Impaired Sleep, Multimorbidity, and Self-Rated Health among Canadians: Findings from a Nationally representative survey

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Abstract

Background: Self-rated health (SRH) is a globally recognized measure of health status. Both impaired sleep (IS) and the presence of multimorbidity are related to poorer SRH, but the precise nature of these associations remains unclear. This study explored the association between IS, multimorbidity, and SRH among Canadian adults.

Method: We used 2017-18 Canadian Community Health Survey (CCHS) data for this study. The main variable of interest, self-rated health (SRH), measured participants’ health on a 5-point Likert scale, later categorized as good/very good/excellent or fair/poor. The primary predictor, IS, was derived from two variables and categorized into four groups: no sleep issues; fewer sleeping hours (<7 hours) only; trouble sleeping only; and fewer hours & trouble sleeping. Multimorbidity was present (yes/no) if a participant indicated being diagnosed with two or more chronic conditions.

Results: Just over one in ten Canadians reported fair/poor SRH and approximately one-quarter had multimorbidity or experienced few sleep hours in combination with trouble sleeping. The adjusted model indicated greater odds of fair/poor SRH associated with the 40-64 years age group, male sex, and lower SES. It also suggested the presence of multimorbidity (AOR: 4.63, 95% CI: 4.06-5.28) and a combination of fewer sleep hours and troubled sleep (AOR: 4.05, 95% CI: 2.86-5.74) is responsible for poor SRH. Forty-four percent of the total effect of IS on SRH was mediated by multimorbidity.

Conclusion: This unique finding highlights the mediating role of multimorbidity, emphasizing the importance of addressing it alongside sleep issues for optimal health outcomes.

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