

Abstract

Influence of physical activity on depressive symptoms and mood states in postmenopausal women

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Women are more likely to experience depressive symptoms and poor quality of life during postmenopause. Physical activity is an effective strategy to improve the mental health of women in this climacteric phase. This study aimed to investigate the variation of depressive symptomatology and mood states in postmenopausal women as a function of moderate-vigorous physical activity (MVPA) levels. The search was conducted on the project Meno(s)Pause+Movement and involved 62 women (age range 48-71 years), most of them with natural menopause (87.1%) and without hormone therapy (85.5%). The Depression Anxiety and Stress Scale (DASS-21) was applied, and the Life Orientation Test-Revised (LOT-R) was used to measure dispositional optimism. Body composition was assessed by bioimpedance, and triaxial accelerometers wGT3X-BT were used to measure MVPA. The cut-off points for the non-dominant pulse proposed by Kamada et al. (2016) were considered, and physical activity was classified according to WHO (2020) guidelines. One-way ANOVA was used to compare the means of the variables in the three MVPA groups (<150 minutes/week; 150-300 minutes/week); >300 minutes/week), being

considered a 5% degree of statistical significance. Women who documented using antidepressants or anxiolytics were excluded from the analysis. The research was approved by the Ethics Committee of the University of Trás-os-Montes and Alto Douro (ref. Doc77-CE-UTAD-2022). The mean age, LOT-R, and DASS-21 scores were 53.69 years, 16.52 (± 3.0) points, and 11.02 (± 9.22) points, respectively. Most of the sample exhibited obesity but a normal muscle condition (skeletal muscle mass ≥ 16 kg). The average MVPA was 299.05 min/week, with 41.9% of the women showing very recommended levels. No differences were identified in the mean values of the LOT-R, the DASS-21 scale and its dimensions (anxiety, depression and stress) between the 3 AFMV groups. The results suggest that physical activity levels do not influence variation in optimism and depression symptomatology in postmenopausal women.

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