



SLEEP HYGIENE PRACTICES AND SATISFACTION LEVEL OF SLEEP PATTERN AMONG ADULTS (25-59 YEARS) IN URBAN AREA: A CROSS-SECTIONAL STUDY

Community Medicine

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ABSTRACT

Background: Sleep, a basic human need, is essential for preserving physical and mental health. Sleep hygiene refers to the practices and habits that help individuals establish a consistent sleep schedule, create a sleep-conducive environment, and avoid stimulating activities before bedtime. **Objectives:** 1) To assess the sleep hygiene practices/behaviors among adults aged 25-59 years. 2) To determine the satisfaction level with sleep patterns among adults. **Material And Methods:** The cross-sectional study was conducted; among adults aged 25 to 59 years residing under the area covered by Urban Health Training Centre of Government medical college, Meerut, Uttar Pradesh. **Results:** In this study, 300 participants were included. In terms of sleep hygiene, 34.0% of participants used mobile phones, 17.7% read books, and 58.3% reported feeling stressed or anxious before sleep. 42.0% of participants take daytime nap, 27.0% slept at different times, 55.3% slept in uncomfortable bedrooms due to factors like noise disturbance (42.7%), damp sleeping rooms (41.6%), or sleeping in a light bedroom (15.7%). 27.0% slept at different times during the past month. Watching TV before sleep was reported by 32.0% and 13.3% listened to music before sleep. 21.7% were satisfied with their sleep pattern, and 8.3% were very dissatisfied with their sleep pattern. **Conclusion:** Out of the 300 participants majority of the participants were moderately satisfied with their sleep patterns.

KEYWORDS

Sleep hygiene, Stress, Anxiety, sleep pattern

INTRODUCTION

Sleep health is a multidimensional construct that includes adequate duration, quality, and appropriately timed sleep that may be influenced by various biological and environmental factors. We are aware of many different states of brain activity, such as sleep, wakefulness, and extreme excitement.^[1]

Sleep hygiene is described as practicing behaviors that facilitate sleep and avoiding behaviors that interfere with sleep.^[2] Sleep hygiene practices have been effective in improving sleep quantity and quality in a broad range of individuals experiencing sleep disturbances, including young children, adolescents and adults (although often in conjunction with other therapies/treatments).^[3,4,5] Sleep hygiene recommendations include maintaining a consistent sleep schedule, avoiding day-time naps, having a healthy diet, refraining from stimulant substances such as caffeine, nicotine and alcohol, engaging in regular exercise, participating in relaxing bedtime activities (eg, reading or listening to music) and having a sleep environment that is dark, quiet and cool.^[6] This study focuses on assessing sleep hygiene practices and sleep satisfaction among adults aged 25-59 years in urban Meerut, providing insights into the prevalence of poor sleep habits.

Objectives:

- To assess the sleep hygiene practices among adults aged 25-59 years.
- To determine the satisfaction level of sleep pattern among adults.

MATERIAL & METHODS:

Study Type & Design: Community based cross-sectional study

Study Population: Adult population aged 25 to 59 years.

Study Duration: The study period was conducted for a period of 6 months from July 2023-December 2023.

Sample Size: The sample size of 300 was estimated using the prevalence of insomnia in West Bengal's urban population, which was 15.4%^[7] among adults with absolute precision 5% at 95% confidence interval, using the following formula: $n = DEFF \times 1.96^2 \times p \times q / d^2$ (DEFF = Design Effect = 1.5)

Sampling Technique: Two stage cluster sampling (In the first stage, wards were randomly selected to represent the primary sampling units. In the second stage, study participants were randomly selected

proportionately from each locality within the chosen wards).

Inclusion Criteria:

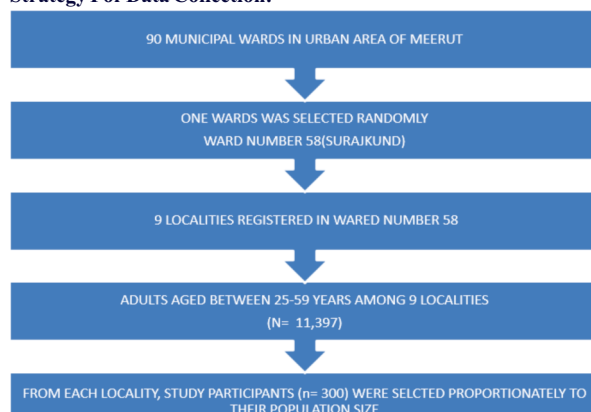
- Adults aged between 25 to 59 years were eligible to participate in the study.
- Participants who provided informed consent to take part in the research were included.

Exclusion Criteria:

- Those who did not give consent.
- Individuals diagnosed with major psychiatric illnesses and those engaged in regular shift work were excluded from the study.

Study Tool: Pre-designed Pre-tested Semi-structured Questionnaire for socio-demographic details and sleep hygiene practices & Insomnia Severity Index for satisfaction level of sleep pattern.

Strategy For Data Collection:



From each locality the random house allocation was done by pencil/pen tip drop method to start the survey. From the centre of the selected locality, pencil/pen was dropped and the house in the corresponding direction towards the tip of pencil/pen was selected as the first house for survey. Then house to house survey was done picking all the adults aged between 25 to 59 year in the adjacent houses towards right of the first house till the required sample of adults aged

between 25 to 59 year for that locality were covered. Detailed information was collected and recorded on a predesigned questionnaire. The data was collected and tabulated to obtain the result.

Ethical Issues: The study was approved by the ethical committee of the institution.

Informed Consent: Informed written consent was taken from all the participants.

RESULTS

Table 1: Distribution Of Study Participants According To Their Socio-demographic Factors

Variables		Frequency (n = 300)	Percentage (%)
Age(in years)	25-35	119	39.7
	35-45	70	23.3
	45-55	63	21.0
	55-59	48	16.0
Sex	Male	128	42.7
	Female	172	57.3
Occupation	Unemployed	39	13.0
	Employed	140	46.7
	Housewife	121	40.3
Marital Status	Unmarried	55	18.3
	Married	212	70.7
	Divorced/ Separate/	33	11.0
	Widow/Widower		
Type of family	Nuclear	154	51.3
	Joint	99	33.0
	3 rd Generation	47	15.7
Socio-economic status (Modified kuppusswamy scale)	Upper class (I)	8	2.7
	Upper middle (II)	54	18.0
	Lower middle (III)	98	32.7
	Upper lower (IV)	121	40.3
	Lower (V)	19	6.3

Table 1 shows that the maximum number of participants were found in 25–35 years of age (39.7%), followed by 23.3% in 35–45 years and 45–55 years of age (21.0%), while the minimum number of participants (16.0%) were found in 55–59 years. Among the 300 participants, 42.7% were males and 57.3% were females. 46.7% were employed, 40.3% were housewives, and 13.0% were unemployed. The majority of participants 70.7% were married, 18.3% were unmarried, and 11.0% were divorced or separate or widow or widower. Nuclear family was found to be more 51.3% followed by Joint family 33.0% followed by 3rd generation family 15.7%. According to the modified Kuppusswamy socio-economic scale, 2.7%, 18.0%, 32.7%, 40.3% and 6.3% belonged to the upper class (I), upper middle class (II), lower middle class (III), upper lower class (IV), and lower class (V), respectively.

Table 2: Distribution of study participants according to sleep hygiene behaviors

S. no.	Sleep hygiene (n = 300)	Yes No. (%)	No No. (%)
1.	Take a nap during daytime	126 42.0	174 58.0
2.	Smoke within 2 hours before bedtime	59 19.7	241 80.3
3.	Eat heavy night meals near the bedtime (within 1 hour)	72 24.0	228 76.0
4.	Perform physical activities within 2 hours before sleep	22 7.3	278 92.7
5.	Feel stressed/anxiety/fear before sleep	175 58.3	125 41.7
6.	Sleep in uncomfortable bedroom (temperature, light, noise)	166 55.3	134 44.7
7.	Sleep at different time during the past month	81 27.0	219 73.0
8.	Use mobile phone before sleep	102 34.0	198 66.0
9.	Read books before sleep	53 17.7	247 82.3
10.	Watch TV before sleep	96 32.0	204 68.0
11.	Listen to music before sleep	4 13.3	260 86.7

The table 2 shows that among 300 individuals, 42.0% reported taking naps during the day, 19.7% smoked within 2 hours before bedtime, and 24.0% ate heavy night meals near bedtime (within 1 hour). Only 7.3%

performed physical activities within 2 hours before sleep; 58.3% reported feeling stressed or anxious before sleep. Regarding sleep environment, 55.3% slept in uncomfortable bedrooms due to factors like noise disturbance (42.7%), damp sleeping rooms (41.6%), or sleeping in a light bedroom (15.7%). 27.0% slept at different times during the past month. In terms of pre-sleep activities, 34.0% used mobile phones before sleep. Reading books before sleep was reported by 17.7% of individuals. Watching TV before sleep was reported by 32.0% and 13.3% listened to music before sleep.

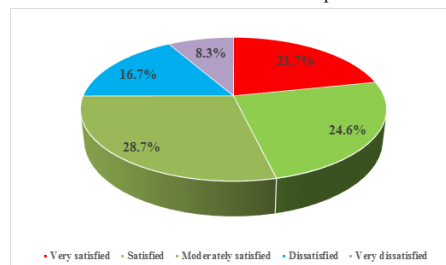


Fig.1: Distribution of study participants by their sleep Satisfaction level

As observed in figure 1, the majority of participants (28.7%) were moderately, 24.6% were satisfied, and 21.7% were very satisfied with their sleep pattern. Meanwhile, 16.7% of the participants were dissatisfied and 8.3% were very dissatisfied with their sleep pattern.

DISCUSSION:

By good sleep hygiene behaviors, we can improve the quality of our sleep. In the present study, we observed that 42.0% reported taking naps during the day, only 19.7% smoked, and 24.0% ate heavy night meals near bedtime (within 1 hour), 58.3% reported feeling stressed or anxious, and 17.7% read before sleep. 55.3% slept in uncomfortable bedrooms due to factors like noise disturbance (42.7%) during sleep in damp sleeping rooms (41.6%) or sleeping in a light bedroom (15.7%). In terms of pre-sleep activities, 34.0% used mobile phones, and 32.0% watched TV before sleep. Kumar A et al. (2022)^[8] evaluated the sleep patterns and habits among the adult population (18–60 years) of Shimla city and revealed that 76.5% used mobiles before bed, 31.6% watched TV, and 23.0% read; 58.3% of participants slept within 2 hours after eating; 38.2% of participants had the habit of daytime sleeping; and 63.3% of participants had problems with dreams while sleeping. Sleep-related issues included noise sensitivity 45.8%, snoring 25.5%, and interrupted sleep 29.2%.

Among the 300 participants, 21.7% reported being very satisfied with their sleep. Meanwhile, 16.7% of the participants were dissatisfied, and 8.3% were very dissatisfied. JA Pritam et al. (2023)^[9] conducted a study among middle-aged (35–54 years) individuals in Khorda, within the Bhubaneswar district, and reported slightly different results: 31.4% of participants were very satisfied with their sleep pattern, while 62.8% were very dissatisfied, 19.4% were satisfied, 18.5% were moderately satisfied, and 24.3% were dissatisfied with their sleep pattern. Meanwhile, a study done by Morin CM et al. (2011)^[10] among adults aged 18 years and older in Canada reported that 47.5% of participants were dissatisfied, 43.7% were very dissatisfied, 6.3% were neutral, 1.9% were satisfied, and 0.6% were very satisfied.

CONCLUSION:

In the study, 42% reported daytime naps, 19.7% smoked near bedtime, and 24% ate heavy meals within an hour of sleep. Only 7.3% exercised close to bedtime, while 58.3% experienced stress or anxiety before sleeping. Environmental discomfort was noted by 55.3%, with noise (42.7%), dampness (41.6%), or excessive light (15.7%) being common issues. Irregular sleep times were reported by 27%. Pre-sleep activities included mobile use (34%), TV watching (32%), reading (17.7%), and listening to music (13.3%). Almost 75.0% of the participants were very satisfied to moderately satisfied with their sleep, while 25.0% of the participants were dissatisfied to very dissatisfied with their sleep with their sleep pattern.

Recommendations:

This highlights the need for primary care providers, specialists, and family medicine physicians to screen at the initial point of care and to encourage lifestyle changes in them through the provision of sleep hygiene education. Improve sleep hygiene practices by educating on

the impact of caffeine and nicotine on sleep and encouraging a reduction in tea and coffee consumption and smoking, particularly in the hours leading up to bedtime. Keep the phone away before bedtime and use blue light-filtering glasses, as blue light from screens can suppress melatonin production. Designate or make a schedule of phone-free hours or days to reduce overall screen time, replace phone time with reading, meditation, or deep breathing before bed instead of using a phone, limit screen time before bed, and create a strict bedtime routine.

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Nil

Conflict Of Interest

There is no conflict of interest

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