Sisters in Motion: Study Shows Faith Based Interventions Can Encourage Exercise in Older African-American Women

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In a randomized controlled study based in Los Angeles, California, encouraging African-American women aged 60 or over to exercise, in conjunction with scripture reading and group prayer, led to a 78% increase in steps per week, equivalent to about three extra miles. This increase was four times greater than in the control group who were also encouraged to exercise but with no faith based interventions. The results are published today in the Journal of the American Geriatrics Society.

Older African-American women are the least physically active race-sex subgroup in the United States. Despite this disparity in rates of physical activity, few of the reported physical activity interventions for older adults report outcomes according to race and sex. Alongside this, spirituality and religion are powerful cultural influences for this group and more than 95% of older African-American adults report praying nearly every day.

“The rationale for this study is our belief that health promotion efforts for African-Americans must take advantage of existing community strengths to be sustained and be successful, such as members of the same church having a sense of communal identity,” said lead researcher Dr. O. Kenrik Duru, of the University of California, Los Angeles. “Therefore, we decided to conduct this intervention within churches, to test whether leveraging community strengths could lead to behavior change.”

The study included 62 women recruited from three churches in Los Angeles: Catholic, African Methodist Episcopal, and Seventh Day Adventist. There were 34 women in the intervention group and 28 in the control group. Each group met for 90 minutes once a week for eight weeks and then once a month for six months. In each of the eight 90 minute sessions, both groups exercised for 45 minutes, led by an instructor. The remaining 45 minutes was different between the groups; the intervention group listened to scripture readings, took part in group prayer and were encouraged to set exercise goals; the control group listened to lectures on non-related topics such as memory loss and identity theft. The following once-monthly meetings focused on maintaining increased physical activity for the intervention group and other unrelated lectures for the control group.

At the beginning of the trial all participants’ systolic blood pressure (SBP) and a one week pedometer reading were recorded. Intervention participants averaged 12,727 steps per week at baseline, compared with 13,089 steps in controls. Mean baseline SBP was 156mmHg for intervention participants and 147mmHg for controls. At six months, intervention participants had increased their weekly steps by 9,883 on average, a 78% increase, compared with an increase of 2,426 (19%) for controls; SBP decreased on average by 12.5mmHg in intervention participants and only 1.5mmHg in controls.

The increase in steps per week was statistically significant but while the reduction in SBP had a trend towards significance, the researchers cautioned that because the intervention group’s average SBP was higher at baseline, this could represent simply regression to the mean.

“Our findings suggest that interventions using faith-based strategies may be effective in changing behavior among older African-American women, which could improve health and potentially delay the progression to disability in this population,” said Duru. “We are planning to conduct a larger trial of the Sisters in Motion intervention with a longer follow-up period, and we are hopeful that faith-based interventions such as this one will be sustainable and effective in community settings.”

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