

New study to investigate role of sleep in chronic pain

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Credit: Vera Kratochvil/public domain

Washington State University will lead a study to understand the

relationship between sleep and chronic pain, part of a nationwide effort to address the rising abuse of opioid pain relievers and expand the arsenal of non-drug treatment options.

"Physicians are being pressured to stop prescribing so many [opioids](#)," said Marian Wilson, assistant professor in the WSU College of Nursing and lead investigator on the study. New prescription guidelines issued this year by the U.S. Centers for Disease Control and Prevention recommend providers limit the use of opioids in patients with [chronic pain](#), she said.

"It's not fair to start cutting longtime opioid users off of their medications without giving them some effective alternatives," she said.

The relationship between [sleep](#) and pain has not been adequately studied, she said: "There's a small body of literature that suggests that pain and sleep correlate—bad sleep goes with bad pain—but we don't know for sure which comes first. 'Is my pain worse because I've slept poorly, or was my pain so bad that I couldn't sleep?'"

Subproject of veterans hypnosis-pain study

Wilson has joined with colleagues at WSU Health Sciences Spokane and the University of Washington's Department of Rehabilitation Medicine on a study funded with a new two-year, \$305,651 supplemental grant from the National Center for Complementary and Integrative Health, part of the National Institutes of Health (NIH).

The grant allows Wilson to run the study as a subproject of a larger NIH-funded project led by pain experts Mark Jensen, a UW professor, and Rhonda Williams, a UW associate professor and psychologist with the U.S. Veterans Administration Puget Sound Healthcare System. Sleep expertise will be contributed by Wilson's WSU co-investigator Hans Van

Dongen, professor in the Elson S. Floyd College of Medicine and director of the Sleep and Performance Research Center.

The parent UW study evaluates the efficacy of self-hypnosis and mindfulness meditation training interventions to treat chronic pain in 240 military veterans.

The WSU subproject will collect additional data on a pool of 135 military veterans recruited from the parent study. Participants will complete sleep surveys and wear sleep monitoring devices for a week at three separate times: just before their intervention, immediately afterward and three months post-intervention.

Sleep data will be paired with pain-related data from the parent study to see if any improvements in pain are preceded or followed by improvements in sleep, or whether they happen at the same time. Insights will form a first step toward development of sleep treatments to help alleviate chronic pain.

Passionate about pain management

Wilson was an oncology (cancer treatment) nurse for 11 years before her passion for [chronic pain management](#) guided her to a new calling as nurse scientist.

While pursuing a Ph.D. in nursing at WSU, she evaluated a new program that addressed overuse of a hospital emergency department by patients with chronic pain who were seeking opioids. The program, which referred these patients back to their primary care providers, was considered a success in that it reduced the frequency of emergency department visits in this group of patients.

Yet, the project left Wilson feeling that more could be done to address

the needs of individuals with chronic pain, including new ways to manage symptoms without medications. This led to her dissertation research on the effectiveness of an online self-management program for people with chronic pain, which she found resulted in reduced opioid use and misuse.

Opioids too readily prescribed

More recently, she conducted a study that offered the same online program to people with chronic pain who receive methadone replacement treatment for opioid addiction. She did in-depth interviews with some participants to better understand why some end up addicted and what could be done to better manage their pain and addiction symptoms.

While the results of those studies haven't been fully analyzed, it is clear to Wilson that something has to change.

"We're sending people home from tooth extractions and minor surgeries with a month's supply of opioids," she said, adding that as little as two weeks of daily opioid use can cause physical dependence.

"As a result, we've got opioids in almost every house in America and people becoming addicts and ending up in the methadone clinic," she said. "Let's do what we can to prevent this from happening."

Provided by Washington State University

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