

WISE Women Against Diabetes
(Research in Progress)
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It is estimated that 18.2 million people, or 6.3 % of the population of the United States, have diabetes and of those, 90-95% have Type 2 diabetes. Meeting the recommended levels of physical activity has been shown to be beneficial in the management of Type 2 diabetes. Because physical activity may increase insulin sensitivity, improve glucose tolerance and glycemic levels, the need for hypoglycemic agents to treat Type 2 diabetes may be reduced. However, nearly one-third of Type 2 diabetics report no involvement in regular physical activity, while another 38% report insufficient levels of physical activity. The goals of Healthy People 2010 include increasing the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day and reducing the proportion of adults who engage in no leisure-time physical activity. Vigorous physical activity programs can be difficult to initiate for sedentary individuals, especially for middle-aged overweight women who suffer from Type 2 diabetes. These women can easily become frustrated and are likely to discontinue the high intensity activity and relapse to a sedentary lifestyle. Therefore, moderate physical activity, such as walking, is an ideal form of physical activity that can be incorporated into individuals' lifestyles. Not only is walking the most common mode of physical activity for diabetic patients, research has shown that walking improves insulin sensitivity and glucose tolerance in sedentary individuals. The United States Preventive Services Task Force urges healthcare providers to use counseling techniques to promote physical activity among patients. Although physical activity counseling is commonly given to patients with chronic illnesses, the majority of patients who receive exercise counseling are males.

Purpose: This study will test the effectiveness of a Walking Intervention and Supportive Environment (WISE) protocol designed to increase the amount of walking and frequency of self-monitoring blood glucose in Type 2 diabetic women. This intervention is guided by the Health Promotion Model and the Transtheoretical Model of Change.

Method: A quasi-experimental design will be conducted using a sample of 80 women diagnosed with Type 2 diabetes. The participants will be recruited from a diabetic clinic where they are under the supervision of a diabetologist. Participants will be randomized to intervention group or control group. The intervention group will receive the WISE program consisting of weekly telephone counseling to support physical activity and monthly mailings focusing on strategies to increasing walking and the frequency of self-monitoring of blood glucose. All participants will receive usual care and both groups will receive pedometers and glucometers.

Data Analysis: Statistical analysis (ANOVA) will be used to determine significant differences between the control and intervention group on amount of walking (measured by pedometers), frequency of self-monitoring blood glucose, HbA1c levels, and body weight.

Findings: Because this study is in progress, preliminary findings will be presented at the conference.

Implications: The knowledge obtained from this study will assist in the further development of effective healthcare interventions aimed at increasing physical activity levels and the frequency of self-monitoring blood glucose in Type 2 diabetic women.

