

Poor sleep quality linked to multiple chronic conditions

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When clinicians focus on lifestyle changes to manage and prevent multiple chronic conditions, they will often ask patients about their alcohol consumption, smoking habits, exercise regime and diet. But what

about the quality and duration of their sleep?

Researchers at Western University's Schulich School of Medicine & Dentistry have shown that how well you sleep and for how long is linked to patients' odds of living with multiple chronic conditions, and they argue that promotion of good sleep habits should be given greater focus in clinical practice and [public health](#).

Their study, "Sleep behaviors and multimorbidity occurrence in middle-aged and [older adults](#)," was recently published in the journal *Sleep Medicine* and used data from more than 30,000 adults over the age of 45 who were part of the Canadian Longitudinal Study on Aging (CLSA).

"Sleep is still a neglected clinical and public health issue, and this study provides additional evidence of the potential role of sleep for the prevention and management of several chronic conditions," said Dr. Saverio Stranges, professor and Chair of the Department of Epidemiology and Biostatistics and principal investigator on the study.

The team looked specifically at the occurrence of multimorbidity, which is defined as having two or more chronic conditions diagnosed in a single individual. The conditions can include relatively common chronic diseases such as diabetes, hypertension, to depression and cancer, among others.

The study found a consistent relationship between instances of multimorbidity and self-reported poor sleep quality and altered sleep duration, which includes both too much and too little sleep.

Specifically, [male participants](#) who were dissatisfied or very dissatisfied with their sleep had a 20 percent increase in the odds of multimorbidity. And participants aged 65 to 74 years of age who self-reported dissatisfaction with their sleep quality had a 43 percent increase in the

odds of multimorbidity.

When looking at sleep duration, while the study found a link between multimorbidity and getting too little sleep, the researchers actually found a much stronger link with too much sleep.

Female participants who self-reported short sleep duration (less than six hours a night) had a 16 percent increase in the odds of multimorbidity and those who self-reported long sleep duration (more than eight hours a night) had a 44 percent increase in the odds of multimorbidity. Male participants who self-reported long sleep duration had a 45 percent increase in the odds of multimorbidity.

"Previous international research has shown an association between sleep and a range of chronic conditions, but this is the first Canadian study to look specifically at the relationship between sleep and multimorbidity among middle-aged and older adults.

"This study highlighted an important relationship between self-reported sleep patterns, both duration and satisfaction, and the odds of multimorbidity among older female and male adults in Canada," said Kathryn Nicholson, Ph.D., professor at Schulich Medicine & Dentistry, who was the lead author on the study. "Although it is important to acknowledge that this relationship was cross-sectional and causation cannot be determined from this study, we were fortunate to utilize a comprehensive data source like the CLSA, which allowed us to examine both the self-reported patterns of sleep and the occurrence of multimorbidity."

The authors point out in the paper that there is already established evidence showing that lack of sleep has negative effects on the cardio-metabolic, endocrine, immune and inflammatory systems, and that over the past several decades the population has been experiencing poorer

quality of sleep.

"This is concerning because if poor quality of sleep can increase the risk of a range of [chronic conditions](#), then we should be concerned about sleep hygiene and put that at the center of our focus both as clinicians and as public health scientists," said Stranges.

The researchers will be continuing their research by using the first set of follow-up data from the CLSA to begin to explore longitudinal patterns between multimorbidity and other health indicators.

"High-quality sleep can be very beneficial, but achieving this high-quality sleep can sometimes be a challenge. We hope that this study will continue to emphasize the importance of focusing on sleep as a key health indicator and ideally, this assessment of sleep will include a focus on sleep quality and sleep [duration](#) and be a point of conversation during a clinical encounter for all patients living with multimorbidity," said Nicholson.

Provided by University of Western Ontario

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