Assess Knowledge and Attitude of Saudi Population Regarding Obstructive Sleep Apnea

Ali Maeed Alshehri, MD* Noura Abdulrahman Alamri, ** Oroub Mohammed Amir Atif,** Maryam Abdu Majrashi, *** Waad Saber Alharthi, *** Reem Ibrahim Jaber Asiri, *** Mohammed Khalid M. Alshehri, ** Mujahid Shar D. Alshehri, ** Sarah Ibrahim Summan, ** Reem Thalib Hadhir Alalyani, ** Ubai Yousef Ahmed Baroum, *** Bashair Hassan Hazazi,**** Jawaher Hassan Ali Hazazi, ** Nada Abdullah Asiri, ** Shatha Aouda S Alshahrani, **

ABSTRACT

Study design: Cross sectional

Background:The most prevalent form of sleep apnea, obstructive sleep apnea (OSA), is defined by repeated episodes of total or partial obstruction of the upper airways while sleeping, despite attempts to breathe. It is also linked to a decrease in blood oxygen saturation. Common names for OSA that causes excessive daytime sleepiness include OSA syndrome and OSA-hypopnea syndrome.

Methods:Data for this cross-sectional study were gathered using a specially designed questionnaire. demographic information and questions regarding knowledge and attitude of Saudi population Regarding Obstructive Sleep Apnea and its risk factors in the questionnaire.The SPSS ver. 20 program was used to code and input the data once it had been collected in order to analyze descriptive statistics (mean, standard deviation, frequencies, and percentages were computed). chi-square test results were used to determine whether there were any significant differences.

Results:56.97% were males, 43.3% were females, 41.03 were students, 51.31 were married while 46.15% were singles, 31.33% had intermediate level of education,28.51% had high school, 31.28% were living in central while 21.9% were living eastern regions.43.03% had monthly income in between 5000 to 10000 SAR while 37.3% in between 10000 to 15000 SAR. 35% of the respondents agreed that Patient affected with OSA can present with fatigue only.

Conclusion:The current study revealed that the respondents' knowledge of OSA was inadequate. As a result, it is advised to apply various training approaches to increase respondents' understanding of OSA.

Keywords:Obstructive, Sleep, Apnea,knowledge

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* Associate Professor
Department of Otolaryngology
College of Medicine
King Khalid University
Abha, Saudi Arabia.
E-mail: amalsashety@gmail.com
** Medical Intern
** Medical Student
**** Medical Nurse

INTRODUCTION

The most prevalent form of sleep apnea, obstructive sleep apnea (OSA), is defined by repeated episodes of total or partial obstruction of the upper airways while sleeping, despite attempts to breathe. It is also linked to a decrease in blood oxygen saturation. Common names for OSA that causes excessive daytime sleepiness include OSA syndrome and OSA-hypopnea syndrome[1-3].

Major public health problems, sleep disorders are becoming more common both in Saudi Arabia and around the world. Obstructive sleep apnea (OSA) is very common in Saudi Arabia, with an estimated 9% prevalence in the general population and substantially higher rates in certain population subgroups including pregnant women. In general, men were more likely than women to have OSA. The rising obesity prevalence of roughly 35.6% in Saudi Arabians and the high incidence of OSA are related[4-6].

According to published data, 14% of men and 5% of women between the ages of 30 and 70 are predicted to have an AHI of less than 5, which is related with excessive daytime drowsiness. Recent statistics from Europe indicate that the illness may be more common in society when using modern diagnostic methods: a community-based Swiss research of over 2,000 patients identified moderate-severe OSA[7].

Its frequency in Saudi adult population is thought to be 8.8%. Previous survey-based studies on Saudis in their middle years shown that roughly 3 out of 10 males and 4 out of 10 women are at risk for OSA. OSA is still a condition that is underdiagnosed and undertreated despite the fact that it causes major consequences.An extensive range of OSA prevalence (apnea-hypopnea index, AHI 5), ranging from 9 to 38%, was described in a recent systematic analysis of 24 studies[8-10].

Subjects' knowledge, awareness, and attitudes concerning OSA are relevant to its diagnosis and treatment. Therefore, the purpose of the current study was to assess the knowledge, attitudes, and behaviors of people in the different regions of Saudi Arabia regarding OSA.

METHODS

Data for this cross-sectional study were gathered using a specially designed questionnaire. demographic information and questions regarding knowledge and attitude of Saudi population Regarding Obstructive Sleep Apneaand its risk factors in the questionnaire. The questionnaire was created following a series of conversations between the panel of experts, which included linguists, researchers, and subject specialists. The questionnaire's Cronbach alpha will be computed. Reliability and validity of the questionnaire will be computed. The study will carried out in Saudi Arabia's Aseer province.

The SPSS ver. 20 program was used to code and input the data once it had been collected in order to analyze descriptive statistics (mean, standard deviation, frequencies, and percentages were computed). chi-square test results were used to determine whether there were any significant differences at the 5% level of significance. We will also apply multivariate and univariate analysis to explore the risks factors. Before Interviewing, informed consents were asked from all samples then; all participants had the right not to participate in the study or to withdraw from the measurements prior to completion. The researcher explained the purpose to all respondents. This pre-measurement education is an important part. Confidentiality and privacy were guaranteed for all participants.

RESULTS

The Cronbach alpha of the questionnaire was 0.87. total respondents were 3900.

Table 1: Demographics

Variable	Categories	Freq.	%
Gender	Male	2222	56.97%
	Female	1678	43.03%
Profession	Student	1600	41.03%
	Teacher	223	5.72%
	Healthcare	334	8.56%
	Military sector	80	2.05%
	Unemployed	499	12.79%
	Private job	300	7.69%
	Outdoor	239	6.13%
	Other	625	16.03%
Marital status	Married	2001	51.31%
	Single	1800	46.15%
	Divorced	55	1.41%
	Widowed	44	1.13%
Education	Primary	670	17.18%
	Intermediate	1222	31.33%
	High school	1112	28.51%
	University	664	17.03%
	Post graduate	232	5.95%
Region	Central	1220	31.28%
	Southern	854	21.90%
	Western	789	20.23%
	Eastern	456	11.69%
	Northern	581	14.90%
Monthly Income	Less than 5000	436	11.18%
	5000 t0 10000	1678	43.03%
	10000 - 15000	1448	37.13%
	above 15000	38	0.97%

As per table 1, 56.97% were males, 43.3% were females, 41.03 were students, 51.31 were married while 46.15% were singles, 31.33% had intermediate level of education,28.51% had high school, 31.28% were living in central while 21.9% were living eastern regions.43.03% had monthly income in between 5000 to 10000 SAR while 37.3% in between 10000 to 15000 SAR

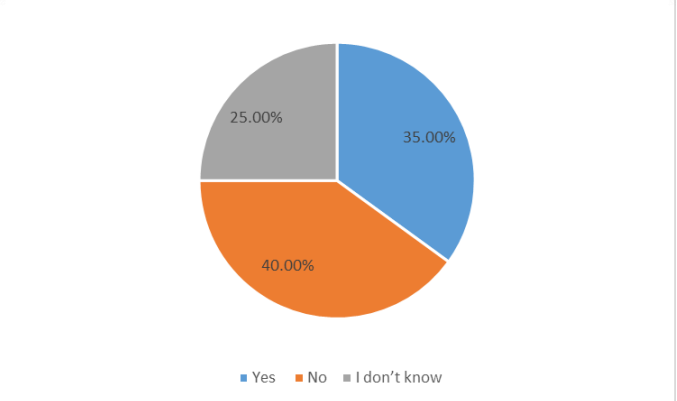

Figure 1: Patient affected with OSA can present with fatigue only

As per figure 1, 35% of the respondents agreed that Patient affected with OSA can present with fatigue only.

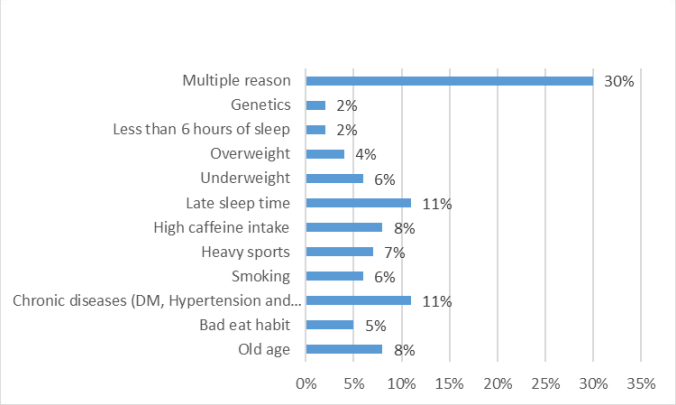

Figure 2: Risk factor of OSA

As per figure 2, 30% opted for multiple risk factors while late sleep time and chronic disease were considered as a major risk factors, 11% each.

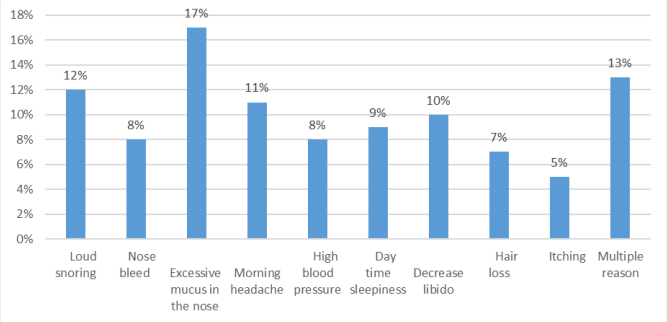

Figure 3: Symptom of OSA

Excessive mucus (17%) and morning headache (11%) were the major symptoms, depicted by figure 3.

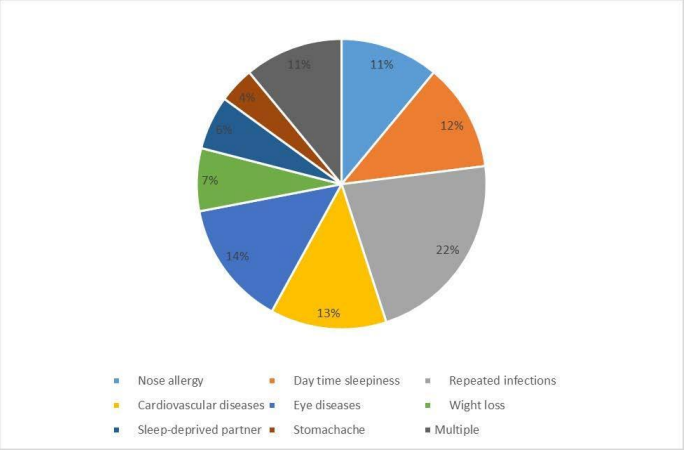

Figure 4: Complications

As per figure 4, daytime sleepiness, sleep deprived partner' and CVS were the major complications.

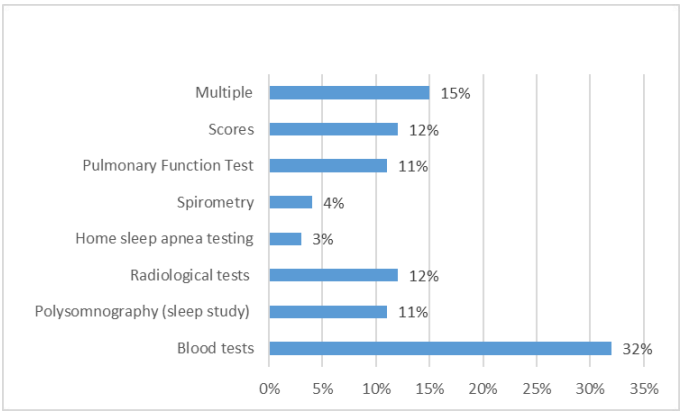

Figure 5: Diagnosis OSA

As per figure 5, blood tests (32%) were the major source of diagnosis, while scores 12%.

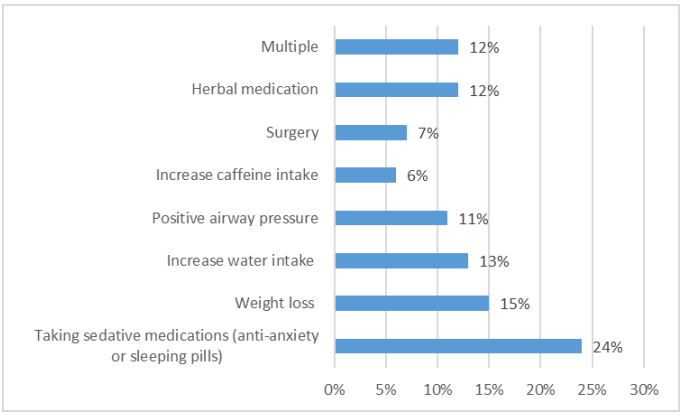

Figure 6: Treatment

As per figure 6, positive airway pressure, weight loss, taking seductive medication and herbal medicines were the major treatment options.

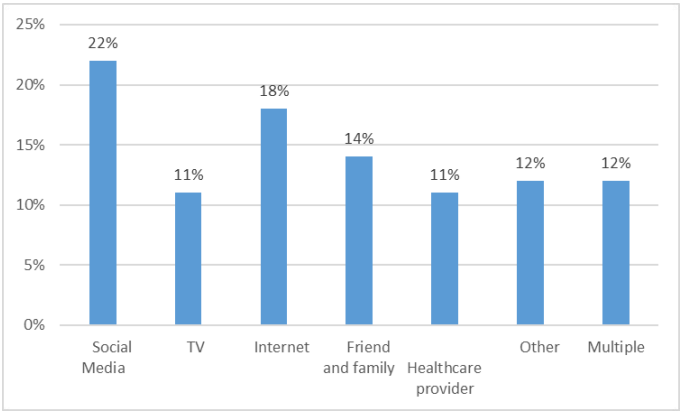

Figure 7: Source of information

As per figure social media was the major source of information (22%).

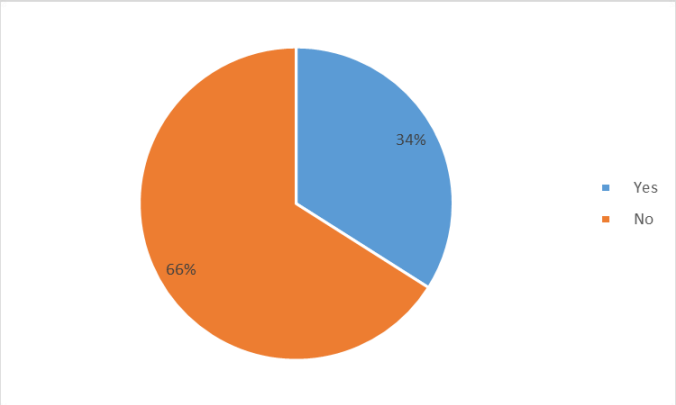

Figure 8: Family history
As per figure 8, 34% had a family history of OSA.

Table 2: Gender wise comparison regarding the severity of OSA

Gender wisecomparisons				
OSA is dangerous condition				
Gender		Yes	No	Total
Male	Yes	1777	445	2222
Female	No	1222	456	1678
P< 0.05				

As per table 2, we have observed significant differences while comparing gender with severity be lived regarding the OSA.

DISCUSSION

There is currently a rise in OSA awareness on a global scale. The goal of this study was to assess Saudi citizens' awareness of and attitudes regarding obstructive sleep apnea.This cross-sectional survey was conducted to find out how Saudi Arabia's general people felt about OSA in terms of knowledge, awareness, and attitudes. It may be possible to diagnose and treat OSA by looking into the existence or absence of risk factors, the primary public information sources on sleep and how to improve it, general attitudes toward OSA and its complications, and public awareness of the seriousness of these complications[11,12].

Numerous studies have evaluated people's awareness and knowledge of OSA; one in China found that 21.5% of the participants knew what OSA was. In our study we have observed in adults, the likelihood of having OSA rises with age.This age-related rise in prevalence may be caused by fat accumulation in the parapharynx, lengthening of the soft palate, and modifications to other parapharyngeal anatomical structures[13].

A study of the general population in the Lorraine region of France revealed that despite encouraging results regarding OSA symptoms, the general population showed limited awareness of its complications, which is one of the reasons why the population seeks healthcare services. Innovative educational programs must be launched to improve awareness of the disease's consequences among practitioners and the general public.

According to a study conducted in the USA, OSA is a dangerous condition that affects roughly 12% of individuals. The majority of these patients go misdiagnosed, placing a significant financial and medical burden on healthcare systems. The STOP-BANG score, which includes the indicators of snoring, fatigue, observed apnea, blood pressure, body mass index, age, neck circumference, and gender, has been shown to be an effective screening tool for patients who may have OSA[14].

\\Following an early diagnosis made using in-lab polysomnography or a home sleep apnea test, the proper therapy approach should be used. For individuals with moderate to severe OSA, continuous positive airway pressure therapy is still the preferred course of action[15].

CONCLUSION

The current study revealed that the respondents' knowledge of OSA was inadequate. As a result, it is advised to apply various training approaches to increase respondents' understanding of OSA. The study's findings further underline the necessity of incorporating suitable OSA education initiatives.More research is also required to determine how much the general public is aware of OSA and its problems.

Authorship Contribution: All authors share equal effort contribution towards (1) substantial contributions to conception and design, acquisition, analysis and interpretation of data; (2) drafting the article and revising it critically for important intellectual content; and (3) final approval of the manuscript version to be published. Yes.

Potential Conflicts of Interest: None

Competing Interest: None

Acceptance Date: 06-10-2023

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