

# Poor sleep quality is associated with greater disability in rheumatoid arthritis patients

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A study in the Feb. 15 issue of the *Journal of Clinical Sleep Medicine* found that poor sleep quality correlated with higher levels of depressive symptoms, greater pain severity, increased fatigue, and greater functional disability in patients with Rheumatoid Arthritis (RA). The study suggests that addressing sleep problems via pharmacological or behavioral interventions may have a critical impact on the health and lives of patients with RA.

The study represents a cross-sectional examination of the relationship between sleep quality and functional disability in 162 patients with RA. The sample had an average age of 58.5 years, and 76 percent were female. All patients had been diagnosed with RA for at least two years; on average, patients had RA for 14 years.

Participants completed the following questionnaires: Pittsburgh Sleep Quality Index (PSQI), Beck Depression Inventory-II, Medical Outcomes Study Short Form - 36, and the Health Assessment Questionnaire. The results provided input on their sleep quality, depression, fatigue, and functional disability and pain severity, respectively. Patients also provided sociodemographic information and their medical history.

Results show that sleep quality has an indirect effect on functional disability after controlling for age, gender and number of comorbidities. According to the PSQI results, 61 percent of patients were poor sleepers and 33 percent reported having pain that disturbed their sleep three or more times per week.

"The primary finding of our study is that poor sleep quality is associated with greater functional disability among patients with RA and this relationship may be explained by pain severity and fatigue," said lead author Dr. Faith S. Luyster, research assistant professor at the University of Pittsburgh School of Nursing in Pittsburgh, Pa. "These results highlight the importance of addressing sleep complaints among patients with RA. By treating [sleep problems](#) either pharmacologically or behaviorally, symptoms and activity limitations associated with RA may be reduced."

The study's finding that poorer sleep quality is associated with greater pain severity is consistent with recent evidence suggesting that sleep disruption may lower pain threshold and enhance pain in RA and otherwise healthy adults.

According to the National Institute of Health, RA is an inflammatory disease affecting about 1.3 million U.S. adults, and causes pain, swelling, stiffness, and loss of function in the joints. Disturbed sleep has been found to be a major concern among persons with RA.

Physical disability resulting from polyarticular joint disease in patients with RA may limit their ability to carry out daily activities such as dressing, walking, grooming, and writing - tasks that can be further restricted by fatigue, pain severity, and depression.

It is possible that [functional disability](#) may affect depression, pain severity and fatigue, which in turn may affect sleep quality. It is likely that the relationships are bidirectional to some extent.

"Not sleeping well at night can contribute to greater pain sensitivity and fatigue during the day which in turn can limit a patient's ability to engage in activities of daily living and discretionary activities," Luyster said.

Luyster noted that treating sleep disturbances in RA patients might have beneficial effects beyond improving sleep.

Provided by American Academy of Sleep Medicine

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