The Brooklyn United to Improve Lifestyle Management in Diabetes (BUILD) Toolkit: Using Community-Based Participatory Research to Develop and Evaluate Diabetes Self-management Educational Material

Background: Uncontrolled type 2 diabetes contributes to a higher risk of COVID-19 deaths. Lifestyle management education is integral to diabetes control, however in medically underserved communities, culturally tailored material are limited. Purpose: This study applied community-based participatory research (CBPR) as an approach to developing a culturally tailored lifestyle management education toolkit. Methods: The study was undertaken by the Brooklyn United to Improve Lifestyle Management in Diabetes (BUILD), a coalition of patients, community organizations, faith leaders, and clinicians. Qualitative research was used to identify the content for the toolkit. Responses were transcribed into codes, categories and themes which informed the toolkit content. Results: Emerging themes included the need for easily accessible material, cultural relevant dietary options, and strategies for reducing stress and addressing social determinants of health. Themes were used to create the ‘BUILD Toolkit’ an interactive workbook that provides diabetes education, links to community resources, and strategies for stress reduction. The feasibility of the BUILD Toolkit was tested via telephone sessions with 25 patients with diabetes. The mean age was 65 + 10, Hemoglobin A1c was 8 + 1.2, BMI was 33 + 6.8, total cholesterol was 176 + 40, systolic and diastolic blood pressure were 139mmHg + 19.2mmHg and 77mmHg + 15.3mmHg, respectively. Participants were called every two weeks. At 3 months 23(92%) of participants remained in the study and reported positive feedback on the toolkit. Participants were referred to social resources to address food insecurity, homelessness, access to care. Conclusion: The COVID-19 pandemic highlights the urgent need for diabetes education material. The BUILD Toolkit is a culturally tailored and telephone-based method of providing lifestyle management education. Future studies will need to assess the efficacy of the BUILD Toolkit in improving diabetes control.

Additional contributors to this project:
Additional contributors:
Uchechukwu Nwokoma
Sania Tahir
Krystal Ealy
Lakia Maxwell
Marilyn Fraser
Moro Salifu