

Executive Summary: Diabetes Self-Management in the Older Adult Population

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Main Points

- Participants endorsed increased knowledge of diabetes basics and skills for self-management.
- Self-reported increased ability to advocate for diabetes-related care with health care providers.
- Knowledge of diabetes-related topics increased from 55.4% to 88.51% on average.

Background and Purpose

Approximately 30 million people in the United States have a diagnosis of diabetes (Office of Disease Prevention and Health Promotion, n.d.). Health care costs for individuals with diabetes are 2.3 times higher than the national average (Powers et al, 2020). These increased costs often stem from inadequate diabetes management, which often results in complications such as vision loss, loss of limb, damage to organs such as the kidneys, and loss of life. Older adults (age 65 and better) are at increased risk of developing these complications due to comorbidities such as hyperlipidemia, hypertension, and obesity (Chen et al., 2021).

One way to mitigate this increased risk of health complications related to diabetes is through self-management education. This education has been shown to reduce health-related risks and improve adherence to care and patient outcomes (Office of Disease Prevention and Health Promotion, n.d.). Unfortunately, only 47.8 % of individuals with diabetes aged 18 and older receive such education. This project aimed to increase access to diabetes education through group-based weekly education sessions to improve patients' knowledge of diabetes and provide

them with the skills needed to manage their disease in collaboration with their health care providers.

Methodology

Using the plan-do-study-act model, implementation occurred over 12 weeks at a community-based senior center in a transitioning rural area of central North Carolina. The project team consisted of the DNP student facilitator and senior service liaison, who met initially to discuss project design and goals, and biweekly during implementation for ongoing evaluation. Informational sessions and flyers were provided at the center. Information was gathered from prospective participants regarding topics of interest to provide educational opportunities to meet their specific needs.

Weekly sessions were conducted in a small group setting, focusing on topics such as diabetes basics, diabetes and heart health, healthy eating, and diabetic foot care. Seven participants with a diagnosis of diabetes, prediabetes, and/or being a support person of an individual attended the weekly sessions. Participants were given surveys (using Likert scale questions) to assess their knowledge of lesson topics before implementation and post-implementation. Opportunities to demonstrate knowledge growth were provided through teaching the material back to their peer group and through bingo games. In addition to the weekly lessons, three opportunities were made available for the DNP student facilitator to provide diabetes education in a health fair setting for center participants and their families.

Results

Overall, the average pre-implementation survey score was 55.4%. This increased to 88.51% post-implementation, which showed an improvement in participants' understanding of

diabetes (see Figure 1). They endorsed increased knowledge of diabetes related topics and increased ability to self-advocate while collaborating with their health care providers.

Figure 1 Participant survey results pre- and post-implementation of self-management education



Strengths

- Improved participant knowledge of diabetes self-management strategies
- Weekly lessons provided foundational knowledge that participants can continue to build upon
- Relationship building among participants with similar life experiences of living with diabetes.

Limitations

- Participant participation declined over time due to varying factors (illness, injury, and/or lack of interest)

- Lack of quantitative data: the initial intent was to gather data related to improvement in fasting blood glucose levels and/or HgBA1c levels. This information was unable to be gathered as participants were not routinely checking their blood glucose levels at home and did not have lab data for HgBA1c available during the implementation period.

Implications

Diabetes self-management education provided in a community-based setting offers opportunities for improved access to an evidence-based intervention that has been shown to reduce diabetes-related complications. Through their increased knowledge, participants of this project are better equipped with the necessary skills to perform the daily tasks of their diabetes management. This enables them to maintain better control over their health and reduce the risk of negative diabetes-related health outcomes. Participants also verbalized feeling empowered to advocate for their health-related needs with their health care providers through their increased understanding of their disease process.

Conclusion

The implementation of this project increased participants' ability to effectively manage their diabetes. An increase in knowledge and skills was evidenced by increased post education scores and positive feedback provided by participants. Future implementation opportunities should continue to be provided on a biannual or annual basis to ensure participants remain up to date on the latest trends related to diabetes management and care.

References

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