

# Cognitive behavioral therapy improves sleep and pain in people with osteoarthritis

August 16 2009

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A study in the Aug. 15 issue of the *Journal of Clinical Sleep Medicine* shows that the use of cognitive behavioral therapy for insomnia (CBT-I) is an effective treatment for older patients with osteoarthritis and comorbid insomnia.

Results showed that treatment improves both immediate and long-term self-reported [sleep](#) and [pain](#) in older patients with [osteoarthritis](#) and comorbid insomnia without directly addressing pain control. Participants who received CBT-I reported significantly decreased sleep latency (initially decreased by an average of 16.9 minutes and 11 minutes a year after treatment) and wake after sleep onset (initially decreased by an average of 37 minutes and 19.9 minutes a year after treatment), significantly reduced pain (initially improved by 9.7 points and 4.7 points a year after treatment) and increased sleep efficiency (initially increased by 13 percent and 8 percent a year after treatment). These improvements persisted in CBT-I patients (19 of 23) who were further assessed for sleep quality and perceived pain at a one-year follow-up visit.

According to lead author Michael V. Vitiello, PhD, professor at the University of Washington in Seattle, Wash., results indicate that insomnia is not merely a symptom of osteoarthritis but rather a co-existing illness. Vitiello said improving sleep can result in an improvement in osteoarthritis, which is particularly important because, at least in older adults, insomnia rarely exists by itself, rather it typically coexists with other illnesses, pain conditions and depression.

"The particular strength of CBT-I is that once an individual learns how to improve their sleep, study after study has shown that the improvement persists for a year or more," said Vitiello. "What we and others are showing is that CBT-I can not only improve sleep but that improvement of sleep may lead to improvement in co-existing medical or psychiatric illnesses, such as osteoarthritis or [depression](#), and in the case of our study, that these additional benefits can be seen in the long term."

A total of 23 patients with a mean age of 69 years were randomly assigned to CBT-I, while 28 patients with a mean age of 66.5 years were assigned to a stress management and wellness control group. Participants in the control group reported no significant improvements in any measure.

CBT-I intervention consisted of eight weekly, two-hour classes ranging in size from four to eight participants. All classes were conducted in an academic medical center in downtown Chicago and were spread out over the calendar year. Participants received polysomnographic assessment in their home in order to exclude individuals with sleep apnea. Sleep and pain were assessed by self-report at baseline, after treatment, and (for CBT-I only) at one year follow-up. Sleep logs were recorded prior to and after treatment and at the one year follow-up and included information about sleep latency, wake after sleep onset and sleep efficiency. Subjects were required to be over the age of 55, have insomnia symptoms that have persisted for at least six months and have been diagnosed with osteoarthritis. A majority of the sample was female. Volunteers were recruited from placements of brochures, memos and flyers in places where medical patients who qualified for the study might see them.

According to the study, sleep quality is a major concern for people with osteoarthritis, with 60 percent of people who have the disease reporting pain during the night. Chronic pain initiates and exacerbates sleep disturbance; disturbed sleep in turn maintains and exacerbates chronic

pain and related dysfunction.

The findings indicate that successful treatment of sleep disturbance may improve the quality of life for patients in this population. The authors recommend that CBT-I, which specifically targets sleep, be incorporated into behavioral interventions for pain management in osteoarthritis and possibly for other chronic pain conditions as well.

Source: American Academy of Sleep Medicine ([news](#) : [web](#))

Citation: Cognitive behavioral therapy improves sleep and pain in people with osteoarthritis (2009, August 16) retrieved 6 May 2024 from <https://medicalxpress.com/news/2009-08-cognitive-behavioral-therapy-pain-people.html>

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