

University of Michigan

Praise Study

PROJECT OVERVIEW

Focused on addressing psychosocial aspects of diabetes behavior change in African American communities, the University of Michigan's Department of Medical Education (DME) is an academic department within the University of Michigan Medical School. Located in Ann Arbor, Michigan, the DME is nationally and internationally recognized for their work in the metro-Detroit communities. Through collaborations with other schools and centers at the University, the DME conducts multidisciplinary community-based disparities research.

The Praise Study recruited parish churches for participation. Faith-based interventions have proven effective, although difficult to initiate. The objectives were to examine the effectiveness of two novel approaches in addressing diabetes self-management support (DSMS) in church settings, DSMS with parish nurses, and DSMS with parish nurses in combination with peer leaders. For comparison, participants at parish churches received enhanced usual care. Over the course of two years, nine churches were randomly assigned to one of the aforementioned conditions and 12-15 individuals with type 2 diabetes completed 6 weeks of Diabetes Self-Management Education (DSME) followed by 6 months of support group sessions (DSMS). Subsequently, all participants transitioned into 6 months of ongoing support to measure the psychosocial and self-management maintenance effects. Primary goals of this study were to improve A1C levels and diabetes-related distress. Secondary goals were changes in weight, blood pressure, quality of life, and diabetes social support.

CONTEXT AND PARTNERS

The state of Michigan has the 15th highest prevalence for type 2 diabetes, disproportionately affecting African Americans. In Detroit, diabetes is the sixth leading cause of death. One-third of the population over the age of 50 have diabetes or prediabetes. The emotional burden that has the potential to interfere with diabetes self-management is diabetes distress. In an effort to implement effective and culturally tailored approaches to diabetes self-management, the DME collaborated with community parish nurses, peer leaders, community health workers, and lay health coaches to develop a community-based participatory approach to addressing diabetes and distress.

African American churches were selected as the community infrastructure where DSME and DSMS occurred. Seven churches were Baptist, one church was Catholic, and one was Methodist/Baptist. Parish nurses and peer leaders were recruited from participating churches; each condition experienced was assessed for sustainability by alternating intervention and maintenance conditions. By using existing resources in the community, this initiative sought to build a sustainable model for DSMS.

Partners in the Praise Study include:

- University of Michigan School of Public Health
- Michigan Center for Diabetes Translational Research (MCDTR)
- University of Michigan Institute for Clinical and Health Research
- Detroit Parish Nurse Network (DPNN)

ASSESSMENT AND PLANNING

The Praise Study builds on work done by Michigan Center for Diabetes Translational Research, Michigan CTSA Community Engagement core, and the Detroit Parish Nurse Network (DPNN) for African American churches in Detroit. These groups conducted the assessment and selection of diabetes self-management education and support as the intervention focus for the last several years. During assessment, it seemed a greater awareness of diabetes self-management was emphasized. While conducting church recruitment, the advisory board observed independent diabetes initiatives in the communities that were unrelated to this particular project.

The DPNN provided an active partnership with the University of Michigan. Bi-weekly teleconferences were held to discuss study updates. In collaboration with the Detroit Parish Nurse Network, nine churches were identified in the metro area after meeting selection criteria. Inclusion criteria for the study included the following: membership must have exceeded 100 persons; the church must have had a certified parish nurse; must consent to participation in the study; and be an African American church. Study coordinators and DPNN met with each of the churches to assess interest and obtain letters of agreement.

Over sixty members from the churches and DPNN actively participated in the selection of parish nurses and peer leaders for this initiative. Parish nurses received a curriculum composed of diabetes education, peer leader supervision, and group facilitation trainings. Parish nurses identified peer leader candidates who were trained to deliver the intervention. The peer leader curriculum was modified to focus on group facilitation and patient workbooks were updated with recent medication information.

Church members and the DPNN continued to be involved in all aspects of the research, including finalizing the intervention content and survey instruments, hiring key staff, recruitment and enrollment of participants, and disseminating research results in community and academic contexts. An advisory board consisting of church and community members, DPNN representatives, and university researchers guided implementation and support efforts.

INTERVENTION

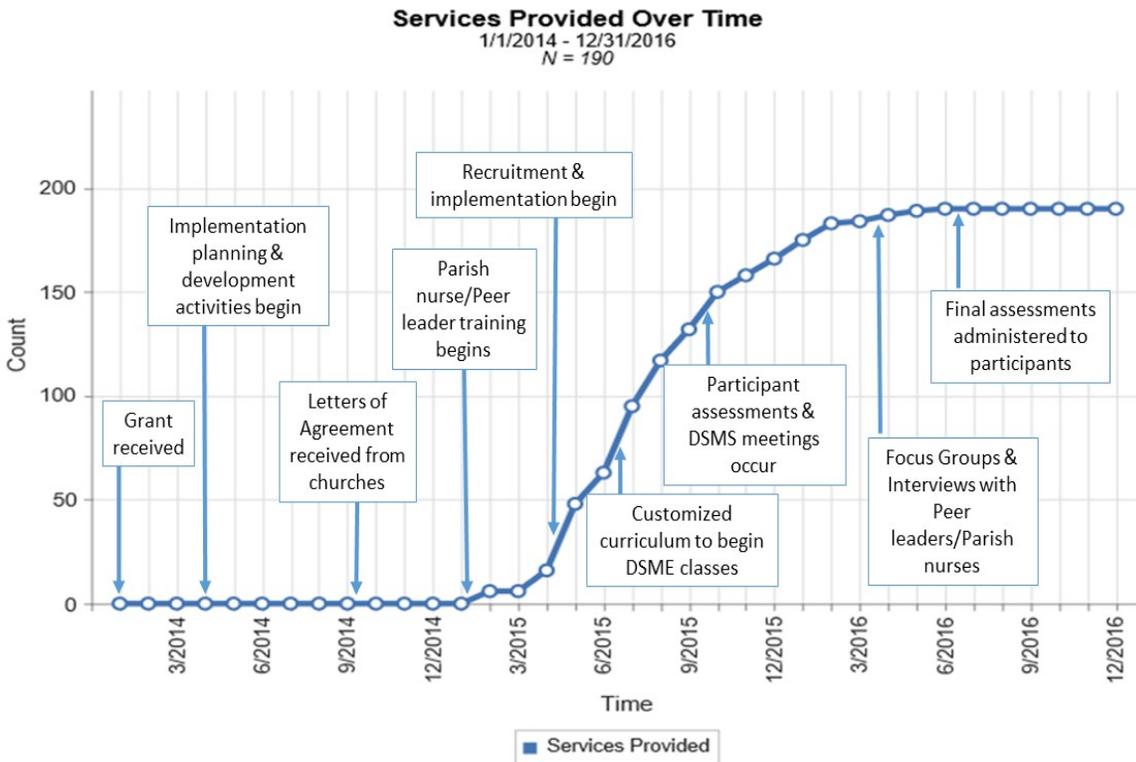
Participants were offered diabetes self-management education (DSME) and diabetes self-management support in the context of faith-based organizations. Certified diabetes educators delivered the DSME component while peer leaders with parish nurse supervision delivered the DSMS (main intervention group). Comparison churches received only the DSME curriculum. Table 1 below summarizes the components, elements, and mode of delivery for the Praise intervention.

INTERVENTION COMPONENTS	SPECIFIC ELEMENTS (what was done)	MODE OF DELIVERY (by whom and how)
Diabetes Self-Management Education	<ul style="list-style-type: none">• Assessments of knowledge and skills, program orientation• DSME 8-week classes• Reminders to attend DSME classes	<ul style="list-style-type: none">• University of Michigan staff facilitated events at churches• Customized Life with Diabetes curriculum led by staff• Peer leaders or parish nurses provided event reminders• Calendars with event dates shared with participants

Support for Managing Diabetes and Distress	<ul style="list-style-type: none"> • Empowerment-based support groups (DSMS) • Goal setting for managing diabetes 	<ul style="list-style-type: none"> • Peer leaders or parish nurses trained to lead 6-month support groups and maintain attendance • Peer leaders or parish nurses
Enhanced Access/Linkage to Care	<ul style="list-style-type: none"> • Linked patients to clinical care • Ongoing social and emotional support 	<ul style="list-style-type: none"> • Parish nurse or Peer leaders provide support elements continuously
Community Organization, Mobilization, and Advocacy	<ul style="list-style-type: none"> • American Diabetes Associate ID Day Kickoff • Recruited support group leader • Assisted in self-management Announcements during service 	<ul style="list-style-type: none"> • Project staff recruited churches to ID day diabetes • Project staff recruited peer leaders and parish nurses • Pastors and church staff made announcements

EVALUATION RESULTS AND FINDINGS

The Praise Study was implemented over a 3-year period (January 2014 – December 2016). The following graph displays the 190 services provided through the implementation of the Praise study, as part of the Diabetes and Depression initiative Bristol-Myers Squibb Foundation supported. Accomplishments included DSMS meetings, DSME courses, and the provision of other support services to participants. Patients in the study set self-management goals, and made progress towards goals by reducing HbA1c levels below 9%. Baseline assessments were completed by 95 patients, followed by 72 DSME intervention sessions across 8 churches.



DATA ON CLINICAL OUTCOMES

[Outcome data pending]

STORIES OF TRANSFORMATION

Tabernacle Participant: "I don't think you can underestimate the support group. When you look around the room and see other people and hear their challenges and you say - I been there. Maybe this is another option and maybe I will try that. For me it was real helpful, just kind of sets parameters for ya."

In July, group is planning to get together outside the church – go out for lunch, go on a trip together – so they can still discuss how their diabetes management is going

WHAT WE ARE LEARNING

Recruiting churches for participation that met study inclusion criteria posed a serious challenge to the project. The number of participating churches was much lower than hoped for, with nine churches participating. The same was true for individual participants. The goal was 135 participants, but only 95 actually participated. Findings suggest that actively working and communicating with community partners ultimately contributed to project participation and success. Project implementers found that modifying the study to include focus groups and interviews promoted more participant engagement. Focus group data provided important information about the implementation of DSME in faith-based settings. Peer leaders and adapting the curriculum to fit the context for implementation were two critical factors that affected success. Project coordinators provided capacity building and training opportunities to ensure peer leaders effectively engaged in the project and obtained improved health outcomes. Project investigators found

rapid-cycle feedback was useful for success in this study; collaboration to adjust components of the project allowed community flexibility and participation.

Average attendance in DSME was greater in peer leader support groups as opposed to parish nurse and enhanced usual care groups. Greater participant retention was observed in the parish nurse and peer leader support group compared to the enhanced usual care groups. However, participants overwhelmingly wanted Certified Diabetes Educators to provide DSME over a church member, because of the skill level.

In addition, the typical participant was not at high risk (A1c greater than 9.0). Evidence demonstrates that those with higher A1c levels benefit the most from diabetes interventions, so improvement with these participants was limited.

MOVING FORWARD AND PLANS FOR SUSTAINABILITY

Project investigators maintained an active partnership with the community partner DPNN. Henry Ford Health System also became a partner as they have an ongoing faith-based community nurse program and are actively involved in various churches in the metro-Detroit area.

For sustainability purposes, churches and participants will be integrated in the formal Henry Ford programs. (The partnership with Henry Ford programs will become more formal in future studies.) Future studies will serve higher risk patients as the target population for the intervention in an attempt to demonstrate improved health outcomes for these individuals.

PROJECT PUBLICATIONS AND MATERIALS

Hawkins, J., Watkins, D. C., Kieffer, E., Spencer, M., Piatt, G., Nicklett, E. J., ... & Palmisano, G. (2017). An Exploratory Study of the Impact of Gender on Health Behavior Among African American and Latino Men with Type 2 Diabetes. *American journal of men's health*, 11(2), 344-356.

Fitzgerald, J. T., Funnell, M. M., Anderson, R. M., Nwankwo, R., Stansfield, R. B., & Piatt, G. A. (2016). Validation of the revised brief Diabetes Knowledge Test (DKT2). *The Diabetes Educator*, 42(2), 178-187.

Tang, T. S., Funnell, M., Sinco, B., Piatt, G., Palmisano, G., Spencer, M. S., ... & Heisler, M. (2014). Comparative effectiveness of peer leaders and community health workers in diabetes self-management support: results of a randomized controlled trial. *Diabetes care*, 37(6), 1525-1534.

Tang, T. S., Nwankwo, R., Whiten, Y., & Oney, C. (2014). Outcomes of a church-based diabetes prevention program delivered by peers: a feasibility study. *The Diabetes Educator*, 40(2), 223-230.

PROJECT CONTACT INFORMATION

Gretchen Piatt, Project Director
Email: piattg@umich.edu
Phone: 734-764-2287

EVALUATION CONTACT INFORMATION

This case study was prepared by the Work Group for Community Health and Development team (Jerry Schultz, Charles E. Sepers, and Alexandria C. Darden) at the University of Kansas <http://communityhealth.ku.edu>, in collaboration with the University of Michigan, and as part of the evaluation of the BMSF's Together on Diabetes Program.

Jerry A. Schultz, Ph.D. Director, Together on Diabetes Evaluation
Work Group for Community Health and Development, University of Kansas
Email: jschultz@ku.edu
Phone: 785-864-0533

Charles E. Sepers, Together on Diabetes Evaluation Coordinator
Work Group for Community Health and Development, University of Kansas
Email: csepers@ku.edu
Phone: 785-864-0533