

Problem & PURPOSE

- The problem is an increase in complexity of diabetes care.
- Lack of knowledge and/or confidence in caring for these patients

PURPOSE: The purpose of this project was to implement education that increases knowledge and confidence for bedside nurses taking care of patients with diabetes.

Available Knowledge & Rationale

- Optimal Patient Education
 - Patient education is a critical aspect of managing diabetes in the acute care setting.
 - The diabetic community has now accepted the idea regarding the importance of diabetes education for diabetes management (Siminerio et al.,2025)
- Complications of Diabetes
 - Another area of focus includes the prevention of complications resulting from poor diabetes management.
 - Elek et al. (2025) analyzes how healthcare variables influence the occurrence and severity of diabetes complications.
- Inpatient Nurse Confidence
 - While effective diabetes education and knowledge regarding complications is vital, improving nurse confidence in managing diabetes is equally important for optimal patient care.
 - providing education for health care staff regarding diabetes management has been effective on inpatient units (Piya et al., 2022).
- The Iowa Model is an evidence-based practice model used to improve healthcare (Cullen et al., 2023).
- This project was guided by the model to offer education to healthcare staff to increase knowledge and confidence in managing diabetes.

Methods

- Context
 - The setting was a Midwestern, regional hospital
 - The project was implemented in a 13 bed Intensive Care Unit
 - The targeted population was registered nurses
- Intervention
 - Email recruitment with survey and educational PowerPoint attached was sent to all registered nurses
 - Educational PowerPoint – evidence-based information that included topics such as basic diabetes pathophysiology, necessary laboratory testing, medication management, and common complications associated with diabetes.

Methods (Cont'd)

- Study of Intervention
 - All participants were asked to complete a pre- and post-survey using Microsoft Forms.
 - Both the pre- and the post-surveys consisted of the same 11 questions.
 - Data was collected and transferred into an Excel spreadsheet for analysis.
- Measure
 - A pre- and post-survey were utilized to evaluate knowledge and confidence.
 - The survey used a four-point Likert scale: strongly disagree, disagree, agree, and strongly agree.
 - Questions 2-6 were knowledge-based, and the remaining questions were confidence-based.
 - Question 1 was an anonymous identifier.

Data Analysis

- Results were inputted and analyzed in Microsoft Excel
- Descriptive statistics were used for analysis
- Paired sample t-tests were used to analyze pre and post survey results
- The total mean was calculated for knowledge and confidence separately

Results

- Out of 35 potential participants only five registered nurses participated in the project
- Knowledge:
 - Knowledge scores increased from pre-survey ($M = 15.67$, $SD = 1.03$) to post survey ($M = 18.3$, $SD = 1.97$)
- Confidence:
 - Confidence scores increased from pre-survey ($M = 15.5$, $SD = 3.02$) to post-survey ($M = 18.5$, $SD = 2.07$)
- Paired sample t-test results:
 - Knowledge: $t(5) = 4.03$, $p = .01$
 - Confidence: $t(5) = 2.42$, $p = .05$

Discussion

- Statistically significant – t-tests indicated a meaningful difference in both categories
- Strengths – targeted education, easy replication, known need for diabetes education
- Limitations – lack of participation, better advertisement, timing

Conclusions

This project supports the integration of ongoing diabetes education for healthcare workers as a strategy to enhance clinical competence and optimize knowledge surrounding diabetes.

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References

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