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Social factors and barriers to self-care adherence in Hispanic men and women with diabetes

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ABSTRACT

Objective: To explore quantitatively the extent to which social support, social norms and barriers are associated with self-efficacy and self-care adherence in Hispanic patients with diabetes and the extent to which these differ for men and women.
Methods: Baseline survey data were collected from 248 low-SES, Hispanic men and women who were participants in a randomized controlled trial of a culturally targeted intervention for diabetes management. Student's *t*, Pearson correlations and multiple regression were used to analyze the data.
Results: Compared to men, women were less likely to receive support, faced more barriers, reported less self-efficacy and had lower levels of self-care adherence. Perceived support was consistently correlated with better self-efficacy in women but not men, even though men reported higher levels of support.
Conclusion: The lack of adequate support seems to be a fundamental barrier for Hispanic women with diabetes.
Practice implications: Health care providers should be sensitive to sociocultural influences in Hispanic groups that may facilitate men's self-care adherence, but could potentially hamper women's efforts. Interventions designed for Hispanics should augment women's support needs and address culture and social factors that may differentially impact the ability of men and women to manage their diabetes.

1. Introduction

Diabetes ranks as the seventh leading cause of death in the United States and is one of the leading causes of health disparities [1]. Age-adjusted national survey data indicate that among adults, 11.8% of Hispanics, 12.6% of non-Hispanic blacks, and 8.4% of Asian Americans have diagnosed diabetes, compared to 7.1% of non-Hispanic whites [1]. Of these groups, persons of Hispanic origin are the most likely to die from diabetes [2]. According to recent studies, less than half of diabetic adults in the general population meet clinical practice recommendations of A1C < 7% [3,4]. Hispanics tend to have some of the lowest rates of glycemic control, and Hispanic women have the worst rates [3]. The poor outcomes among Hispanics, especially among Hispanic women, are especially worrisome given the rapidly increasing Hispanic population, which is expected to double by 2060 [5].

Unsatisfactory glycemic control is associated with poor self-care, including diet, exercise and medication use [3,6,7]. There is evidence that higher levels of social support may enable better self-care [7]. Since the strong family ties in Hispanic groups are known to provide relatively high levels of support [8–10], it is particularly perplexing that diabetes is not better managed. One possibility is that other sociocultural factors may interfere with self-care adherence, especially for women [8,11–14].

Several qualitative studies have identified potentially relevant cultural factors in Hispanic groups [14–19]. These include the important role the family plays in diabetes self-management [16–18], concerns about giving up traditional foods in order to follow a healthy diet [14,19], and that social support and barriers differ for Hispanic men and women [14].

Focus group studies have suggested that these Hispanic sex differences may be related to cultural characteristics such as

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gender roles and the importance of family [14,18,20]. Relational cultures, which are common to many Hispanic groups, typically emphasize family responsibilities over individual needs [11,21,22]. This could make social ties and family obligations more salient than personal goals as motivation for changing behavior [8]. For Hispanic women in particular, identity is often tied to their role as mother. Personal fulfillment may come from self-denial in satisfying family needs first; they may feel it is too self-indulgent to attend to their own needs if they differ from those of the family [12,18]. It's possible that this cultural context, combined with traditional gender roles, could constrain diabetes management among Hispanic women [14].

Focus groups are invaluable for suggesting relevant sociocultural constraints; nevertheless, there can be a discrepancy between what emerges in focus groups and what is actually associated with behavior [23,24]. This makes it especially important to draw upon theory and to use both qualitative and quantitative evidence to guide interventions in culturally distinct groups. Our conceptual model (see Fig. 1) draws upon social cognitive theory to explicitly take into consideration interactions between culturally-relevant personal, behavioral and environmental factors that may be associated with self-care adherence.

Qualitative evidence suggests that many of these factors may differ between Hispanic men and women with diabetes [14,18]. Evidence from quantitative research indicates that fewer barriers, better perceived support, lifestyle factors and higher self-efficacy are associated with better diabetes self-management among Hispanics [25–27]. However, none of these studies compared associations with self-care adherence in Hispanic men and women.

The purpose of this study was to explore quantitatively the extent to which perceived support, social norms and barriers are associated with self-efficacy and self-care adherence in low-SES Hispanic men and women with diabetes. Based on our conceptual model and previous research, we hypothesized that (1) greater perceived support, social norms favoring diet and exercise and fewer barriers are associated with greater self-efficacy and better self-care adherence, and (2) sex differences in perceived support, reinforcement, barriers and self-efficacy are associated with disparate outcomes in men and women.

2. Methods

2.1. Parent study and participants

The parent study was a randomized controlled trial of a culturally targeted intervention for diabetes management conducted from July 2011 through January 2013. Participants included 248 Hispanic men and women with uncontrolled Type 2 diabetes (T2DM) who were patients in four community health centers in the Harris Health System. The Hispanic origin of the participants reflected the typical distribution in the community health centers: 80% Mexican American and 20% from Latin American countries other than Mexico.

Appointment schedules and electronic medical records were reviewed in order to identify patients likely to meet eligibility criteria. Inclusion criteria included age 18 or older with diagnosed T2DM, uncontrolled HbA1c levels (≥8%), and English- or Spanish-speaking. Exclusion criteria included non-Hispanic origin, physical or mental impairment (including dementia), presence of diabetes complications, and age greater than 70. Patients were contacted in person or by phone to further assess eligibility, inform them about the project, and invite them to participate. Because of the support of the primary care providers at all four clinics, only a small percentage (17%) of the 300 patients who were approached refused to participate. Although more men than women refused, refusals did not differ significantly on any demographic factors. The most common reason for refusing was not having enough time. After informed consent was obtained, 248 patients were randomized into the parent study, 123 to intervention and 125 to usual care.

Baseline survey data were collected from participants shortly after randomization, usually on the same day. Participants randomized to the intervention group were shown an interactive educational program for diabetes management containing culturally targeted video segments, educational modules and games. Further details about the parent study and the results of the trial are described elsewhere (forthcoming). This substudy analyzes survey data collected from all 248 participants at baseline. Participants had a mean age of 50.9 ± 8.8 years, 9.9 ± 6.6 years with diabetes; 99 (39.9%) were men, and 149 (60.1%) women.

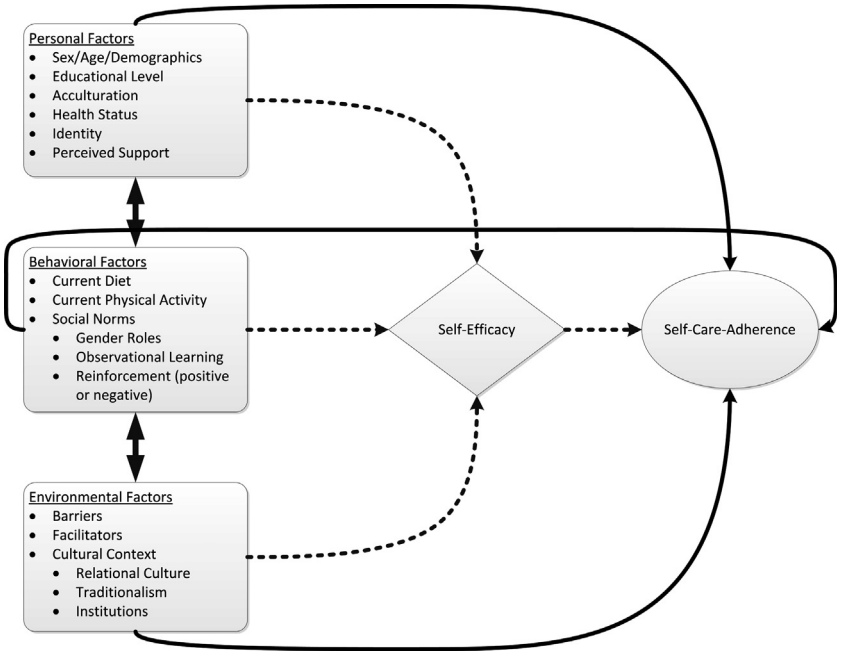

Fig. 1. Conceptual model of personal, behavioral and environmental factors that may be associated with gender differences in self-care-adherence among Hispanics with diabetes.