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The Women's Lifestyle Physical Activity Program: Social Cognitive Constructs and Adherence to Physical Activity

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Purpose: African American women are among the population groups with the lowest reported levels of leisure-time physical activity, particularly when compared to White American women. The aim of the study was to examine the relationships among social cognitive constructs (self-efficacy, outcome expectations/realizations, group social support) and change in physical activity from baseline to 48 weeks in African American women participating in a lifestyle physical activity program.

Methods: This was a secondary data analysis of a 48-week randomized controlled trial with three intervention conditions randomly assigned across six community health care sites using a cluster-randomized, Latin-square design to counterbalance the order of administering interventions over sites. Each intervention had six group meetings over the 48 weeks with one of three conditions: no calls, personal motivation calls, or automated motivational calls between meetings. The participants were 288 sedentary, midlife African American women with no major signs or symptoms of cardiovascular disease. Measures included: self-efficacy at baseline and 24 weeks, outcome expectations at baseline, outcome realizations at 24 weeks, group social support at 24 weeks, and physical activity (self-report and device-measured) at baseline and 48 weeks.

Results: In a hierarchical regression model predicting change in self-reported, moderate-vigorous physical activity, baseline physical-outcome expectations and 24-week psychological-outcome realizations were significant positive predictors ($R^2 = .11$, $F[5,250] 6.58$, $p < .001$). In a hierarchical regression model for change in device-measured steps, self-efficacy change from baseline to 24 weeks was a significant positive predictor ($R^2 = .10$, $F[3,148] 5.25$, $p = .002$). Treatment condition was not significant in either model. Social support from women who participated in the group meetings did not contribute to increased physical activity by self-reported or device-measured physical activity.

Conclusions: Participants in all three conditions of the randomized controlled intervention significantly improved adherence to physical activity at the end of the active intervention phase (24 weeks), and adherence was sustained through the end of a maintenance intervention phase (48 weeks). It may be that social support from lasting familial and friend relationships contribute to adherence more than time-limited group social support. Social cognitive constructs, including self-efficacy, outcome expectations, and outcome realizations, all influence physical activity behavior in midlife African American women and should be considered potential targets for further intervention development. Self-efficacy alone may not be a sufficient target to change physical activity behavior.

Title:

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Keywords:

African American women, Behavior change theory and Physical activity

Abstract Summary:

African American women have the lowest levels of leisure-time physical activity (LTPA), contributing to disproportionate cardiovascular disease. Understanding the relationship between social cognitive constructs and LTPA maintenance during a successful intervention to improve LTPA in African American women may provide direction for the further development of successful LTPA interventions.

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Author Summary: Meghan Garland MSN CNM has been a certified nurse-midwife since 2002. She joined Frontier Nursing University's midwifery and women's health faculty in 2009. Meghan is pursuing a Ph.D. in Nursing at Rush University in Chicago, IL. Her dissertation work aims to identify modifiable beliefs and attitudes regarding physical activity during pregnancy in communities of color with the goal of developing an intervention to increase the number of pregnant individuals achieving recommended physical activity throughout pregnancy.