

**Conclusion:** In this study, the clinical response rate, as defined by the Sher criteria, was 86% (26/30 patients), when the Tx PSG response was compared with the baseline values. Besides, the mean AHI under final titration pressure is 2.58. The results show that increasing intraoral pressure would help to further improve the sleep apnea.

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### UTILIZATION OF THE STOP-BANG QUESTIONNAIRE FOR REFERRAL OF OBSTRUCTIVE SLEEP APNEA IN VARIOUS GEOGRAPHICAL REGIONS

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**Introduction:** Obstructive sleep apnea (OSA) is a highly prevalent global health concern and is associated with many adverse outcomes for patients. Our objective is to determine the utility of the STOP-Bang questionnaire in the sleep clinic setting to screen for and stratify the risk of OSA among populations from different geographical regions.

**Methods:** The following electronic databases were systematically searched from 2008 to March 2020: MEDLINE, Medline-in-process, Embase, EmCare Nursing, Cochrane Central Register of Controlled Trials, Cochrane Database of Systematic Reviews, PsycINFO, Journals @ Ovid, Web of Science, Scopus, and CINAHL. Inclusion criteria were: 1) assessment of the STOP-Bang questionnaire to screen for OSA in adult subjects (age  $\geq 18$  years); 2) patients referred to sleep clinic; 3) lab-polysomnography or home sleep apnea testing results confirmed the OSA diagnosis; and 4) apnea-hypopnea index (AHI) or respiratory disturbance index (RDI) was used to diagnose and grade the severity of OSA. Clinical and demographic data were extracted from each article independently by two reviewers (B.P., L.C.). Pooled predictive parameters were calculated using 2x2 contingency tables. Random effects meta-analyses and meta-regression with sensitivity analyses were performed. The Preferred Reporting Items for Systematic Review and Meta-analyses (PRISMA) guidelines were followed.

**Results:** Forty-seven studies (n=26,547) studies met the criteria for systematic review (mean age: 49 $\pm$ 14 years, mean body mass index: 32 $\pm$ 8 kg/m<sup>2</sup>, 65% male). Studies were organized into different geographic regional groups – North America, South America, Europe, Middle East, East Asia, and South/Southeast Asia. The prevalence of all OSA, moderate-to-severe OSA, and severe OSA was 80%, 58%, and 39%, respectively. The area under the receiver operating curve of a STOP-Bang score  $\geq 3$  to detect moderate-to-severe OSA is high (>0.80) in all regions, except in East Asia (0.52). A STOP-Bang score  $\geq 3$  has excellent sensitivity (>90%) and high discriminative power to exclude moderate-to-severe, and severe OSA with negative predictive values of 77% and 91%, respectively.

**Conclusion:** The meta-regression analysis demonstrates that the STOP-Bang questionnaire can be utilized as an effective OSA screening tool among different geographical populations to assist in prioritizing patients with suspected OSA for assessment in sleep clinic.

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### MATERNAL HABITUAL SNORING AND BLOOD PRESSURE TRAJECTORIES IN PREGNANCY

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**Introduction:** Habitual snoring has been associated with hypertensive disorders of pregnancy. However, exactly when blood pressure (BP) trajectories diverge between pregnant women with and without habitual snoring is unknown. Moreover, the potentially differential impact of chronic versus pregnancy-onset habitual snoring on maternal BP trajectories during pregnancy has not been examined.

**Methods:** In a cohort study of 1,305 pregnant women from a large Midwestern medical center, participants were asked about habitual snoring ( $\geq 3$  nights/week) and whether their symptoms began prior to or during pregnancy. Demographic and BP data throughout pregnancy, systolic (SBP) and diastolic (DBP) were abstracted from medical charts. Linear mixed models were used to examine associations between habitual snoring-onset and pregnancy BP trajectories.

**Results:** Thirty percent of women reported snoring before pregnancy (chronic snoring) and an additional 23% reported pregnancy-onset snoring. Overall, women with pregnancy-onset snoring had higher mean SBP and DBP compared to those with chronic habitual snoring or controls (non-habitual snoring). In gestational week-specific comparisons with controls, SBP became significantly higher around 20 weeks' gestation among women with pregnancy-onset snoring and in the third trimester among women with chronic snoring. Pairwise mean differences in DBP were significant only among women with pregnancy-onset snoring relative to controls, after 15 weeks' gestation.

**Conclusion:** In a large cohort of pregnant women, those with pregnancy-onset or chronic habitual snoring had significantly elevated systolic BP in comparison to non-habitual snoring controls, in the second and third trimester, respectively. The findings of divergent BP trajectories suggest the two groups of women with habitual snoring in pregnancy should be considered separately when evaluating gestational 'windows' for increased BP monitoring and provide insight into pathophysiologic changes.

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### IDENTIFYING GAPS IN EVALUATION, TREATMENT, AND TREATMENT ADHERENCE IN WOMEN VETERANS WITH SLEEP DISORDERED BREATHING RISK FACTORS

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