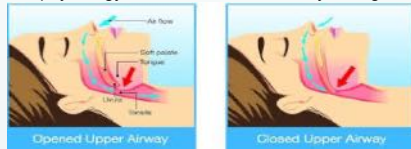# Obstructive Sleep Apnea (OSA) in Women in a Primary Care Practice

Patti Hill, DNP, RN, FNP-C.; Michelle Nelson, PhD, RN, FNP; Lisa Cranwell-Bruce, DNP, RN, FNP-C; Sandra Copeland, DNP, RN, FNP-C

Introduction

Pathophysiology of OSA: closure of airway during sleep

- OSA is a precursor to negative cardiovascular outcomes: stroke, heart attacks, hypertension, sudden death
- ~1 in 4 adults in the U.S. have OSA
- Estimate of cost of undiagnosed OSA in the U.S. ~ $26 billion
- Women are less likely to be diagnosed than men
- Women have worse CV outcomes than men due to late diagnoses

Purpose

Implement an assessment tool for women and men with co-morbidities of HTN and BMI ≥ 35 to consistently identify high-risk patients for OSA and refer for definitive diagnosis sleep study and treatment to prevent negative cardiovascular outcomes

Methodology

- Quasi-experimental, Quality Improvement Project

- Compared 12 weeks pre and post implementation # of sleep study referrals for OSA

Subjects convenience sample:
- Male or female
- Ages 18-75
- Co-morbidities obesity and hypertension
- Non-pregnant
- Own healthcare decisionmaker
- English-speaking
- Not already diagnosed OSA

What Do You Do if OSA Is Suspected: STOP-BANG

▶ STOP Questionnaire   ▶ BANG
- Snoring   - BMI >35
- Tiredness   - Age >50
- Observed you   - Neck circumference >40 cm
  stop breathing   (>15.7")
- Blood Pressure   - Gender male

High risk: Yes to ≥3 items → Refer for sleep testing

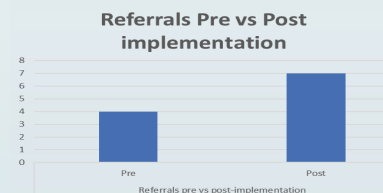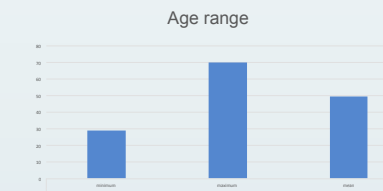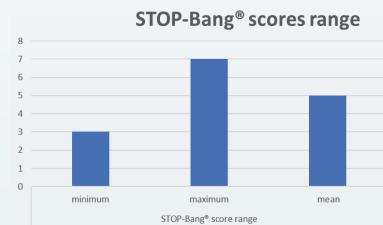Low risk OSA: 0-2
Intermediate risk OSA:: 3-4
High risk OSA: : 5-8

Results

n-=11

Cronbach's alpha for tool was .098

STOP-Bang® Scores 3 to 7; all pts. were intermediate to high risk for OSA.

STOP-Bang® scores range

Age range

Referrals Pre vs Post implementation

Increased overall referrals by 75%, increased women referrals by 50%

Conclusion

Clinical Significance:
- STOP-Bang® tool effective in identifying intermediate and high-risk patients for OSA sleep study in primary care setting

- Patients may be experiencing OSA symptoms before age 50

- Use of a consistent assessment tool increases identification of OSA risk

Limitations of the study:
- Small sample size made parametric testing impossible

- Conclusions must be interpreted with caution due to small sample size

- Provider compliance was a barrier

- Higher number of females were in the sample

References

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[2]Toronto Western Hospital, University Health Network. (2012). Screening: STOP-Bang Questionnaire [University Health Network, University of Toronto]. Retrieved from [3]www.stopbang.ca

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