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A STUDY TO ASSESS THE LEVEL OF INSOMNIA AND ITS ASSOCIATED FACTORS AMONG ADULTS IN SELECTED AREAS OF PALLITHOTTAM, KOLLAM

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ABSTRACT

The research project undertaken was **"**A study to assess the level of insomnia and its associated factors among adults in selected areas at Pallithottam, Kollam**".** Objectives of the study were to find out the level of insomnia among adults and to assess the associated factors of insomnia among adults. Non-experimental research design was adopted for this study. The study sample was selected by convenience sampling technique. The tool used for the data collection consisted of socio-demographic proforma, standardized questionnaire to assess the level of insomnia and a self structured questionnaire to assess the associated factors of insomnia. Basic introduction of the study was given to the subjects and data was collected from 300 samples using self administrated tool. The analysis of data was based on the objective of the study using descriptive and inferential statistics. The findings of the present study revealed that 52.33 % of sample had no clinically significant insomnia, 24% had mild insomnia, 13.66% had moderate insomnia and 10% had severe insomnia. The study showed that there was significant association between education level of the participant. There was no significant association between other demographic variables like age, sex and job status. The study also showed that there is significant association between level of insomnia and pain, use of mobile phone, consumption of coffee, tea, spicy and fried food before bed time, noisy sleeping environment, job stress, intake of antihypertensive drugs and emotional factors like stress and anxiety. There was no significant association between level of insomnia and physical factors like chronic diseases, dyspnea, any other physical deformities, use of electronic devices like T.V and computer, consumption of soft drinks, fatty food, taking day time naps, use of alcohol, cigarettes and cannabis, taking of regular medicines like hypoglycemic and thyroid medicines and emotional factors like loss of loved ones.

KEYWORDS: Assess, level, insomnia, structured questionnaire.

INTRODUCTION

Sleep problems are one of the most common complaints for adults in primary care. They are associated with a decline in overall health status and perception of poor health and can have negative personal and social consequences. Individuals with sleep problems also report higher levels of anxiety, physical pain and discomfort, and cognitive deficiencies. Conducting research studies on insomnia is imperative for addressing the multifaceted challenges posed by this prevalent sleep disorder. By delving into the underlying causes, researchers can unravel the intricate interplay of genetic, environmental, and lifestyle factors contributing to insomnia.

OBJECTIVES

1. To find out the level of insomnia among adults
2. To assess the associated factors of insomnia among adults.

METHODOLOGY

Quantitative approach with cross-sectional research design was used in the study. The study was conducted in selected areas of Pallithottam, Kollam. The target population was 300 adults residing at Pallithottam. Non-probability convenience sampling technique was used to collect the data. Formal permission was taken by institutional ethics committee and consent from the participants and data were collected through standardized questionnaire and self-structured questionnaire. The collected data were analyzed using descriptive and inferential statistics.

1. Approach: Quantitative approach
2. Design: Cross-sectional research design
3. Sample: Adults of (20-59yrs) selected areas of Pallithottam, Kollam
4. Sampling technique: Non-probability convenience sampling
5. Setting: Selected areas of Pallithottam, Kollam

6. Data collection method: Standardized questionnaire and self-structured questionnaire

INCLUSION CRITERIA
1. Adults who are in the age group 20-59.
2. Adults who are living at selected community area, Kollam.

EXCLUSION CRITERIA
1. Adults who are not available at the time of data collection.
2. Adults who are not able to read or write.

DATA COLLECTION PROESS
We communicated the purpose and significance of the study with participants in advance and then data collection process was scheduled. Data were collected through standardized questionnaire and self-structured questionnaire.

ETHICAL APPROVAL AND INFORMED CONSENT
Formal permission received from the institutional ethics committee. Formal permission received from the college authority and consent letter from the participants.

TOOL
Section A: Socio-demographic proforma.
It includes information regarding demographic variables such as age, sex, education, occupation and duration of sleep.
Section B: Standardized questionnaire to assess the level of insomnia
Section C: Self-structured questionnaire to assess the associated factors.

RELIABILITY
Reliability of questionnaire was assessed by test-retest method and the value was found reliable (0.72).

ANALYSIS
Descriptive analysis
1. Percentage distribution of participants as per demographic proforma.
2. Frequency and percentage distribution of level of insomnia.

Inferential analysis
1. Association between demographic variables and level of insomnia.
2. Association between associated factors and level of insomnia.

RESULT
The result was computed under section I, II and III.

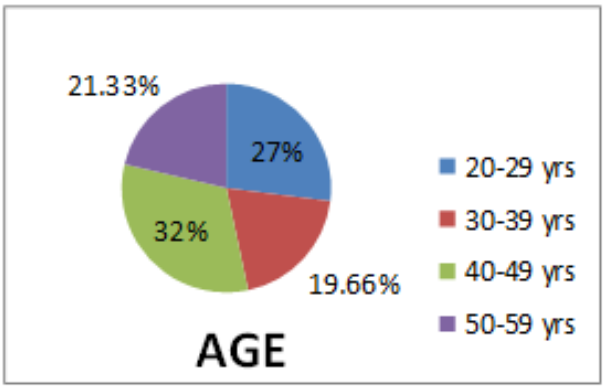
1. Description of demographic variables
This section deals with the sample characteristics under study. In the present study the demographic data revealed that 27% of the adults belonged to the age of 20-29 yrs, 19.66% of the adults belonged to the age of 30-39yrs, 32% of the adults belonged to the age of 40-49yrs and 21.33% belonged to the age of 50-59yrs. 56.66% of adults were females and 43.33% of adults were males. Regarding their source of information, it was found that 45.33% of adults had primary education, 38% had secondary education, 10.66% were graduated and 6% were post-graduated. Regarding occupation 22.66% were private employees, 3% were government employees, 21% were self-employees and 53.33% were jobless. Among adults, 13.33% had an average of $\leq$ 3hr sleep, 39.66% had an average of 4-6hr sleep, the same percentage had an average of 7-9 sleep and 7.33% had an average of >9hr sleep.

Description of insomnia severity index
The present study revealed that a majority of adults (52.33%) had non-significant insomnia, 24% of adults had mild insomnia, 13.66% had moderate level of insomnia and only 10% had severe insomnia.

Description of associated factors
The present study revealed that 42% of adults had physical difficulties that affect sleep, 59.33% had habit of using electronic devices before sleep, 16% had habit of consuming caffeine contained drinks before sleep, 25% had habit of consuming heavy foods before sleep, 53.33% had habit of sleeping during daytime, 23.66% had habit of substance use before sleep, 23% felt that their work affects quality of sleep, 20.66% were unsatisfied with their sleeping atmosphere, 33% were taking certain drugs daily and 27% had some other factors that affect sleep.

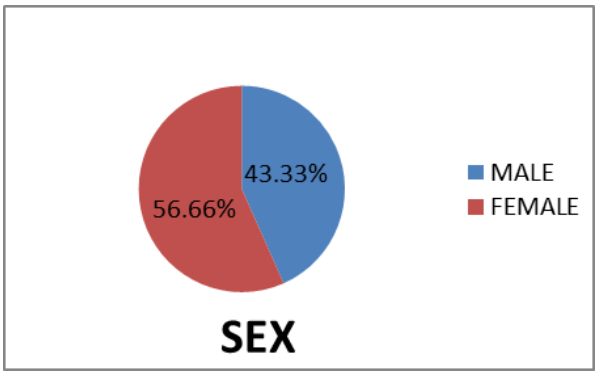
Association between level of insomnia and associated factors
The association we found out by using Chi square test. It was inferred that the present study showed that there was significant association between insomnia and associated factors such as pain, mobile, tea, coffee, spicy food, fried food, work stress, noise, anti-hypertensive drugs, stress and anxiety (Calculated value greater than table value at 0.05 level of significance) and there was no significant association between insomnia and other factors (Calculated value smaller than table value).

Percentage distribution of participants as per demographic variables
Percentage wise distribution of the samples according to age.
N=300.



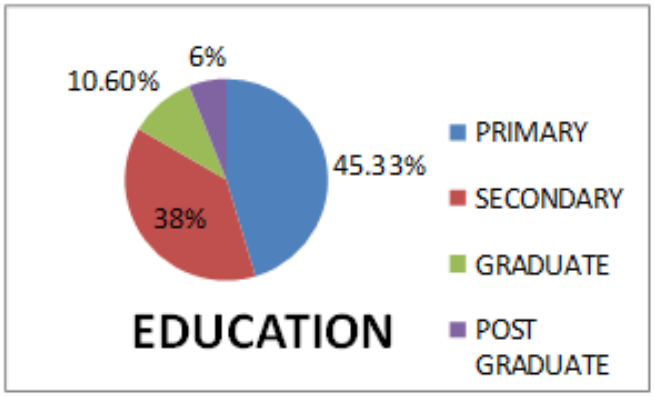
Interpretation: The data presented shows that out of 300 sample, 27% were in the agegroup of 20-29 years, 19.66 % were in the age group of 30-39 years, 32% were in the age group of 40-49 years and 21.33% were in the age group of 50-59 years.

Percentage wise distribution of the samples according to sex.
N=300



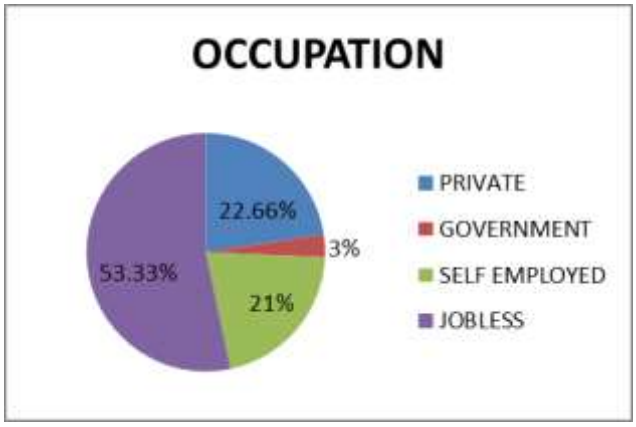
Interpretation: The data presented shows that out of 300 sample, 43.33% were males and 56.66% were females.

Percentage wise distribution of the samples according to education.
N=300



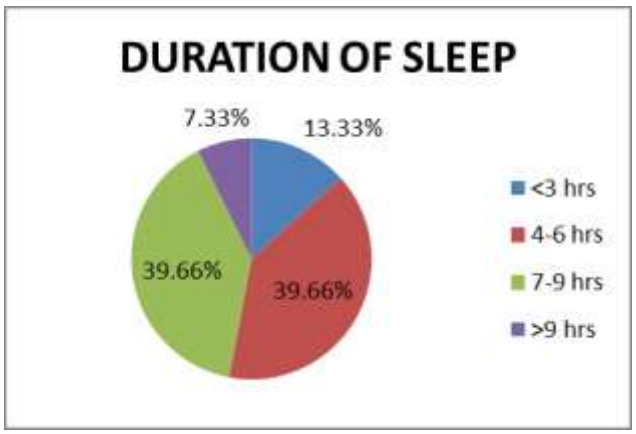
Interpretation: The data presented shows that out of 300 samples 45.33% has primary level of education, 38% has secondary level of education, 10.60% were graduates and 6% were post graduate

Percentage wise distribution of the samples according to occupation.
N=300



Interpretation:- The data presented shows that out of 300 samples, 22.66% has private job, 3% has government job, 21% were self employed and 53.33% were jobless.

Percentage wise distribution of the samples according to duration of sleep
N=300



Interpretation: The data presented shows that out of 300 samples, 13.33% sleeps less than or equal to 3 hours, 39.66% sleeps for 4-6 hours, 39.66% sleeps for 7-9 hours and 7.33% sleeps more than or equal to 9 hour.

Association between insomnia and associated factors

Level of insomnia									
Sl No	**Variables**	**Non-significant**	**Mild**	**Moderate**	**Severe**	**Chi square**	**Table value**	**df**	**Level of significance**
1	**Physical factors**								
	pain	6	9	18	24	114.5	7.815	3	S
	Chronic Diseases	10	5	6	2	2.826	7.815	3	NS
	Dyspnea	8	10	6	4	7.445	7.815	3	NS
	Any other	14	8	4	2	7.747	7.815	3	NS
2.	**Electronic Devices**								
	Television	20	10	8	9	6.303	7.815	3	NS
	Mobile	3	60	38	28	229.65	7.815	3	S
	Computer	0	0	0	0	0	7.815	3	NS
	Any other	0	0	0	0	0	7.815	3	NS
3	**Caffeinated Drinks**								
	Tea	8	7	7	3	52.8	7.815	3	S
	Coffee	3	5	6	4	13	7.815	3	S
	Soft Drinks	2	2	1	0	1.32	7.815	3	NS

	Any other	0	0	0	0	0	7.815	3	NS
4.	**Heavy Foods**								
	Spicy food	6	7	5	3	114.01	7.815	3	S
	Fried food	10	6	10	8	52.93	7.815	3	S
	Fatty food	5	6	5	4	7.5	7.815	3	NS
	Any other	0	0	0	0	0	7.815	3	NS
5.	**Day time naps**								
	30min-1hr	22	8	4	13	0.56	7.815	3	NS
	1hr-2hr	28	9	4	16	1.37	7.815	3	NS
	2hr-3hr	16	8	8	4	0.1	7.815	3	NS
	>3hr	8	4	6	2	0.1	7.815	3	NS
6.	**Substance use**								
	Alcohol	4	14	9	5	1.5	7.815	3	NS
	Smoking	18	6	12	3	0.36	7.815	3	NS
	Cannabis	0	0	0	0	0	7.815	3	NS
	Other	0	0	0	0	0	7.815	3	NS
7.	**Related to work**								
	Working stress	4	6	8	14	55.4	7.815	3	S
	Unfavorable working condition	1	2	3	4	3.2	7.815	3	NS
	Improper work schedule	2	4	8	13	2.8	7.815	3	NS
	Any other	0	0	0	0	0	7.815	3	NS
8.	**Sleep Atmosphere**								
	Sleeping outside	0	0	0	0	0	7.815	3	NS
	Noise	3	7	10	21	9.86	7.815	3	S
	Unfamiliar atmosphere	3	4	4	7	0.93	7.815	3	NS
	Other	0	0	1	2	0.73	7.815	3	NS
9.	**Medicines**								
	Antihypertensive drugs	15	10	20	10	38.75	7.815	3	S
	Hypoglycemic drugs	10	15	7	10	4.66	7.815	3	NS
	Antithyroid drugs	3	2	2	4	2.33	7.815	3	NS
	Any other	15	10	20	10	3.29	7.815	3	NS
10.	**Other factors disturbing sleep**								
	Stress	20	30	20	10	14.52	7.815	3	S
	Anxiety	25	20	7	10	9.82	7.815	3	S
	Death of beloved ones	0	3	3	0	1.21	7.815	3	NS
	Any other	14	8	4	2	3.27	7.815	3	NS

RESULT

In the present study the demographic data revealed that 19.66% of the adults belonged to the age of 30-39yrs and 32% of the adults belonged to the age of 40-49 years. 56.66% of adults were females and 43.33% of adults were males. Regarding their source of information, it was found that 45.33% of adults had primary education and 6% were post-graduated. Regarding occupation, 3% were government employees and 53.33% were jobless. Among adults, 39.66% had an average of 4-6hr sleep and 7.33% had an average of >9hr sleep.

The present study revealed that a majority of adults (52.33%) had non-significant insomnia, 24% of adults had mild insomnia, 13.66% had moderate level of insomnia and only 10% had severe insomnia.

The study revealed that 42% of adults had physical difficulties that affect sleep, 59.33% had habit of using electronic devices before sleep, 16% had habit of consuming caffeine contained drinks before sleep, 25% had habit of consuming heavy foods before sleep, 53.33% had habit of sleeping during daytime, 23.66% had habit of substance use before sleep, 23% felt that their work affects quality of sleep, 20.66% were unsatisfied with their sleeping atmosphere, 33% were taking certain drugs daily and 27% had some other factors that affect sleep.

The association was found out by using Chi square test. It was inferred that the present study showed that there was significant association between insomnia and associated factors such as pain, mobile, tea, coffee, spicy food, fried food, work stress, noise, anti-hypertensive drugs, stress and anxiety (Calculated value greater than table value at 0.05 level of significance) and there was no significant association between insomnia and other factors (Calculated value smaller than table value).

DISCUSSION

The present study was intended to assess the level of insomnia and it's associated factors among adults in selected community area at Pallithottam, Kollam district. The study shows that 52.33 % of sample had no clinically significant insomnia, 24% had mild insomnia, 13.66% had moderate insomnia and 10% had severe insomnia. The study showed that there was significant association between education level of the participant. There was no significant association between other demographic variables like age, sex and job status. The study also showed that there is significant association between level of insomnia and pain, use of mobile phone, consumption of coffee, tea, spicy and fried food before bed time, noisy sleeping environment, job stress, intake of antihypertensive drugs and emotional factors like stress and anxiety. There was no significant association between level of insomnia and other factors.

CONCLUSION

The study was conducted to assess the level of insomnia and it's associated factors among adults in selected community area at Pallithottam, Kollam.

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