Mindfulness Meditation for Sleep Problems


**Study Overview**

**Objective.** To test the treatment effect of a structured mindfulness meditation program versus sleep hygiene education for improving sleep quality.

**Study design.** Single-site, parallel-group randomized clinical trial.

**Setting and participants.** Adults aged 55 years and older were recruited from the urban Los Angeles community through a newspaper advertisement and flyers posted in community centers. Participants had to agree to be randomized and have a Pittsburgh Sleep Quality Index (PSQI) score [1] exceeding 5 at screening. Exclusion criteria were current smoking, substance dependence, inability to speak English, depression, cognitive impairment, current daily meditation, and obesity. Also excluded were those who reported a current inflammatory disorder, sleep apnea, restless legs syndrome, illness, or infection.

**Intervention.** Participants were randomized into 2 standardized treatment conditions: the Mindful Awareness Practices program (MAPs) and sleep hygiene education (SHE). Each treatment consisted of weekly 2-hour group-based classes over the course of the 6-week intervention.

The comparison sleep hygiene program matched the MAPs condition for time, attention, group interaction, and expectancy of benefit effects. Eight visits to the study site were requested, including 1 pretreatment assessment visit, 6 intervention sessions, and 1 posttreatment assessment visit. Participants were compensated up to $50 in gift cards and received parking vouchers for visits.

**Main outcome measure.** The primary outcome measure was the PSQI, a commonly used and validated 19-item self-rated questionnaire that assesses sleep quality and disturbances over a 1-month time interval. A global score greater than 5 yields a diagnostic sensitivity of 89.6% and specificity of 86.5% in distinguishing good and poor sleepers [1]. Secondary outcomes included scores on instruments that measured depression, anxiety, stress, and fatigue.

**Results.** After screening for eligibility, 49 adults were randomized, 24 to MAPs and 25 to SHE. Session attendance was similar across the groups. Mean (± SD) age of participants was 66.3 (7.4) years and 67% were female. Mean PSQI was 10.2 at baseline and 9.1 postintervention for MAPs, and 10.2 at baseline and 9.1 postintervention for SHE. In the intention-to-treat analyses, PSQI im-
proved by 2.8 in MAPS vs. 1.1 in SHE (between-group mean difference, 1.8; 95% confidence interval, 0.6–2.9) with an effect size of 0.89. Relative improvements in depression scores and daytime fatigue were also noted.

**Conclusion.** The program improved sleep quality relative to SHE. Mindfulness meditation appears to have a role in addressing the burden of sleep problems in older adults.

**Commentary**

Older adults commonly report disturbed sleep, and an expanding literature suggests that poor sleep increases the risk of adverse health outcomes, including frailty and lower cognitive function. Current nonpharmacologic treatments for disturbed sleep include sleep hygiene education and cognitive behavioral therapy (CBT), which have been shown to be effective. However, as the current study’s authors point out, clinical interventions like CBT are intensive, require administration by highly trained therapists, and are intended for patients with insomnia [2].

These researchers investigated an alternative intervention consisting of mindfulness meditation. Mindfulness has been defined as being intentionally aware of internal and external experiences that occur at the present moment, without judgment. Mindfulness-based interventions are increasingly being studied for a wide array of health conditions, and courses in the community and online are frequently available.

The results of the current study, which applied mindfulness meditation to the problem of sleep disturbance in older adults, are compelling. The effect size of 0.89 was large and of clinical relevance: as the authors point out, in a meta-analysis of behavioral interventions for insomnia, the average effect size for improvement in subjective sleep outcomes among older adults was 0.76 [3]. It is noteworthy that the authors of the current study recruited patients on the basis of PSQI score and did not require a diagnosis of insomnia. The use of the PSQI means that the sample consisted of patients with self-rated poor sleep quality, and epidemiologic evidence suggests that a PSQI score greater than 5 identifies older persons at risk for adverse health outcomes [4]. Thus, this is a logical group to target. In addition, the sample may have included those with undiagnosed insomnia and other sleep disturbances; this fact makes the findings even more impressive [4].

The use of validated measures are a strength of the study. Limitations include lack of postintervention assessment data for 12% of participants and a preponderance of female and highly educated participants.

**Applications for Clinical Practice**

Standardized mindfulness programs are becoming more widely available, both online and in the community, and can be be introduced to older adults to help them with moderate sleep disturbances.

**References**