

Subjective symptoms of sleep quality and daytime sleepiness associated with declining quality of life

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A study in the Aug. 1 issue of the journal *Sleep* indicates that self-reported worsening in initiating and maintaining sleep over a five-year period was significantly associated with poorer mental quality of life, and increasing daytime sleepiness symptoms were associated with both poorer physical and mental quality of life.

Adjusted models show that an increase in difficulty initiating and maintaining [sleep](#) was significantly associated with a change in Mental Component Summary (MCS) scales, while increasing severity of excessive [daytime sleepiness](#) measured by the Epworth Sleepiness Scale was associated with a change in both MCS and Physical Component Summary (PCS) scales.

Although severity of sleep disordered breathing (SDB) measured by mean respiratory disturbance index (RDI) increased from 8.1 at baseline to 10.9 at follow-up, multiple linear regression models show no significant association between change in RDI and changes in PCS or MCS. The authors suggest that in patients with SDB, the presence of excessive daytime sleepiness determines whether there will be an impact on quality of life.

According to lead author Graciela E. Silva, PhD, assistant professor in the College of Nursing and Health Innovation at Arizona State University, the results provide important and surprising insights

regarding the relationship between sleep and quality of life.

"While we were expecting an association between quality of sleep and quality of life, it was surprising that we did not find a significant association between objective measures of quality of sleep and quality of life, but that only subjective measures of sleep were associated with quality of life," said Silva. "These findings signal to the importance of perception of quality of sleep on quality of life."

The cross-sectional, retrospective study obtained polysomnographic and clinical data from 3,078 patients who were included in the baseline examination of the Sleep Heart Health Study (SHHS), a multi-center longitudinal study of participants over the age of 40.

The mean age of participants was 62 years at baseline and 67 years at follow-up. Fifty-five percent were women, and most were Caucasian (75 percent) and married (77 percent). Coronary heart disease was more prevalent in men, and respiratory disease was more prominent in women. Measures of quality of life were obtained using the PCS and MCS scales of the Medical Outcomes Study Short-Form Health questionnaire. The primary exposure was change in the RDI obtained from unattended overnight polysomnograms performed approximately five years apart.

Results show that the mean PCS dropped from 48.5 at baseline to 46.3 at follow-up, while the mean MCS increased slightly from 54.1 to 54.8. Significantly lower scores for women than men were seen at baseline and follow-up for the PCS and MCS. Hispanics/Mexican Americans had lower baseline MCS and PCS scores compared with the other ethnic groups. Obese subjects had lower PCS scores than non-obese participants at baseline and follow-up; however, no difference was found for MCS at either survey. Scores for both summary scales were lower for subjects with respiratory diseases and those taking sleeping pills,

while PCS but not MCS scores were significantly lower for subjects with coronary heart disease.

Findings suggest that physical limitations imposed by the presence of obesity, [coronary heart](#) disease and respiratory disease adversely impact physical components of quality of life. The authors state that primary treatment to reduce morbidity and symptoms related to these conditions would ultimately improve sleep quality.

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

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