

Abstract

Background/Purpose: Uncontrolled T2DM in adults increases mortality and hospitalization rates. Patient knowledge and medication beliefs have an important role in medication adherence and self-care management among adults with T2DM. This project used a tailored patient education approach to improve T2DM in the underserved population.

Methods: A total of 30 participants enrolled in the project at the primary care office, which used a prospective, one-group pre-and post-test design. From November 2021 through January 2022, participants attended a one-hour, evidenced-based educational meeting in either Chinese or English and completed the Diabetes Self-Management Questionnaire and Beliefs about Medicines (BMQ) questionnaire to assess their self-care management skills and beliefs in medications, respectively. The results were analyzed before and after the intervention.

Results: It showed significant improvement in diabetes self-management (Summary Score: $p < 0.05$) in all subscales: Glucose Management, Dietary Control, Physical Activity, and Health-Care Use) There were also improvements in BMQ Summary Score and subscale: BMQ-Specific Necessity. However, medication concerns did not significantly decrease ($p < .972$).

Conclusion/Implications: A personalized patient education approach helped improve diabetes self-care management and medication adherence among underserved adults. Similar individualized approaches may have other applications in chronic disease self-management. The project can be replicated by clinicians following the same process to evaluate this and other chronic diseases in primary care settings, even during the COVID-19 pandemic.

Keywords: Type 2 Diabetes Mellitus, primary health care, medication adherence, self-care, COVID-19, vulnerable populations