



INSOMNIA AMONG UNIVERSITY STUDENTS IN KARACHI: A PSYCHO-SOCIAL STUDY

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Abstract

The current research about the awareness and effects, cure regarding insomnia. In the contemporary society insomnia is a serious problem and day by day it increases due to different psycho social circumstances, Insomnia is a sleeping disorder and in which researchers try to find out the causes, effects and analyze the human relationships in order to find the causes for psycho social, educational, social life issues and their cure. The aim of this study is to systematically review the evidence relating to the prevalence rate of insomnia in Karachi University students. The sampling technique of the present study was the simple random sampling, the researchers chose the random students of final year from that different departments of Karachi University. The sample was comprised of 64 students (23 males, 41females) with the age range of 18-29 years. In this research study, questionnaire was close ended which is based on 27 questions. The research concluded that there will be no significant relation between awareness of Insomnia and behavioral change and also there is no relationship between trouble in night sleep and the day time performance.



Keywords: Insomnia, youth, social life, academic performance, family dynamics, social determinants, psychological factors.

Introduction

Sleep is basic for physical, psychological and social health as far as it biological in nature. (Coveney, 2014) In medical term, insomnia is difficulty in falling asleep. (Roth, 2007) The most common sleep disorder is insomnia, is the complaint of insufficient or poor-quality sleep as a result of one or more of the some issues, (American Psychiatric Association, 2000) like trouble falling asleep, frequent nighttime awakenings with difficulty falling back asleep, waking up too early in the morning, or unrefreshing sleep. (World Health Organization, 1992)

An individual is said to have insomnia if they meet any or all of the following conditions: they consistently have trouble falling asleep and staying asleep; they frequently wake up early in the morning; and they never get non-restorative, pleasant sleep. It is the most prevalent sleep issue in the general public. It now affects 33 to 50% of adults and 5 to 10% of the general population, and has become increasingly prevalent in recent years. (Sateia et al., 2017) Commonly, sleep disturbance related with mental and physical disorders. (Keskin et al., 2018) According to study 50 to 80% of individuals are suffer from sleeping disorders that caused psychiatric issues. (Ford & Kamerow, 1989)

Lack of quality sleep, disturbed sleep, and daytime sleepiness brought on by environmental cues are all aspects of insomnia. These symptoms can have a negative impact on a person's physical and mental health as well as impair their memory and attention span. (Khan & Ullah, 2022) Thus, there are two types of insomnia. Primary (suffer from sleeping problems) and secondary insomnia (trouble sleeping causes health issues). (Robinson, 2021) National Institutes of Health Sleep Disorders Research Plan (NIHSDRP) in (2011) states that chronic or severe sleep disorders are "induced by trouble initiating and acquiring sleep, and complaints about the relative quality of sleep that happens every day and result in bad interactions with others short memory." Chronic poor sleep can be caused by a variety of conditions, including illnesses, sleep disorders, professional commitments, social obligations, domestic chores, and personal lifestyle concerns. (Banks & Dinges, 2007)

Insomnia have a negative influence on human life and excessive sleeping disorders causing different psychological problems. (Taylor et al., 2013) Every fifth person reports having an anxiety problem at least once in their lives. It is well known that people who experience anxiety usually have insomnia. (Liu et al., 2015) Previous studies have revealed a connection between the level of insomnia and how stressed out a person feels, with higher stress levels causing more severe insomnia. (Sredniawa et al., 2019) Many researches shown that the bond between insomnia and stress. It shows that stress related issues causes the sleeping disorders. (Huang et al., 2020)



The main risk reasons of insomnia are sex, age, low socio economic status and divorced matters. (Jiang et al., 2015) Lower living standards, marital status, chronic sickness, weakened physical conditions, ageing, extra academic activities, childhood adversities, and unsuitable sleep are other variables that might contribute to insomnia. (Haile et al., 2017) The person becomes physically and to some extent, psychologically unfit as a result of reduced in sleep and a variation in sleep patterns. Day sleep, exhaustion, or insomnia are more prevalent in young people, particularly in university students, and they can cause a variety of problems for them. (Khan & Ullah, 2022)

Another research study stated that those students facing sleeping issues shows bad academically, basically this research found an association among sleep, memory, and learning ability. (Turner et al., 2021) Additionally, students have a bad nighttime pattern that results in poor, limited sleep. (Kang & Chen, 2009) Also, another research study shown that university students suffering from insomnia in Nigeria, Libya, and Egypt that is 9.4% to 38.2%. (Taher et al., 2012) A research study conducted on a university students and found that increasing years in university education higher the effects of insomnia. (Tsai & Li, 2004)

In contrast, other factors, such as parental expectations and socioeconomic position, may affect college student's academic success in addition to sleep. (Grossman et al., 2011) Another research conducted on topic Academic Performance, Employment, and Sleep Health: A Comparison between Working and Nonworking Students, in this research the results showed that sleep, job hours, and household income were all related to average grade point; students employed in the service sector received a slightly poorer sleep score than those employed anywhere. (Chiang et al., 2020)

From the recent research studies found that in university students high rate of insomnia is present due to working overnight, pressure of work, late night gatherings. (Chowdhury et al., 2020) Some researchers concluded in their research that the frequency of insomnia ranges from 9.4% to 38.2% among university students. (Jiang et al., 2015) Additionally, in another research stated that students have less sleep and sleep deprivation due to stress, melancholy, and workload, which contributes to the incidence of insomnia. (Khan & Ullah, 2022)

Specialists suggested that the adult recommended sleep hours is 7 to 9 hours per day but students sleep less than to it. (Oluwole, 2010) Therefore, identifying, reducing, and avoiding the variables contributing to the causes of insomnia is necessary to improve academic performance and minimize stress. (Rodrigues et al., 2002) Pakistan is also facing this situation. Most of the youth is prey of the insomnia due to which most of the families are facing psychological, health and social issues. Therefore, the research tend to study the "awareness, causes and effect of insomnia and its impact on social life".



Literature Review

Insomnia is a disease in which person has disturb sleep. (Roth, 2007) Poor sleep has a negative influence on behavior and work performance. Besides those people who sleep a lot throughout the day suffer from insomnia. (Bonnet & Arand, 1995) Furthermore, there are additional factors that influence sleep quality and negatively impact human cognitive abilities, such as information processing, the accumulation of intellectual facts, and the learning process, which includes physiological variables, school schedules and job schedules. (Gharagouzlo et al., 2016)

However, poor sleep quality has a highly negative effect on learning and academic skills, including quantitative problem-solving skills. Likewise, getting few or poor quality sleep affects memory and cognitive function. (Pilcher & Walters, 1997) It is also link with many psychological issues such as depression, tension, stress and anxiety etc. (Mason & Harvey, 2014) other studies found that in young adults and university students have found psychiatric problem like insomnia. (Wali et al., 1999) The frequency of bad sleeping habits among undergraduate students worldwide is significant. (Jiang et al., 2015) Graduate students generally have better sleep habits than undergraduate students, despite this being self-reported. (Oswalt & Wyatt, 2015) Spare time, sleep and wakefulness schedules, naps, and a healthy lifestyle all contribute to better academic performance. (Sweileh et al., 2011)

Because university students are the society's future that's why the rate of sleeping disorders is present in them. (Jhaveri et al., 2007) One common disorder among college students is insomnia. Depression and anxiety problems are more prevalent among students who have sleeplessness. Additionally, some personality traits and poor quality of life are connected to insomnia. (Yilmaza & Kugu, 2022)

Hershner and Chervin (2014) reported in their thorough analysis that daytime sleepiness, sleep loss, and irregular sleep patterns are typical sleep issues for college students. The researchers identified the factors that contribute to sleep issues and their effects, such as irregular class or job schedules, sleep disorders, and unhealthy behaviors. As a result, these sleep issues may have a detrimental effect on a student's disposition, ability to drive, and academic achievement. According to the researchers (Sweileh et al., 2011), in the result of continuously disturb sleeping of an individual led to poor relationships, misbehavior and road accidents. Viz-a-viz sometimes insomnia rise in the rate of accidents while driving, mental health difficulties, and suicide risk. (Brick et al., 2010) In addition, several research have shown that clinically anxious youth have a considerable prevalence of poor sleep, and that university students have increased levels of anxiety and stress. (Royal-College-of-Psychiatrists, 2011)

In Germany, the researchers Angelika et al., (2017) in their research shown that poor sleep influence on students life, average result, students are not focusing on exams and the result found



that 60% of students are not taking good quality of sleep while 7.7% of students have insomnia disorder in which they suggested that those who suffering from it concern to specialists and take treatment as well.

Alsaggaf et al., (2016) conducted a research in Canada and U.S and they found that medical students suffering from psychological issues, in which sleep problems, fatigue, bad relationships directly influence on student's academic performance. Senol et al., (2012) in another research stated that poor sleep quality is now regarded as a barrier to student's success. In order to prevent its disastrous impact on student academic performance, it must be addressed as early as possible (Ohayon, 2008).

According to studies, between 9.4% and 38.2% of university students report insomnia. (Haile et al., 2017) Some researchers Zeek et al., in (2015) highlighted in their research that most pharmacy students slept for less than the recommended amount of time each night, which is 7 hours. Student curriculum results and semester GPAs were directly correlated with getting enough sleep the night before an exam. According to another study, university student's excessive use of social media and contemporary technology is one of the reasons of insomnia. We could also say that spending more time in front of screens is the primary and fundamental cause of insomnia among university students. (Khan & Ullah, 2022) People who are showed to sleep deprivation typically show changes in cognitive function and emotional disturbances. (Philibert, 2005)

Students who get quality sleep perform better academically than those who don't. (Eliasson et al., 2010) A research conducted by (Brunborg et al., 2011) stated that the usage of social media and the internet are the main cause of sleeping disorders among university students. Many recent studies found that the mental disorders like depression and anxiety caused by the poor sleep quality. (Carney et al., 2014) Numerous evidence-based studies point to the possibility that bipolar disorder's mood symptoms may be increased by sleep disorders including insomnia. First, bipolar illness sufferers who get less sleep than those who get more show higher signs of mania, despair, anxiety, and irritability. (Gruber et al., 2009)

However, the research conducted by Pagel and Kwiatkowski in (2010), found a substantial negative correlation between insomnia and academic performance. This gap may be caused by the age, educational level, and operationalization of insomnia or poor sleep habits of the research population. (Pagel & Kwiatkowski, 2010) As compare to men the ratio of insomnia is higher in women. (Kessler, et al, 2011) As see from the above literature review, in this study researchers meant to find out how insomnia is among university students and to see how they are related to different psychological issues and general quality of social life.

Objectives

There are a few objectives, some of which are listed here.



- To explore social determinants of insomnia among university students.
- To study the effect of insomnia on social life.
- To know the psychological effects of insomnia in youth.
- To assess the educational problems due to insomnia.

Hypotheses

- There will be significant relation between Trouble in night sleep and the affect the day time performance.
- There will be significant relation between awareness of insomnia and behavioral changes.

Methodology

The nature of the present study was exploratory research, the data was collected from students of University of Karachi, Karachi. The students who were studying in University of Karachi was 51380 and there are 53 Departments in it. The secondary data was taken in through the two ways, one was website searching: different books, research, journals, reports, and required information were collected from the internet and another was picked up through physical presence in the library and associated agencies. After completing the tabulation in a simple statistical method, the researcher used chi-square to test the hypotheses and final association between the independent and dependent variables, data were cross tabulated by making contingency tables in which data were classified into the variables (that is dependent and independent). The sampling technique of the present study was the simple random sampling. In that manner the researchers chosen the random students of final year from different departments. The sample was comprised of 64 students (23 males, 41females) with the age range of 18-29 years. In this research study, questionnaire was close ended which is based on 27 questions. It has three sections which are personal profile, family profile and research profile. These questions were focused to, find out the condition, behavior, awareness, causes and effect of insomnia and its impact on social life. It is necessary to test the reliability and smoothness of the questionnaire, pre-testing was conducted before going for actual data collection. In the light of pretesting the research questionnaire was finalized.

Findings and Results

Based on data analysis, several conclusions on the reasons why university students experience insomnia and how it affects their academic performance have been found.



Table. 1 Age

Age	Frequency	Percentage
18 to 20	09	14%
21 to 23	47	73%
13 to 26	07	11%
27 to 29	01	02%
Total	64	100%

Table.1 shows that the highest percentage of the respondents 73% are in the range of 21 to 23 age group, 14% in 18 to 20 age group, 11% in 24 to 26 age group, where 2% in the range of 27 to 29 age group.

Table. 2 Respondents family's total income

Income	Frequency	Percentage
10,000	2	3%
11,000 to 20,000	7	11%
21,000 to 30,000	10	16%
31,000 to more	45	70%
Total	64	100%

70% of the respondents claimed their family monthly income is 31,000 to more, 16% were in range of 21,000 to 30,000, 11% in the range of 11,000 to 20,000 family income group, while the remaining 3% in the range of till 10,000.

Table. 3 Respondents employment

Respondents Employment	Frequency	Percentage
Yes	19	30%
No	45	70%
Total	64	100%

The above shows that the highest percentage of the respondents are 70% in the range of Employed group they do Own business, tuition and part time jobs, while 30% in the range of unemployed group.



Table.4 comprises of some statements dealing with the effects of insomnia on students and their academics

	Questions to the Students	Yes (Percentage)	No (Percentage)	Percentage
1	Do you aware of the term sleeping disorder	42 (66%)	22 (34%)	64 (100%)
2	Do you know about Insomnia	47 (73%)	17 (27%)	64 (100%)
3	Do you feel trouble during night sleep	34 (53%)	30 (47%)	64 (100%)
4	Do you feel stressed before going to bed 'day or night' due to lack of sleep or sleep deprivation	46 (72%)	18 (28%)	64 (100%)
5	Can lack of sleep or sleep deprivation effect your education/ job	45 (70%)	19 (30%)	64 (100%)
6	Do you feel any change in your behavior due to lack of sleep or sleep deprivation	54 (84%)	10 (16%)	64 (100%)
7	Do you use any kind of medicine for taking sleep	7 (11%)	57 (89%)	64 (100%)

In Table.4, 66% of respondents said that they having awareness about sleeping disorder, while 34% said that they not having awareness about it. Thus, 73% of respondents stated that they having awareness about Insomnia by through internet, by knowing through books, by knowing through friends and by knowing through TV and in the present the results showed that 53% of the respondents said that they having trouble during night time sleep due to stressed feeling that is 72%.

The results showed that 70% of the students said that job/ education are affect them like lack of interest in work and unable to complete task etc. And only 7% of the respondents said that they are taking medicine for sleeping. Moreover, Sleep problems eliminate when using the sleeping pills.

Table.5 Insomnia effect their social life

Effect	Frequency	Percentage
Yes	45	70%
No	19	30%
Total	64	100%

This table shows that the highest percentage of the respondents are 70% in the range of insomnia effect their social life while the rest of respondents claimed that insomnia doesn't affect their social circle that is 25%.



Table.6 Do students experience any changes in their behavior due to lack of sleep that often causes psychological effects?

Effect	Frequency	Percentage
Yes	54	84%
No	10	16%
Total	64	100%

This table shows that the highest percentage of the respondents are 84% in the range of feeling change in behavior like irritation, aggressiveness and lack of interest in studies or at job etc., while 16% in the range of not feeling any behavioral change.

Table. 7 How do respondents feel when they wake up in the morning

Feelings	Frequency	Percentage
Fresh	24	37.5%
Tired	27	42%
Irritable	8	12.5%
Other	5	8%
Total	64	100%

The Table.7 shows that the highest percentage of the respondents are 42% in the range of feeling tired, 37.5% in the range of feeling fresh, 12.5% in the range of feeling irritable, while 8% in the range of feeling other things.

Table. 8 Approximately, how much duration do respondents awake before bed time

Awaken duration	Frequency	Percentage
30 to 60 minutes	33	51.5%
1 hour to 2 hours	17	26.5%
2 hours to above	14	22%
Total	64	100%

The above table shows that the highest percentage of the respondents are 51.5% in the range of 30 to 60 minutes group, 26.5% in the range of 1 hour to 2 hours group, while 22% in the range of 2 hours to above table.

Table. 9 Which one activity do respondent do before sleep?

Activity	Frequency	Percentage
Eat	1	1.5%
Watching TV	3	5%
Use of mobile	56	87.5%
Other	4	6%
Total	64	100%

87.5% of the respondents stated that they have using mobile before sleep, 6% of the respondents said that they have using other activity like doing assignments, reading books/novels, watching TV and playing games etc. while only 1.5% of the respondents said that they have eating habit



before sleep. Hence, the researchers emphasized the main causing of respondents not to sleep are social determinants (water, electricity, financial problems) and loss of relationship with family.

Table. 10 How does lack of sleep and sleep deprivation affect respondent's daily day engagements?

Affect day engagements	Frequency	Percentage
Mental fatigue	18	28%
Sleep in day time	21	33%
Unable to complete work	05	08%
Headache	16	25%
Other	04	06%
Total	64	100%

The Table.10 shows that the highest percentage of the respondents are 33% in the range of sleep in day time group, 28% in the range of mental fatigue group, 25% in the range of headache group, 8% in the range of unable to complete work group, while 6% in the range of other group.

Table. 11 How much problem has it been for respondent to keep up enthusiasm to get things done?

Problem	Frequency	Percentage
Slightly problem	17	27%
Somewhat problem	36	56%
A very big problem	11	17%
Total	64	100%

The highest percentage of the respondents that is 56% said that to some extent problem to keep up enthusiasm to get things done, 27% of the respondents said that slightly problem to keep up enthusiasm to get things done, while 17% of the respondents said that very big problem to keep up enthusiasm to get things done.

HYPOTHESES TESTING

HYPOTHESIS 01

Problem Analysis:

H1= There will be significant relation between trouble in night sleep and affect the day time performance.

H2= There is no relationship between trouble in night sleep and the day time performance.

Statistical Test:

Chi-square formula: $\chi^2 = \frac{\sum(f_o - f_e)^2}{f_e}$

Result

The compute value of $\chi^2 = 0.64$, which is less than the tabulated value 3.841. Therefore, the null hypothesis (H2) is accepted and the research hypothesis (H1) is rejected, which concludes that there are some other causes/ reasons which affect the day time performance.



HYPOTHESIS 2

Problem Analysis:

H1= There will be significant relation between awareness of Insomnia and behavioral change.

H0= There will be no significant relation between awareness of Insomnia and behavioral change.

Statistical Test:

Chi-square formula: $\chi^2 = \frac{\sum(f_o - f_e)^2}{f_e}$

Result

The compute value of $\chi^2 = 2.25$, which is less than the tabulated value 3.841. Therefore, the null hypothesis (H2) is accepted and the research hypothesis (H1) is rejected, which concludes that there are some other causes/ reasons of behavioral changes.

Conclusion of the Research

The study found that insomnia is a common and significant problem among university students, as far as it damaging them academically, physically, and emotionally. Researchers found that Insomnia is a prevalent health problem that prevents them from focusing fully on their studies and academic achievement. In order to identify the primary causes of insomnia and implement effective solutions, greater focus should be placed on the factors that influence insomnia among university students.

This research stated clearly that insomnia among university students is a widespread health problem, and that greater effort should be made to reduce it.

Recommendations

- Every students if maintain their sleeping timing so they can achieve every task in their life such as smart job, superb academic grades, strong relations etc.
- According to the study, parents, elders, or other caregivers should have an appropriate check and balance in order and students should only be permitted to use social media for a short period of time.
- Do not use a phone, study, or do anything else if you have insomnia. For instance, refrain from watching TV or listening to the radio while lying in bed or even in the bedroom. All of these things might make you more attentive and prevent you from falling asleep.
- Everyone should be plan for change behaviors and lifestyle to help their get to sleep.
- Every individual in society should get up at the same time every day in order to train their body to wake at a regular time.
- Establishing and maintaining a regular sleep schedule is essential, as is learning individual's brain to link sleep with signs like darkness and a regular bedtime.



- For quality sleep exercise play a vital role for which try to finish exercising at least 3 hours before sleep.
- Become less stressed. Before going to bed, you might wish to try one of the many relaxation therapies and stress-reduction techniques available. For instance, deep breathing exercises, meditation, etc.
- This study opened a pave for new researcher as it was piloted on major issue of insomnia in youth. But new researcher can explore it with large sample as this study was unable to explore the causes those effect youth psychologically and socially.



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