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The Acute Effects of Vinyasa Yoga on Mood and Anxiety in Adults with Insomnia Symptoms

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Sleep is a vital aspect of health, however, poor and/or insufficient sleep may lead to negative health consequences. Yoga has shown to positively impact health, including mental health. Vinyasa yoga (VY), a form of yoga that connects breath with movement through various poses and sequences. However, it is unclear how VY may impact mental health in adults with insomnia symptoms. **PURPOSE:** To examine the acute effects of a single session of VY on mood and anxiety symptoms in adults with mild-to-severe insomnia symptoms. **METHODS:** 33 adults with self-reported insomnia symptoms (Insomnia Severity Index = $15. \pm 3.9$; 84.8% females; White = 78.8%; body mass index = 28.9 ± 7.2 kg/m²; age = 34.9 ± 10.6 y) were randomized in either a 60-minute VY (n=17) or control ([CON] n=16) condition. The VY completed a supervised 60-min pre-recorded yoga sequence that utilized the *Journey into Power sequence* by Baron Baptiste. CON completed a seated 60-min quiet rest period that included watching a nature documentary. Mental health was assessed using validated questionnaires (i.e., Profile Mood of States Short Form [POMS], State Trait Anxiety Inventory [STAI]) that were administered pre- and post-experimental sessions. The POMS total mood disturbance (TMD) was calculated by summing the total sub-scales scores for tension, anger, fatigue, depression, and confusion and subtracting the sub-scales scores for vigor and esteem-related affect; constant of 100 was added to the TMD with higher scores indicating greater mood disturbances. The STAI scores were summed for a total that ranged from 20-80; higher scores indicating greater symptoms of anxiety. Linear mixed models with unstructured covariances were used to determine the change from pre- to post-experimental session between groups. **RESULTS:** Baseline POMS TMD (106.18 ± 4.86 and 106.25 ± 5.01) and STAI (43.29 ± 1.34 and 40.19 ± 1.39) for VY and CON, respectively. Post experimental session POMS TMD (101.82 ± 4.79 and 96.06 ± 4.93) and STAI (43.77 ± 1.52 and 40.56 ± 1.56) for VY and CON, respectively. There were no significant changes in POMS TMD or STAI scores from pre- to post-experimental session between VY and CON (TMD: $F(1,31)=1.97$, $p=0.17$; STAI: $F(1,31)=0.003$, $p=0.96$). Sub-scales showed significant main effects for time (each $p<0.02$); indicating lower scores post-experimental session for tension, fatigue, anger, depression, and confusion. **CONCLUSION:** A single session of VY did not significantly improve mood or anxiety symptoms for the VY compared to the CON. Additionally, mood and anxiety symptoms were not amplified following a single bout of VY. **SIGNIFICANCE/NOVELTY:** To our knowledge, this is the first study to examine a single session of VY on mental health effects in a sample of adults who self-report insomnia symptoms. Insomnia is the most prevalent sleep disorder, therefore investigating therapies to improve the negative mental health consequences, are urgently needed.