

The Predictive Probability of Moderate or Severe Sleep Apnea by the STOP-BANG Questionnaire

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Introduction

- The diagnosis of patients with suspected obstructive sleep apnea (OSA) is important because of the increased risk of perioperative complications.
- Polysomnography (PSG) - the gold standard for diagnosis of OSA – may be time consuming and costly.
- The STOP-Bang questionnaire is a validated screening tool for obstructive sleep apnea.
- We conducted this meta-analysis to determine the predictive probability of moderate (AHI >15) or severe (AHI >30) obstructive sleep apnea by the STOP-Bang Questionnaire.

Methods

- Literature Databases searched** (From 2008 to January 2015)
 - MEDLINE
 - Medline-in-process & other non-indexed citations
 - Embase
 - Cochrane Central Register of Controlled Trials
 - Cochrane Databases of Systematic Reviews
 - Google Scholar
 - Web of Sciences
 - Scopus
 - PubMed
- Inclusion Criteria**
 - The study used the STOP-Bang questionnaire as a screening tool for OSA in adult subjects >18 years
 - The accuracy of the STOP-Bang questionnaire was evaluated by comparing its results with the results of a polysomnogram (PSG either laboratory or portable) as a gold standard for diagnosing OSA
 - OSA was defined as apnea hypopnea index (AHI) or respiratory disturbance index (RDI) ≥ 5
 - Data on the predicted probability of moderate or severe OSA with the different STOP-Bang scores
 - The STOP-Bang questionnaire and full-text papers were written in English language.

Results

Predictive probability of moderate (AHI ≥ 15) or severe OSA (AHI ≥ 30) by different STOP-Bang scores

5 Studies, n=2792

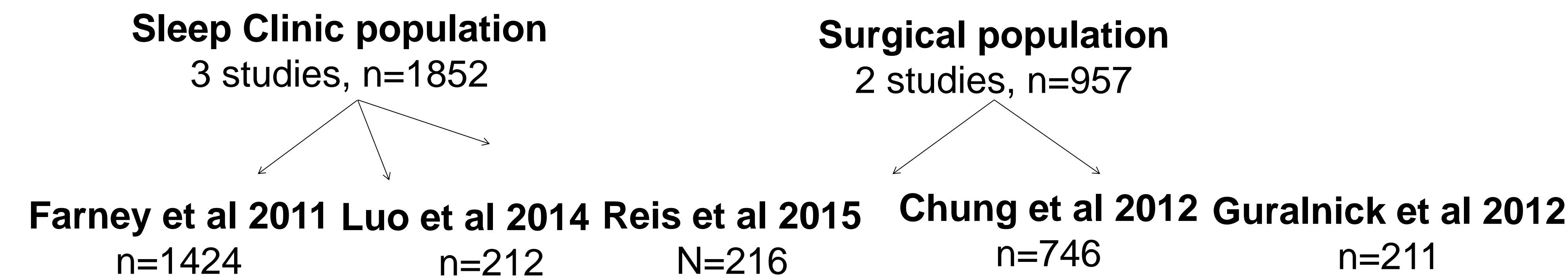


Figure 1: Flow chart for data collection and grouping of the studies

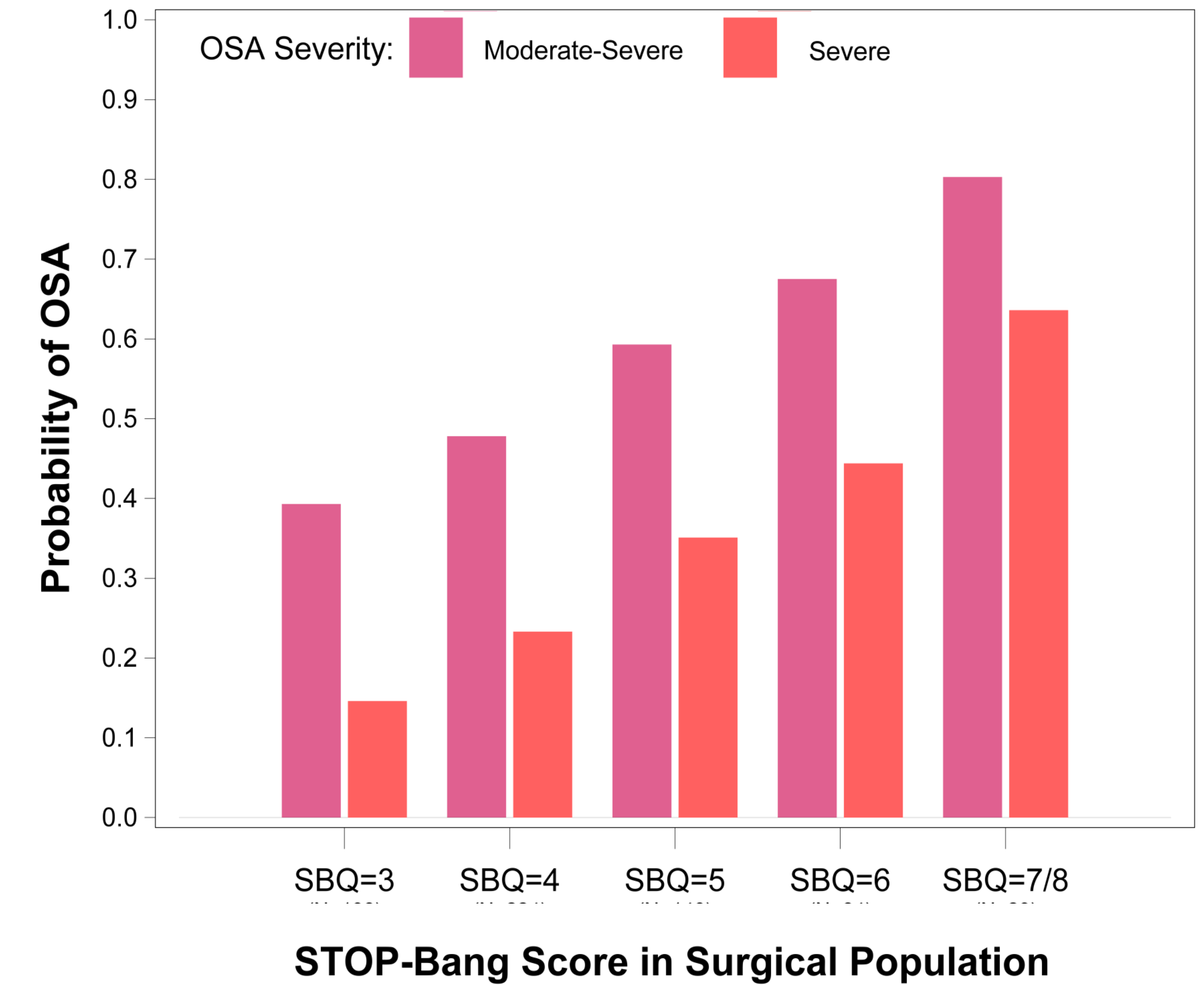
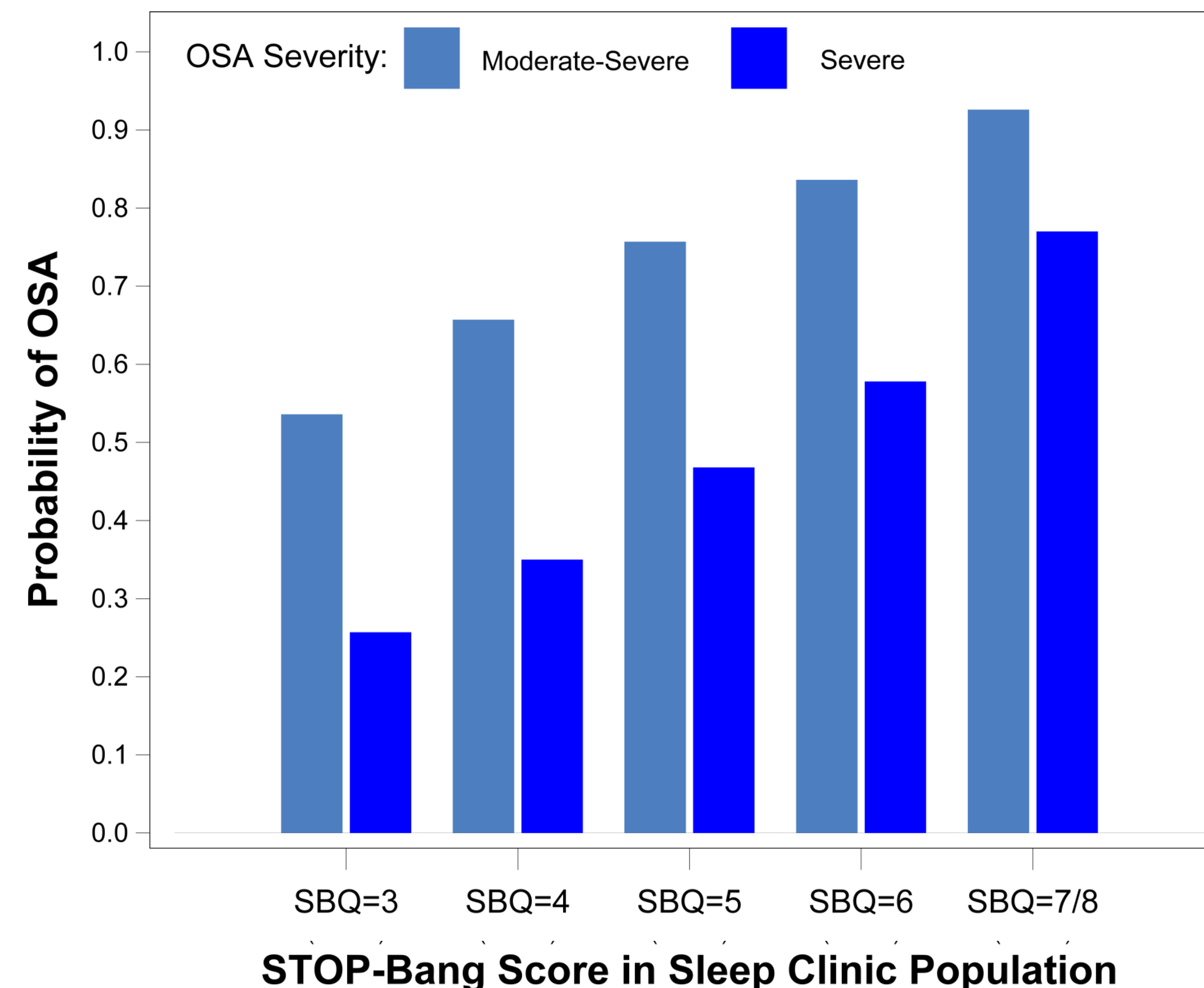


Figure 2 : The correlation between STOP-Bang score and the probability of OSA in Sleep Clinic and Surgical population

Summary & Conclusion

- In the sleep clinic and the surgical patients, the higher the STOP-Bang score, the more profound the increase in the probability of moderate-to-severe and severe OSA.

Reference

Chung et al Anesthesiology. 2008;108: 812–21.