

The Relationship between Sleep Disturbances and Preeclampsia: Systematic Review

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Abstract

Background: During pregnancy, sleep disorders are common and linked to negative outcomes. A review was conducted to study their relationship with preeclampsia.

Methods: This research aimed to analyze the relationship between sleep disturbances and gestational hypertension/preeclampsia by reviewing original studies published until July 2023. comprehensive web searches such as Web of Science, Scopus, PubMed, Google Scholar, and Pro-Quest databases, and the Persian databases such as SID, Magiran Ranmedex, and Irandoc Embrace to extract data regarding study design and result estimation. Various databases were used for the search, and the Newcastle-Ottawa scale was employed to evaluate the study quality. Meta-analyses of odds ratios and 95% confidence intervals were conducted, along with the calculation of standardized mean differences (SMD) for quantitative variables.

Results: The included 23 studies covered inclusion indicators. The results indicate a significant association between sleep disorders such as disordered breathing (Odds Ratio= 20.84, CI 95% [0.93-12.60]), Snoring (OR= 6.75 , 95% CI [5.08–85.52], SDB (SMD= 3.91, CI95% [2.11, 5.70]), OSA (SMD= 4.79, CI95% [1.55–8.04]), insomnia (SMD= 0.53–0.59 [CI -0.59, -0.45]), and sleep quality (SMD= 0.79, CI95% [0.47, 1.04]) with preeclampsia.

Conclusion: Moderate to severe sleep disturbances during pregnancy may contribute to adverse outcomes like gestational hypertension and preeclampsia.

Keywords: Sleep disturbance, preeclampsia, pregnancy