

Title:

Educational Intervention for Improving Self-Management in Low-Income Mexican People With Type 2 Diabetes

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Abstract Summary:

This is an ongoing project part of the PH-LEADER program 2015-2016, and recently got a Small Grant from Sigma Theta Tau International Honor Society of Nursing. The main objective is to test the feasibility of an educational intervention for improving self-management in low income Mexican people with type 2 diabetes.

Learning Activity:

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
The learner will be able to identify needs about self-management in low income Mexican people with type 2 diabetes.	Describe the epidemiological context of type 2 diabetes in Mexico. Explain typical self-management in type 2 diabetes in the region.
The learner will be able to analyze characteristics of this educational intervention and benefits for Mexican low income people with type 2 diabetes.	Explain the main topics of this educational intervention and what was the process to do that. Discuss opportunities for developing the next step.

Abstract Text:

Significance. In 2013, approximately 382 million people over the age of 20 years were diagnosed with T2DM, and it is estimated that by 2035 that number will increase to 592 million worldwide ([Guariguata et al., 2014](#)). In México, the prevalence of T2DM has increased dramatically, from 6.7% (women 6.8%; men 6.6%) in 1994, to 7.5% (women 7.8%; men 7.2%) in 2000, to 14.4% (women 13.2%; men 15.8%) in 2006 ([Barquera et al., 2013](#)). Type 2 diabetes is one of the main Public Health problems in the worldwide. For Mexico it represents a challenge and many tasks have been done but we need more in order to help people with this chronic disease living with the disease and maintain their health.

Purpose. To test the feasibility of the educational intervention (including its acceptability, and further refine intervention materials and study procedures) for improving self-management in low income Mexican people with type 2 diabetes.

Methods. Using a randomized two-group design we will test the initial efficacy of the intervention on participants with type 2 diabetes on glycemic control (HbA1c), adiposity, weight, and diabetes self-management from Time 1 (Baseline-0 months), Time 2 (Post Intensive Intervention-2 months), and Time 3 (After 3 months on their own-5 months). The primary outcome will include HbA1c from Time 1 to Time 3. The secondary outcomes will include adiposity, weight, and diabetes self-management behaviors from Time 1 to Time 2 and Time 1 to Time 3. Participants will be randomized into either the intervention (n = 25) or the control (n = 25) group. Participants in the experimental group will receive the 8 weekly classes focused on diabetes self-management behaviors in Spanish and then have 3 months on their own. The control group will receive usual care.

Institutional Review Board (IRB) approval will be obtained from the Instituto Nacional de Salud Pública and the Universidad Autonoma de Tamaulipas School of Nursing, Tampico, Tamaulipas, México. Participants will be excluded if they are found on the to have a heart murmur, congenital heart disease, family history of sudden death, difficulty walking or exercising or history of psychological problems that would prevent participation in group classes, which will be asked on the demographic data sheet. If eligible, we will make an appointment at the Community Health Center and the patient will be given an oral description of the study in Spanish, requirements of participants, and the risks and benefits of participating; and all questions will be answered. After consent, we will collect the following data in a private room in the same order: height, weight, waist circumference, triceps and subscapular skinfolds, finger stick A1C, and self-management questionnaires. Data collection will take a total of 45-60 minutes for each patient. Data analysis will include descriptive and inferential statistics in the SPSS program.

The intervention was developed according to the American Diabetes Association Clinical Practice Guidelines (American Diabetes Association, 2014; Haas et al., 2014) by Dr. Berry. Each experimental patient will receive 8 weekly classes over 2 months in Spanish. A nurse interventionist with experience teaching participants with diabetes will be trained. The modules have been tested in English in the U.S. and have been highly successful (Berry et al., in press) and have been translated into Mexican Spanish. The classes include understanding T2DM and A1C goals, exercise goals, weight goals, cholesterol and blood pressure goals, portion control, fast food, and sweetened beverages, improving diabetes self-management goals using social problem solving, improving nutrition goals using social problem solving, and improving exercise goals using social problem solving.

Results. The major potential benefit of this study is the provision of new knowledge in nursing about ways to improve outcomes for participants from México with T2DM. The participants will receive valuable information on the self-management of T2DM. This program is expected to provide them with the skills and support necessary to manage their T2DM. If the intervention is successful, this will provide an evidence-based practice rationale for nursing intervention with Spanish-speaking participants from México. The results of this study will provide data to estimate effect sizes for an R21 mechanism grant to submit to the National Institutes of Health for consideration of funding.

