

EXPLORING THE INTERPLAY OF BODY COMPOSITION, PHYSICAL ACTIVITY, AND OPTIMISM ON SLEEP DURATION AND QUALITY IN POSTMENOPAUSAL WOMEN

TUCCELLA, C., VINCIGUERRA, M.G., MOREIRA, H.
UNIVERSITY OF LAQUILA

INTRODUCTION: Over 50% of postmenopausal women experience sleep disturbances, which negatively impact their quality of life. Poor sleep reduces physical activity (PA) and worsens body composition (BC) changes due to estrogen depletion. Maintaining a positive attitude can help manage menopause symptoms. This study analyses the relationship between BC, physical activity PA, optimism and sleep in postmenopausal women.

METHODS: The study included 20 women (59.06 ±5.96 years) and half of the participants had been in late postmenopause. Moderate-vigorous physical activity (MVPA) and sleep parameters (TST, total sleep time; SOL, sleep onset latency; SE, sleep efficiency; SFI, sleep fragmentation index) were recorded using Actigraph GT3X+ accelerometers. The recommended levels were as follows: MVPA= 150 min/week, TST= 7 hours, SE= 85% and SFI< 5 events/hour. Fat mass (FM, %), trunk skeletal muscle mass (TSMM), and appendicular skeletal muscle mass were measured with InBody120 bioimpedance. The index of appendicular skeletal muscle mass (ASMMI) was calculated as ASMM divided by height squared. Obesity was defined as FM = 35%, and muscle mass deficit was identified with ASMMI < 5.5 kg/m². Dispositional optimism was assessed using the LOT-R scale. Data were summarized using descriptive statistics and significance was accepted as p = 0.05. Partial correlation coefficient were used to assess associations between variables.

RESULTS: In the sample, 95% experienced natural menopause, 85% did not use hormone therapy, and 35% used sleep-affecting medication. Nine participants were obese, and eight had low muscle condition. All women had SE = 85% and SFI < 5 events per hour, but 25% had insufficient sleep duration. Average MVPA was 243.55 minutes per week (90% were active) and LOT-R was 15.30 points. In early postmenopause, higher adiposity correlated with better SE (r=0.75, p=0.02), and more optimism correlated with longer SOL (r=0.67, p=0.05). MVPA inversely related to SE (r=-0.76, p=0.02). Significant associations (p=0.01), in the overall sample included SOL and LOT-R (r=0.54), SE and %FM (r=0.42), and SFI and TSMM (r=0.56).

CONCLUSION: The results indicate that SE and SOL is influenced by adiposity levels and optimism in early postmenopausal women. Better trunk muscle condition is linked to a higher SFI. More active women and those with longer estrogen depletion show lower SE. A replication with a more representative sample is recommended.

Oral Presentations