



ORIGINAL RESEARCH

Lasting Effects of a 2-Year Diabetes Self-Management Support Intervention: Outcomes at 1-Year Follow-Up

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PEER REVIEWED

Abstract

Introduction

Diabetes-related health improvements achieved from self-management education interventions are not sustained long-term. We examined the health effects at 1 year follow-up of a 2-year, empowerment-based, diabetes self-management support intervention designed for African Americans.

Methods

We collected data from 52 African American adults with type 2 diabetes who completed the 3-year study. The intervention consisted of weekly groups led by 2 health care professionals and emphasized experiential learning, emotional coping, problem solving, goal setting, and action planning; group discussion was guided by participant-identified self-management priorities and concerns. Measurements were taken at baseline, 24 months (postintervention), and 36 months (1 year follow-up) to assess glycemic control; weight; body mass index; serum cholesterol, high-density lipoprotein cholesterol, and low-density lipoprotein cholesterol levels; systolic and diastolic blood pressure; self-care behaviors; diabetes-specific quality of life; and diabetes empowerment.

Results

Following the 2-year diabetes self-management support intervention, we found significant improvements for following a healthy diet ($P = .03$), spacing carbohydrates evenly across the day ($P = .005$), using insulin as recommended ($P = .047$), and achieving diabetes-specific quality of life ($P = .02$). At 1-year follow-up, not only did participants sustain the behavioral improvements made in the 2-year diabetes self-management support intervention, but they also demonstrated additional improvements in glycemic control ($P < .001$) and in serum cholesterol ($P < .001$) and low-density lipoprotein cholesterol levels ($P = .001$).

Conclusion

Participation in an empowerment-based diabetes self-management support intervention may have a positive and enduring effect on self-care behaviors and on metabolic and cardiovascular health.

Introduction

Although considerable evidence supports the efficacy of diabetes self-management interventions in improving clinical, behavioral, and psychosocial outcomes (1-8), a 2001 systematic review conducted by Norris and colleagues (1) concluded that improvements achieved from self-management programs were short-lived, lasting no more than 6 months postintervention. However, of the 54 studies that examined glycemic control as an end point in this review, only 33% ($n = 18$) included a follow-up assessment at 12 months or longer, which means that most studies did not evaluate long-term outcomes. Since that review was published, a small but growing number of studies have investigated the long-term effects of self-management interventions (9-15).

The need to place more emphasis on lifelong self-management efforts has been reinforced by the National Standards for Diabetes Self-Management Education (DSME), which require that patients receive ongoing diabetes self-management support (DSMS) (16). Although the importance of ongoing DSMS is formally recognized, how much or