

**THE PREVALENCE AND THE IMPACT OF INSOMNIA AMONG THE POPULATION
OF AL-DAWADMI REGION OF SAUDI ARABIA**Aljarah Saad Alqowiz¹, Abdullah Alsaidan¹, Sanjay Kumar Deshwali*¹ and Dr. Mohammad Arshad^{1*}

Department of Basic Sciences, College of Medicine, Aldawadmi, Shaqra University, Kingdom of Saudi Arabia.

***Corresponding Author: Dr. Mohammad Arshad and Dr. Sanjay Kumar Deshwali**

Department of Basic Sciences, College of Medicine, Aldawadmi, Shaqra University, Kingdom of Saudi Arabia.

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ABSTRACT

The sleeping disorder, Insomnia is the common complaint in adults because of several factors. However, epidemiologic studies targeting insomnia and its effect among Al- Dawadmi population, Kingdom of Saudi Arabia have never been reported. We performed an epidemiologic survey based study to understand the status of insomnia among Al- Dawadmi population, Kingdom of Saudi Arabia by an online questionnaire on 850 subjects (201 men and 649 women) using a random sampling method. More than one third (n=317, 34.5%) of the 850 subjects complained of chronic insomnia, with the prevalence being significantly higher in women (38.5%) than in men (33.3%) and (n:356, 38.5%) is complained of intermittent insomnia being significantly higher in women (43.8%) than in men (35.8%). The finding stated that insomnia is a common complaint in dawadmi city, and its prevalence in the young females is higher than in males.

KEYWORDS: Prevalence & effect of insomnia, online survey, Al-Dawadmi Population.**INTRODUCTION**

Insomnia, the sleeping disorder is defined as the condition of difficulty in sleeping or the sleeping with poor quality that leads to the weakness, memory disorder, disturbance in mood, reduced quality of life etc.^[1-2] In older adults insomnia is acting as the number one sleeping disorder and can lead to the significant impairment, stress, distress that happens generally for one month.^[3] The prevalence of insomnia has been observed to possess the direct proportionality with the age according to the many epidemiological reports, it has been also reported that about twenty percent of the persons at the age of 65 years and older were found to exhibit the insomnia.^[4-5] The prevalence of insomnia and its impact on the population has been widely investigated by the researcher globally.^[6-10] Variety of studies has been carried out in the kingdom of Saudi Arabia aiming insomnia such as Al-Jahadi HH, et. al. reported the prevalence of insomnia in chronic renal patients on dialysis and observed that it is very common in the dialysis patients.^[11] Another study on obstructive sleep Apnea according to the gender difference was performed by Alotair, H et. al.^[12] Wali, S. O. et al. presented a report on sleep disorder in Saudi health care workers and concluded that this the common issue in the community but weakly recognized.^[13] Merdad, RA, et al. targeted the responsible sleep habits in adolescents of the kingdom and concentrated on the schedule and the pattern of sleeping and revealed that the adolescent of the kingdom have poor sleep cycle comparative to other countries.^[14] Another study to understand the impact of age and

gender on the prevalence of insomnia was performed by Ahmed AE, et al. and concluded that it is more prevalent in the female and the older aged population of the kingdom.^[15] Similar study was carried out by Gwiria M.H. Satti et. al. aiming the prevalence of sleeping issues on sleeping quality and the academic state.^[16] National and international importance of the studies carried out targeting the insomnia and its different aspects prompted us to perform a questionnaire based survey to understand the prevalence level of insomnia and its impact on the Al-Dawadmi region population.

MATERIALS AND METHODS**Study design**

The study was performed using an online survey in College of Medicine, Dawadmi, Shaqra University in Riyadh region, Kingdom of Saudi Arabia on the subjects collected from dawadmi. The data for this research comes from an online survey which was done on random sampling of average peoples with insomnia between 20 years old to 50 years. The survey started on October 5, 2018. All survey questionnaires were completed before releasing the survey. Final result was collected on November 5, 2018.

Sample size

Participants: The samples of Dawadmi region were the target population of this study. A representative sample comprising 850 subjects aged more than 20 to less than 50 years was constituted from 850 online questionnaire according to a simple random sampling method based on

sex, age, education level, and place of residence, behaviour and sleep hours, occupation (working after midnight).

Inclusive Criteria

1. Peoples residing in Dawadmi
2. Both male and female above 20 yrs and below 50 years was taken for study

Exclusive Criteria

1. Peoples of Dawadmi residing outside dawadmi
2. Peoples of Age below 20 yrs and above 50 yrs
3. Peoples taking drugs for insomnia
4. Peoples undergoing treatment for any neurological diseases.

DATA COLLECTION

Self administered questions on online survey, was published on October 5, 2018. We divided the questionnaire under four categories

- 1- Awareness about insomnia: we asked about definition, relation with pathological, psychological disorder and drugs therapy, CPT for insomnia.
- 2- Sleeping status: we asked about sleep hours, naps and quality of sleep
- 3- Incidence of insomnia : we asked affected person about effect of insomnia on them, their management of insomnia, if they have a history of certain disease
- 4- Insomnia and Physiological change in female

This survey was conducted by group of medical students. Data were collected using a Google forms for online questionnaire

Statistical analysis

All of the analyses were performed using IBM SPSS Statistics 25.0. The sampling error was ± 1.39 points for a 95% confidence interval. We analyzed the data using the chi-square test for categorical data.

RESULTS

The recent observation aimed the 850 subjects among Al-Dawadmi population on the basis of a questionnaire based survey. More than one third (n=317, 34.5%) of the 850 subjects complained of chronic insomnia, with the prevalence being significantly higher in women (38.5%) than in men (33.3%) and (n=356, 38.5%) is complained of intermittent insomnia being significantly higher in women (43.8%) than in men (35.8%) (Figure- 1a & b). The relation between age and prevalence of insomnia in this study being higher in those aged 18-24 years (n:298, 32.4%) than in those with other ages (Figure- 2). Awareness regarding insomnia placing some question like lack of sleep hours (n: 57, 6.7%), poor sleeping quality (n:74, 8.7%), difficulty to sleep (n: 269, 31.6%), all mentioned (n=424, 49.9%), people who don't know (26, 3.12%) and the behaviour has been considered to be the major cause of insomnia and response to the questionnaire included (n=676, 79.5%) responded yes, (n=101, 11.9%) responded No, (n=73, 8.6%) responded

don't know. The lifestyle for the subjects suffering from insomnia (n=673, 79.18%) was questioned that what they do before sleeping the responses were received as follows- electronics is most common (n= 365, 42.9%) followed by over thinking (n=235, 27.6%) and other behaviour doesn't have significant effect (Figure- 3).

FIGURES

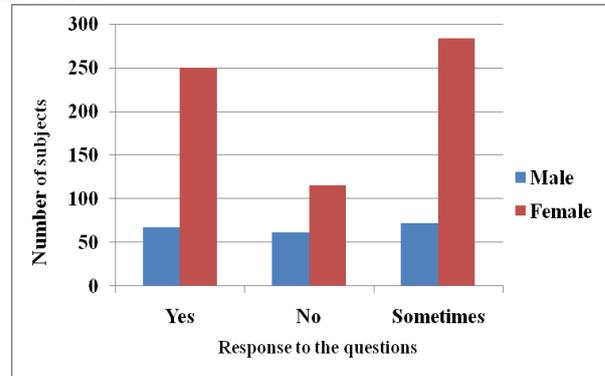


Figure 1a: Representing the response of questions In terms of numbers of subject like Do you suffer from sleep disorder ? (difficulty to sleep, lack of sleep, intermittent sleep).

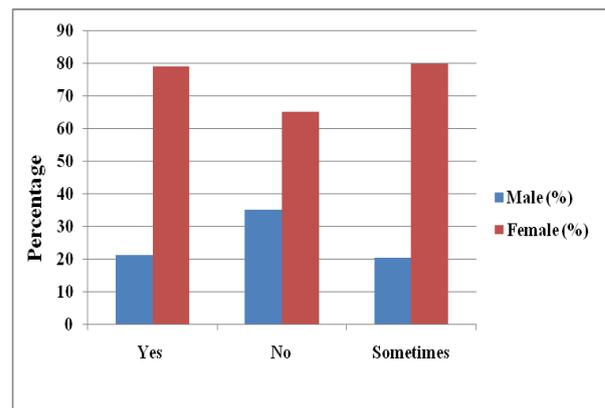


Figure 1b: Representing the response of questions In terms of percentage like Do you suffer from sleep disorder? (difficulty to sleep, lack of sleep, intermittent sleep).

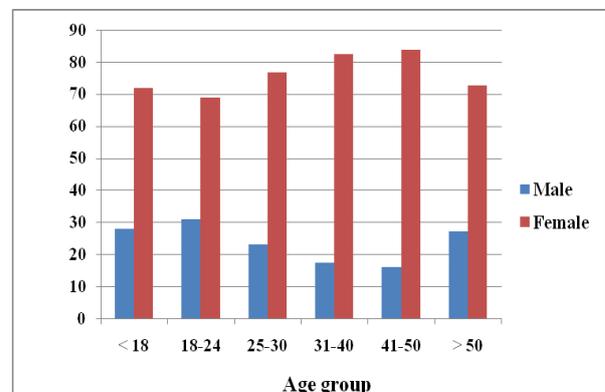


Figure 2: Representing the response of questions In terms of age groups like Do you suffer from sleep disorder? (difficulty to sleep, lack of sleep, intermittent sleep).

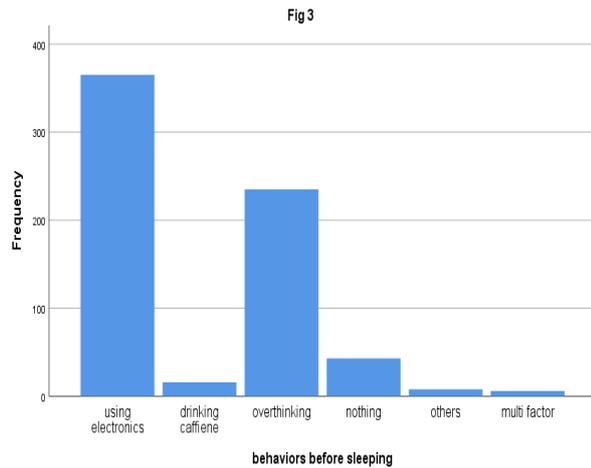


Figure 3: Representing the response of questions In terms of behaviour before sleeping.

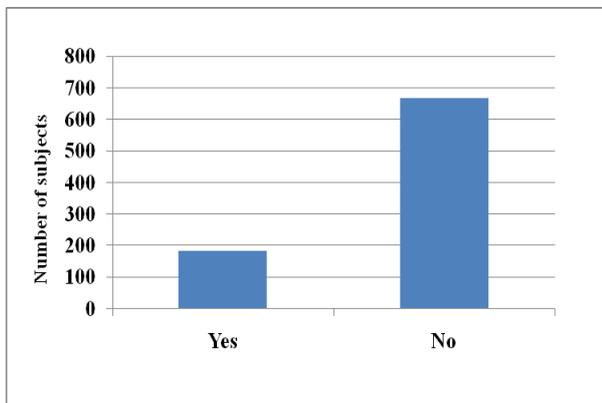


Figure 4: Representing the status of Response to the question about the status of CBT.

DISCUSSION

Our study aimed to understand the relationship and effect of the number of sleeping hours for the suffering from insomnia with respect to age, sex, work, difficulty in sleeping, use of drugs or medication and behaviours. The investigation also included the mental, physical conditions in women e.g. (pregnancy and menopause) with insomnia. The findings revealed that the major cause of these patients was using electronics, that is followed by over thinking. Among the participants (n= 850) in the study more than half of them (n= 470, 55.3%) was sleeping 4 to 6 hours a day followed by people who sleep 7 to 9 hours (n= 260, 30.6%) then people who sleep 10 hours or more (n= 78, 9.2%) and people who sleep less than 4 hours was (n= 42, 4.9%). The impact on the mental status if they experienced any kind of depression, anger, anxiety shows that mood disturbances is a typical symptom of insomnia. In our sample there is weak relation between insomnia and specific pathological condition, such as heart disease (n= 48, 7.14%), diabetes mellites (n= 38, 5.65%) and hypertension (n= 34, 5.06%). But there is strong relation between insomnia and psychological condition such as anxiety, depression. People who have insomnia from contentious anxiety (n= 213, 31.69%) and who suffer

from insomnia due to intermittent anxiety (n= 349, 51.93%). Depression results showed strong relation with insomnia but its less than anxiety. People who have insomnia from contentious depression (n= 59, 8.77%) and who affected by insomnia due to intermittent depression (n= 207, 30.8%).^[11] When We ask people about their pharmacological choices for managing insomnia, who use analgesics to manage insomnia (n= 131, 16.49%), who used antihistamines (n= 23, 3.42%) other drugs such as melatonin and anti-depressant is used by a few of people, on the other hand large portion in our sample were don't use drug (n= 506, 75.30%). Among the participants, majorities were using analgesics for pain relieving which promote sleep, or they use analgesics that combined with anti-histamine such as Panadol-night which lead to drowsiness and sleeping. When we measure awareness of people about cognitive behaviour therapy (CBT) to manage insomnia we found that large number of people don't have the knowledge about it (n= 667, 78.5%) where a few people have heard about it (n= 183, 21.5), Figure- 4. Depending in our study the awareness of people that some drugs can cause insomnia was high (n= 622, 73.17%) and people who think that drugs cannot cause negative influence on sleep were (n= 61, 7.2%). This indicate that community understanding about drug related insomnia is significantly high.

CONCLUSION

To understand the status of insomnia and its impact among Al- Dawadmi population, Kingdom of Saudi Arabia, an epidemiologic survey based study was performed by an online questionnaire on 850 subjects (201 men and 649 women) using a random sampling method. The study aimed some important questions related to the status of insomnia, mental status, behaviour before sleeping and knowledge about cognitive behaviour therapy to understand their interrelationships. The results revealed that insomnia is a common complaint in dawadmi city, and its prevalence in the young females is higher than in males. It was observed that the use of electronics, over thinking, depression, anxiety and anger are strongly related to the insomnia while the heart disease and hypertension has not specific relationship with insomnia. On the other hand the understanding of the subjects related to the drug related insomnia was observed significantly high.

Declaration: The Authors have no conflict of interests.

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