable. There was a statistically significant increase in the mean knowledge score from 68% (pre) to 92% (post), $t(24) = 6.85, p < .001$. While all items on the self-efficacy assessment improved by an average of 35%, the biggest improvements were in "confidence discussing medication adherence" and "ability to teach blood glucose monitoring."

One effect on the company is a more educated nursing staff, which should raise the standard of diabetes care measures. There was an encouraging 15% rise in scheduled HbA1c tests, according to early EHR data from the 8-week period.

The brief 8-week evaluation period was a major drawback because it is not long enough to evaluate long-term memory retention or its ongoing influence on patient outcomes, such as HbA1c levels. Another drawback of the efficacy data is that they were self-reported.

Given that diabetes is a widespread public health concern, the significance extends well beyond the local area. The created instructional model can easily be modified for use in community health centers, hospitals, and other primary care clinics, potentially leading to better care on a larger scale. Table 1 summarizes the pre- and postintervention knowledge scores by domain.

Table 1*Pre- and Postintervention Diabetes Knowledge Scores (N = 25)*

Knowledge domain	Pretest mean score (%)	Posttest mean score (%)
Pathophysiology & complications	75	95
HbA1c & monitoring guidelines	55	90
Patient education strategies	70	92
Overall	68	92

Note. Scores reflect the percentage of correct answers on a 15-item test.

Conclusions

In summary, the organization benefited from the effective improvement of nursing staff members' understanding and self-assurance in diabetes management, which laid the groundwork for better patient care.

Additional suggestions are as follows:

- Conduct a follow-up knowledge evaluation in a few weeks to gauge retention.
- To standardize instruction, create a patient-facing educational handout.
- Establish a formal procedure for nurses to plan follow-up appointments with the express purpose of educating patients about diabetes.

There are obvious ramifications for nursing practice: Funding staff education is a potent way to put research into practice. By empowering patients and easing the burden of diabetes through proactive, nurse-driven care, this project advances health equity and promotes positive social ch

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