

59. **OBSTRUCTIVE SLEEP APNEA IN AN INDIAN POPULATION: A CROSS SECTIONAL STUDY**Asmi Fatima Khan¹.¹Final-year Medical Student. HBT Medical College & Dr R. N. Cooper Hospital, Mumbai, India.

BACKGROUND: Obstructive sleep apnea (OSA) is a sleep-related breathing disorder, associated with impaired ventilation during sleep and disruption of sleep; which is defined on the basis of nocturnal and daytime symptoms as well as sleep study findings. It's associated with certain risk factors, namely – obesity, male sex, advancing age, hypertension, chronic consumption of alcohol and sedatives, along with positive family history. Any unexplained systemic or pulmonary hypertension, new-onset arrhythmias, polycythemia, personality and mood changes (including depression, anxiety), or cognitive defects are often linked to sleep disturbances and OSA. AIMS: Consequently, this study had 2 primary aims that were intended to be achieved by certain objectives: To screen an apparently healthy adult Indian population for prevalence of OSA amidst them, by – assessing the cardinal predisposing factors; and appraising extent of daytime sleepiness, fatigue and sleep status of volunteers. To significantly curb the incidence of OSA, by – counselling affected individuals to remodel their *modus vivendi*, and creating awareness amongst general public.

METHODS: Subsequent to procuring assent from the Institutional Ethics Committee, for this cross-sectional, time-based study (of 3 months), a multiple-choice questionnaire was responded by 1078 Indian adults. Considering the specific target population of each, this questionnaire was an amalgamation of the three standard, subjective, clinical tools, namely: Berlin Questionnaire (BQ), STOP-BANG Questionnaire (SBQ), Epworth Sleepiness Scale (ESS). Responses were thoroughly and discretely analyzed, using the elementary Microsoft 365 Excel, in tandem with IBM SPSS ver29. Suggested appropriate lifestyle changes to those seemingly affected with OSA, by reaching out through the affiliated email address (thesleepperils@gmail.com). OSA Awareness campaigns organized for the general public.

RESULTS: According to the data collected (margin of error $\pm 3\%$ at 95% confidence interval), 11.78% and 5.75% of the participants were found highly vulnerable to OSA, using the BQ and SBQ tools, respectively. ESS depicted that more than one-fourth of the participants are susceptible to OSA. In congruence with similar studies conducted across the globe, this research has also concluded that males are significantly more prone to OSA than females.

CONCLUSION: The public health impact of obstructive sleep apnea is escalating, particularly in developing countries like India, because of increasing urbanization leading to sedentary lifestyles, and its potential contribution to the worsening rates of cardiovascular disease, diabetes and other co-morbidities. Identifying and addressing lifestyle and behavioral factors as well as comorbidities that may be exacerbating OSA, by budding clinicians is a must for a comprehensive management of obstructive sleep apnea. Consequently, the ultimate aim of this study was to diagnose obstructive sleep apnea at an early stage; along with analyzing the national burden of the ailment.

Table. Prevalence of Obstructive Sleep Apnea (OSA) in an Indian Adult Population: Results and Risk Factors.

Participant s	ESS	BQ	SBQ		All 3 tools combined
	Excessive Daytime Sleepiness	Hig h Risk	High Risk	Interme diate Risk	Extreme Risk
		88 (12.54%)	54 (7.87%)	201 (29.30%)	27 (3.94%)
Males (n ₁ =686)	179 (26.09%)	83 (12.09%)	39 (5.68%)	8 (1.16%)	201 (29.30%)
Females (n ₂ =391)	103 (26.34%)	9 (2.30%)	25 (6.39%)	30 (7.67%)	10 (2.56%)
Total Sample (n ₀ =1078)	282 (26.16%)	127 (11.78%)	62 (5.75%)	231 (21.43%)	37 (3.43%)

Key words: Obstructive Sleep Apnea; Excessive Daytime Sleepiness; Unexplained Pulmonary Hypertension; Arrhythmias (Source: MeSH-NLM).