Self-reported daytime sleepiness is associated with telomere shortening

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People who self-report daytime sleepiness were found to have shorter telomeres regardless of whether they had obstructive sleep apnea, according to a new study from researchers at the Mayo Clinic in Rochester, Minnesota. The findings will be presented virtually at the American Physiological Society's (APS) annual meeting at Experimental Biology 2021.

Telomeres protect DNA from biological stressors, and shortened telomeres are associated with multiple cardiovascular diseases, according to the research team. This study found people reporting daytime sleepiness had similar telomere length compared to those without sleepiness; however, obstructive sleep apnea influences telomere length and was more prevalent in the sleepy group. When the researchers matched individuals between groups for the presence of sleep apnea, among other variables (e.g., age, weight), they found sleepy people without sleep apnea had shorter telomeres compared to those without sleepiness.

In addition, there were no differences in telomere length between sleepy and non-sleepy individuals with sleep apnea. In essence, the study concluded daytime sleepiness was found to be linked to telomere shortening in the absence of sleep apnea.

Researchers are hopeful additional study will lead to reducing the rate of telomere shortening or reversing it altogether, which will could lower cardiovascular risk in people who report daytime sleepiness.

More information: Abstract title: "Self-reported daytime sleepiness is associated with telomere shortening"