

Behavioral Effects of Diabetes Self-Management Education on Adults with Type 2 Diabetes

By: Kendra Meisner-Kelley

Carroll College, Department of Nursing



Question
In patients with type 2 diabetes, how does diabetes self-management education [DSME] compared to no DSME affect diabetes self-care behaviors?



Background

- Estimated 37.3 million Americans living with diabetes (CDC, 2022).
- People with diabetes have medical costs 2.3 times higher than those without diabetes (CDC, 2022).
- Diabetes increases health risks of cardiovascular disease, kidney and renal disease, and vision loss (CDC, 2021).
- Less than 7% of newly diagnosed adult type 2 diabetes patients receive DSME (Funnell & Piatt, 2017).
- Adults with type 2 diabetes are responsible for providing their day-to-day care and rely on the medical community to guide them through the illness (Funnell & Piatt, 2017).
- Increasing education and building a broader support system improves quality of life and patient outcomes.

Article	Description	Findings
A Resilience Intervention for Adults with Type 2 Diabetes: Proof-of-Concept in Community Health Centers by Dubois et al., 2020.	Level III quasi-experimental design examined the effects of Resilience-Based Diabetes Self-Management Education before and after educating patients in type-2 diabetes self-management behaviors and resilience training.	Researchers found that there was a significant increase in the stress adaptations and coping abilities of the participants. There was a significant increase in self-reported diabetes management behaviors and an increase in the number of measured pedometer steps per day. A1C improved over the course of the study and improved mental health was also reported.
Structured Diabetes Education Program for Improving Self-care Behavior in Primary Care Setting of Puducherry: Evidence from a Randomized Controlled Trial by Gehlawat et al., 2019.	Level II randomized control trial design examined the effect of diabetes self-management education on improving patient outcomes through self-care behavior changes.	Researchers found significant improvement in footcare, dietary, and physical activity behaviors after intervention. No participants quit smoking in the intervention group, although there was a slight decrease in the volume of cigarettes smoked. The study noted dietary improvements. Participants did not increase fruit and vegetable consumption.
The Effect of Family Diabetes Self-Management Education on Self-Care Behaviors of Marshallese Adults with Type 2 Diabetes by Felix et al., 2019.	Level II randomized control trial examined the difference in self-care behaviors after receiving Family focused DSME and standard DSME in Pacific Islanders.	Researchers found that both groups showed a significant increase in glucose monitoring after DSME. In Family DSME participants reported a significant increase in attending annual healthcare visits. Researchers did not find any other significant changes before and after intervention.

Conclusion

DSME:

- Improves outcomes in type 2 diabetes.
- Improves understanding of diabetes self-care behaviors.
- Teaches patients self-care behaviors.
- Reduces complications.
- Improved support systems encourage compliance.
- Limits discrepancies in healthcare.



Nursing Implications

- Nurses can implement DSME to reduce complications.
- DSME programs in healthcare reduces costs and improvement in the quality of life for those living with type-2 diabetes.
- This research revealed that in patients with type 2 diabetes, diabetes self-management education, compared to no diabetes self-management education results in improved diabetes self-care behaviors.

This work is not original. This is a systematic review of published research conducted by professionals. Guidance was provided by Melissa Kukulski, professor of ACNU307: Evidence-Based Practice Research.