

South Carolina Researchers Study Effect of Exercise on Sleep Among Older Adult Women

A team of researchers from the University of South Carolina's Arnold School of Public Health have published findings from a study that examined the effect of structured exercise on sleep during the corresponding night among older adult women participating in an exercise program.

The paper, which was published in the [Journal of Aging and Physical Activity](#), was authored by **Charity Breneman** (recent postdoctoral research fellow with the [Rural and Minority Health Research Center](#)) in collaboration with co-authors from the Arnold School's Exercise Science Department and the University of Pittsburgh.

In this study, the researchers investigated the acute effect of exercise on sleep outcomes among healthy older women by comparing days with structured exercise versus days without structured exercise during four months of exercise training. Fifty-one women participated in the study, providing wrist-worn actigraphic sleep data following at least three days with structured exercise and three days without structured exercise at mid- and end-intervention.

The exercise intervention was treadmill walking. Multilevel models were used to examine whether structured exercise impacted sleep outcomes during the corresponding night. Overall, 1362 nights of data were included in analyses.

In unadjusted and adjusted models, the authors found that bedtimes were significantly earlier on evenings following an acute bout of structured exercise than evenings without structured exercise. No other sleep parameters differed between exercise and non-exercise days.

The researchers concluded that understanding the effects of exercise on sleep in this understudied population may help to improve their overall sleep quality.