

BACKGROUND

Sleep Disordered Breathing (SDB) has been of significant relevance to the dentist as it has been associated not only with sleep bruxism (SB) but also with a variety of oral and craniofacial problems. Previous studies have supported the association between SB and SDB but no systematic analysis has been published.

OBJECTIVE

To consolidate our current knowledge on the potential association between SB and SDB.

METHODS

Eligibility Criteria: Studies using full ambulatory PSG as the gold standard reference test to determine SDB and the international diagnostic criteria proposed by AASM to determine sleep bruxism.

Resources: MEDLINE, PubMed, EMBASE, The Cochrane Library and LILACS.

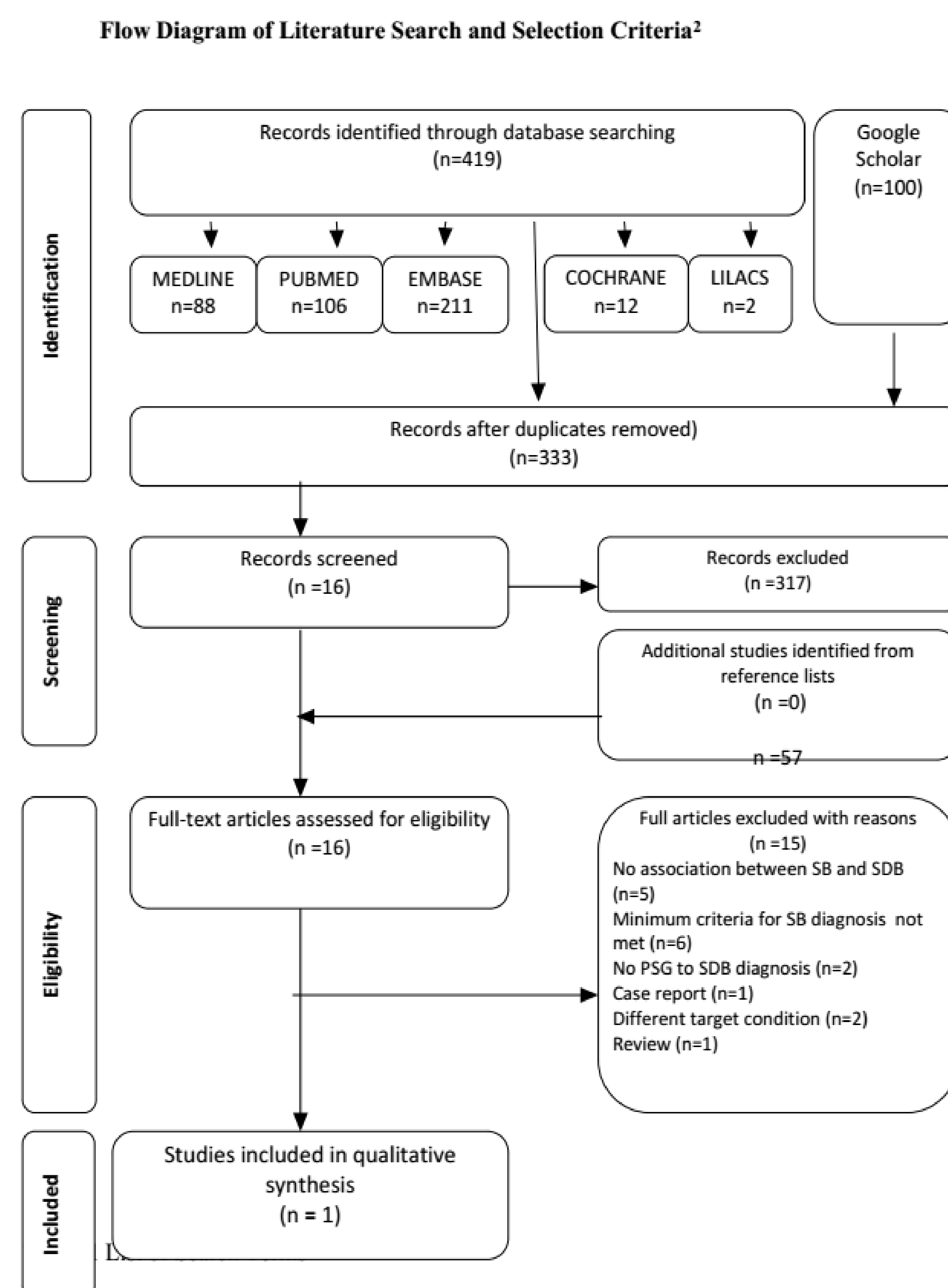
Study selection: Independently done by both reviewers and disagreements were resolved by mutual agreements.

Data Collection: Two authors collected the required information independently from the selected articles.

Risk of Bias: The methodology of selected studies was evaluated using the seven item quality assessment tool for bruxism studies (Qu-ATEBS)

Summary Measures: Frequency of SB in patients with SDB diagnosed at PSG was evaluated.

Flow Diagram



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RESULTS

Study Selection: We found 333 abstracts. And selected 16 articles for full-text reading. Only one study met the inclusion criteria and was selected for qualitative /quantitative analysis.

Study characteristics: Summary of the characteristics can be found in the table.

Risk of Bias: The reported methodologically quality of the reported study was high.

Synthesis of Results: Difference between the groups was analyzed by students t-test at the 5% level of significance. Standard deviation was used as an index of variability.

CONCLUSIONS

There is not enough evidence to either confirm or discredit the association between SB and SDB.

REFERENCES

Moher D, Liberati A, Tetzlaff J, Altman DG. The PRISMA Group. Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *PLoS Med* 2009; 151:264-269

American Academy of Sleep Medicine (AASM), editor. International classification of sleep disorders. Diagnosis and coding manual. Section on sleep related bruxism. 1st edition: American Academy of Sleep Medicine; 1990: 182-185.

Dawson A, Raphael KG, Glaros A, Axelsson S, Arime T, Emberg M et al. Development of a quality-assessment tool for experimental bruxism studies: reliability and validity. *J Orofac Pain*. 2013; 27:111-122.

Sjoholm TT, Lowe AA, Miyamoto K, Fleetham JA, Ryan CF. Sleep bruxism in patients with sleep-disordered breathing. *Arch Oral Biol* 2000; 45:889-96.

Author, Year	Country	Sample	Age (mean)	Finding	Main Conclusion
Sjoholm <i>et al</i> , 2000	Canada	21 patients (19 male and 2 female)	40.0 (SD =9.2)	SB was diagnosed in 54% of patients with mild OSA and 40% of patients with moderate OSA.	SB was not observed during or in temporal conjunction with snoring or apneic events in any of the evaluated patients. Masseter activity was not observed during apnea episodes.

Table - Summary of descriptive characteristics of included article