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Impact evaluation of a healthy lifestyle intervention to reduce cardiovascular disease risk in health centers in San José, Costa Rica and Chiapas, Mexico.

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BACKGROUND: Previous healthy lifestyle interventions based on the Salud para Su Corazón curriculum for Latinos in the United States, and a pilot study in Guatemala, demonstrated improvements in patient knowledge, behavior, and clinical outcomes for adults with hypertension. This article describes the implementation of a healthy lifestyle group education intervention at the primary care health center level in the capital cities of Costa Rica and Chiapas, Mexico for patients with hypertension and/or type 2 diabetes and presents impact evaluation results.

**METHODS:** Six group education sessions were offered to participants at intervention health centers from November 2011 to December 2012 and participants were followed up for 8 months. The study used a prospective, longitudinal, nonequivalent pretest-posttest comparison group design, and was conducted in parallel in the two countries. Cognitive and behavioral outcome measures were knowledge, self-efficacy, stage-of-change, dietary behavior and physical activity. Clinical outcomes were: body mass index, systolic and diastolic blood pressure, and fasting blood glucose. Group by time differences were assessed using generalized estimating equation models, and a dose-response analysis was conducted for the intervention group.

**RESULTS:** The average number of group education sessions attended in Chiapas was 4 (SD: 2.2) and in Costa Rica, 1.8 (SD: 2.0). In both settings, participation in the study declined by 8-month follow-up. In Costa Rica, intervention group participants showed significant improvements in systolic and diastolic blood pressure and borderline significant improvement for fasting glucose, and significant improvement in the stages-of-change measure vs. the comparison group. In Chiapas, the intervention group showed significant improvement in the stages-of-change measure in relation to the comparison group. Significant improvements were not observed for knowledge, self-efficacy, dietary behavior or physical activity. In Chiapas only, a significant dose-response relationship was observed for systolic and diastolic blood pressure.

**CONCLUSION:** Group education interventions at health centers have the potential to improve stage-of-change activation, and may also improve clinical outcomes. In the future, it will be essential to dedicate resources to understand ways to reach a representative group of the patient population, tailor the intervention so that patients are engaged to participate, and consider the broader family and community context that influences patients' capacity to manage their condition.

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