

Peer Review Report

Review Report on Sleep problems associate with multimorbidity: A systematic review and meta-analysis

Systematic Review, Public Health Rev

Reviewer: Reviewer 4

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EVALUATION

Q 1 Please summarize the main theme of the review.

The study is a systemic review and meta-analysis on the association between sleep problems and multimorbidity. Six sleep problems including abnormal sleep duration, insomnia, snoring, poor sleep quality, Six electronic databases were searched to identify cross-sectional and cohort studies focusing on the above association and a pooled odds ratio and 95% CIs were provided. 17 observational studies were included for the systemin review. Cochran's Q test and the I2 statistics were used to find heterogeneity among studies. Additional meta analysis was done to assess association between sleep problems and chronic conditions. The association between short sleep duration and multimorbidity was significant in all subgroups. Association between Insomnia and mutimorbidity also was significant with between study heterogeneity and funnel plots indicating publication bias. The association between snoring, poor sleep quality, RLS and OSA were found inconclusive.

Q 2 Please highlight the limitations and strengths.

Strength: Sleep problems are a growing public health challenge which impact a number of chronic conditions. A systemic review on the impact of sleep problems of multiple chronic conditions or multimorbidity was a great research topic. The study methods and results were explained well in the article.

Limitations: Multimorbidity is not as commonly used as co-morbidity to assess other chronic conditions associated with sleep disorders in the sleep literature which may have caused a smaller sample size for review. Although the authors says multimorbidity and comorbidity were used in the search words (line 70), only multimorbidity has been shown on the characteristics of studies on table 1.

Q 3 Please provide your detailed review report to the authors, structured in major and minor comments.

This systemic review analyzed association between six sleep problems and multimorbidity. The search strategy should have included multimorbidity and comorbidity both to find many more studies with this reference, Due to limiting the reference only to multimodality, which term is not often used in the sleep literature, the finding has been skewed.

PLEASE COMMENT

Q 4 Is the title appropriate, concise, attractive?

The term multimorbidity needs further explanation since it does not encompass the full spectrum of co-morbidities associated with sleep disorders.

Q 5 Are the keywords appropriate?

Key words should also include restless leg syndrome, obstructive sleep apnea

Q 6 Is the English language of sufficient quality?

Yes

Q 7 Is the quality of the figures and tables satisfactory?

Yes.

Q 8 Does the reference list cover the relevant literature adequately and in an unbiased manner?

No. There are many other studies showing association between sleep apnea and co-morbidities. Multimorbidity has not been used in the research of sleep literature except only few studies which made this study have the outcome of inclusive data for the relationship of OSA and multimorbidity. I

Q 9 Does this manuscript refer only to published data? (unpublished data is not allowed for Reviews)

No.

Q 10 Does the manuscript cover the issue in an objective and analytical manner

No.

Q 11 Was a review on the issue published in the past 12 months?

No.

Q 12 Does the review have international or global implications?

This review will shed some light on the importance of sleep problems impacting multiple chronic conditions. But it does not comprehensively take all other research studies to suggest the conclusion it drew. It needs to elaborate the search words to co-morbidity to get more studies to make a justified conclusion.

QUALITY ASSESSMENT

Q 13 Quality of generalization and summary



Q 14 Significance to the field



Q 15 Interest to a general audience



Q 16 Quality of the writing



REVISION LEVEL

Q 17 Please take a decision based on your comments:

Major revisions.