Severity of Insomnia Symptoms in Young Adults

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Abstract: Insomnia is characterized by difficulty in falling and/or staying asleep. People with insomnia experience one or more of the following symptoms: difficulty getting asleep, difficulty falling asleep again frequently throughout the night and after being awake for a while, and waking up too early or unintentionally in the morning. Objective: To study the severity of insomnia symptoms in young adults. Design: It was a cross-sectional single group exploratory study. Participants: A sample of hundred participants of both genders (53 males and 47 females) aged between 20 to 30 years was taken. Procedure: An online survey was conducted by using 'Google Forms' to study Insomnia symptoms among young adults in India. Results: About 52% of total participants reported one or more symptoms of insomnia, and 12% reported moderate level, 14% reported severe level and 26% reported sub-threshold level of insomnia symptoms. A Chi-square analysis of frequency distribution confirmed the significant difference among the four groups; namely no insomnia (n=48), sub-threshold insomnia (n=26), moderate level insomnia (n=12), and severe level of insomnia (n=14) at χ^2 (3, N=100) = 32.8, p >0.0001. Conclusion: A large proportion of young adults reported insomnia symptoms. There is a dire need to address this serious issue.

Keywords: Insomnia Severity, Young Adults, Online Survey, Level of insomnia

1. Introduction

Sleep disorders are quite widespread, with insomnia being the most frequent. Sleep deprivation has been associated to poor self-rated health and psychological suffering in young adults (Steptoe, Peacey, & Wardle, 2006; Glozier *et al.,* 2010). Sleep is essential for preserving health and well-being, and this is becoming increasingly recognised among teenagers and young adults (Bruce, Lunt, & McDonagh, 2017).

Insomnia is a sleep disorder that causes difficulties falling and/or staying asleep. Insomniacs have one or more of the following symptoms: difficulty falling asleep, difficulty returning to sleep frequently during the night and after waking up for a while, and waking up too early in the morning involuntarily. Insomnia can be acute or chronic, and in some cases, the two. Acute insomnia lasts from one night to a few weeks, but chronic insomnia occurs at least three nights a week for three months or longer.

Chronic insomnia is a highly frequent disorder that affects one-fourth of the clinical population (those who are ill) and is linked to a wide range of conditions (Chaudhury *et al.,* 2019). Chronic insomnia is diagnosed using similar criteria in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (American Psychiatric Association, 2013) and the International Classification of Sleep Disorders (American Academy of Sleep Medicine, 2014). These criteria state that symptoms must cause clinically substantial functional distress or impairment, must be present at least three nights per week for at least three months, and must not be associated with any other sleep, medical, or mental illnesses.

Sleep problems are frequent among college students, with the most common sleep-related issues being difficulty going asleep, difficulty maintaining sleep, early morning awakenings, poor sleep quality, early morning weariness or sleepiness, and daytime napping (Schlarb, Friedrich, & Claben, 2017). People with poor sleep quality typically have lower cognitive ability. This behaviour may be more frequent among university students due to the high level of academic performance pressure in this population (Zavecz *et al.,* 2020).

According to a recent Indian survey, more than 64 percent of adolescents sleep fewer than eight hours each night, with 5.6 percent sleeping less than six hours. Approximately 48% of teenagers reported extended sleep-onset latency, and 43% had disrupted sleep. More than 64% of adolescents watch television (TV) in bed, and more than 23% use a mobile phone in bed. Approximately 64% of adolescents engaged in at least one sort of poor sleep hygiene behaviour (Murugesan *et al.,* 2018). Unhealthy sleep habits may be producing a generation of sleep-deprived individuals who may not be operating at peak performance (Moulin & Chung, 2016).

Mental health problems, particularly depression, play a significant impact in sleeplessness among adolescents, and are just as essential as social or environmental factors (Hsieh, Lu, & Yen, 2019). The majority of students (88%) reported some form of sleep complaint, with 36% reporting a sleep complaint suggestive of a sleep disorder (Thomas, 2014). Better academic achievement in college is highly connected with better sleep quality, duration, and consistency (Okano *et al.,* 2019). This work aimed to study the severity of insomnia symptoms in young adults.

2. Method

2.1 Design: Cross sectional single group exploratory study was conducted through online survey method.

Sample A total of 100 participants included in the present study. In which 53 were Males and 47 were Females aged 20 to 30. Majority of the participants belonged to Hindu community (88%) and the remaining others were from Muslim (3%), Sikh (7%) and Jain (2%) communities. Among the participants 36% were from rural background, 44% were Urban and 20% Semi-urban backgrounds. 58% participants were educated up to Graduation and 42% were Post Graduates.

2.2 Instruments Used:

2.2.1 Socio-demographic Sheet

A semi structured Socio-demographic Sheet was used to document the socio demographic characteristics of the subjects. The basic details like age, education were collected from all the participants.

2.2.2 Insomnia Severity Index (ISI)

The Insomnia Severity Index (Morin, 1993) seven items questionnaire was used to measure the type, severity, and effect of insomnia. Morin created the ISI as a patient-reported outcome measure that may be used for both screening and determining pharmaceutical efficacy. Despite the fact that it is not meant to be a diagnostic tool, it is extensively used to detect probable instances of insomnia and to assess the perceived severity of insomnia. Each question is rated on a five-point Likert scale (0 = no difficulty; 4 = extremely severe problem), for a total score of 0 to 28. There is no insomnia (0-7), sub-threshold insomnia (8-14), moderate insomnia (15-21), and severe insomnia (22+). (2-28). ISI is a robust and accurate method for measuring the severity of self-reported insomnia (Bastien, Vallières, & Morin, 2001). The test-retest reliability of ISI has been shown to be 0.84. The ISI and the PSQI have a favourable relationship, according to the study (Pearson's coefficient, r = 0.45). With a Cronbach's alpha of 0.84, the ISI's internal consistency has been judged excellent (Veqar & Hussain, 2020).

2.3 Procedure

The study was survey-based and conducted through online. Each respondent received a unique Google Form questionnaire that was distributed via the Facebook and WhatsApp apps. They were informed of the survey's objectives and asked to provide accurate and sincere answers. A total of 121 responses in all were gathered. However, a sample size of 100 was taken after screening was done to separate responses that fit the required age parameters.

3. Results and Discussion

The present study was conducted through online mode i.e. Google forms to explore the severity of insomnia symptoms in young adult by recruiting a group of 100 individuals aged between 20 to 30 years of both genders i.e. Male and Females. Seven questions of Insomnia Severity Index were given to the subjects and the obtained results have been shown in terms of the frequency in the following table.

Table 1. Percentage of people with different level of severity of insomnia symptoms

Types of Insomnia	No Insomnia	Sub-Threshold Insomnia	Moderate Level Insomnia	Severe Level Insomnia
Frequency	48	26	12	14

As described in the above table it was found that 48% of total participants were having no symptoms of insomnia, 12% had moderate level of severity of insomnia, 14% had severe level of insomnia and 26 had sub-threshold insomnia symptoms.

A Chi-square analysis of frequency distribution applied on these four categories confirmed the significant difference among the four groups namely no insomnia (n=48), sub-threshold insomnia (n=26), moderate level insomnia (n=12), and severe level insomnia (n=14) at χ^2 (3, N=100) = 32.8, p >0.0001. The findings of our present study are more or less similar to some previous studies. The overall prevalence of insomnia was found to be 30.5 percent in a study on young adults (Sivertsen *et al.,* 2019)**.**

These results have been described in more details in terms of percentage of responses on all the seven aspects or questions of the Insomnia Severity Index questionnaire in the form of pie chart below (figures 1 to 7).
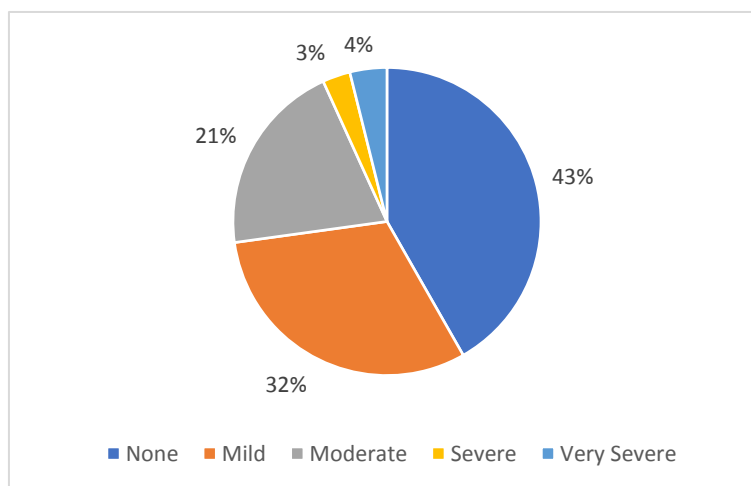

Figure 1. Showing the percentage of participants with varying degrees of difficulty.

Figure 1 shows that 43% of the participants had no difficulty in falling asleep while 32% had difficulty at only a Mild level, 21% had at moderate level, 3% had severe level and 4 % had difficulty at very severe level. The finding are more or less similar to another Indian survey on sleep patterns and insomnia on young adults in which 46.8% of the participants had reported that they have occasionally experienced trouble in falling asleep and about 11.3% were having difficulty to fall asleep (Mohanty, Negi, & Nagpal, 2019).

Figure 2 shows that 47% the participants experienced mild to very severe level of difficulty staying asleep. In which 29% had mild level of difficulty, 14% had moderate level, 3% had severe level and 2% had difficulty of very severe level. In a recent Indian study on young adults approximately 37% reported nocturnal awakenings or difficulties in staying asleep (Gupta *et al.,* 2008).

Figure 3 shows 33% had mild level of problem of waking up too early, 16% had moderate level of problem, and 12% had severe level of problem while 5% had very severe level of problem. In an another survey conducted in 2001, 13.6 percent participants reported problem of waking up too early in last three or more months (Buboltz, Brown, & Soper, 2001)**.**
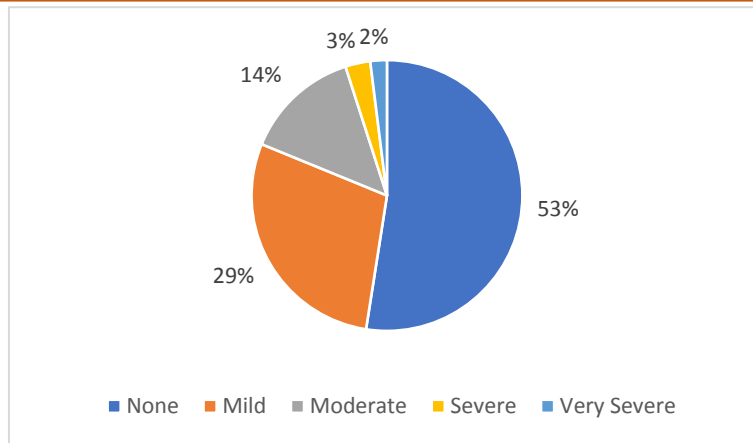
Figure 2. Showing the percentage of participants with varying degrees of difficulty in staying asleep
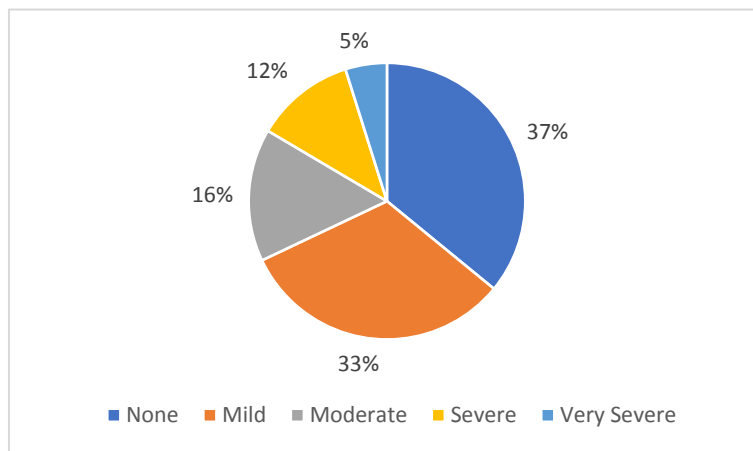

Figure 3. Showing the percentage of participants with varying degrees of problem of waking up too early
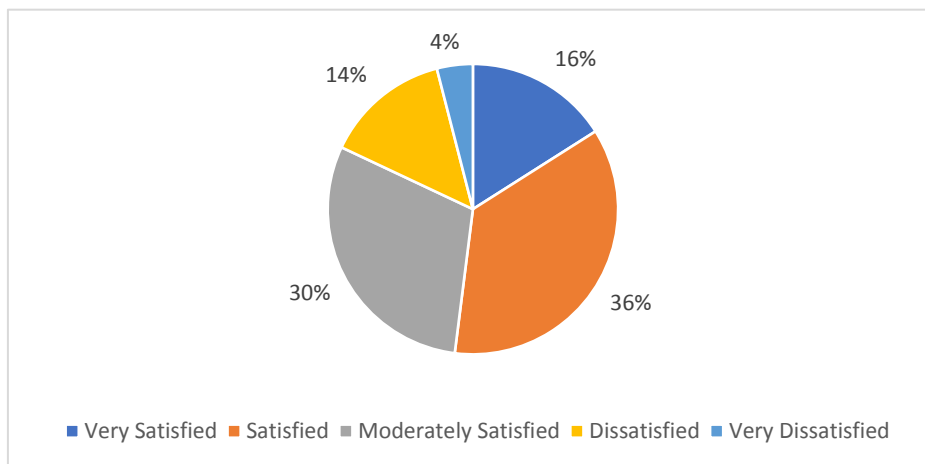

Figure 4. Showing the percentage participants with varying degrees of satisfaction or dissatisfaction with current sleep pattern

Figure 4 This figure shows that 16% of the participants are very satisfied with their current sleep pattern, 36 % feel satisfied, 30% are moderately satisfied whereas 14% are dissatisfied and 4 % are very dissatisfied. The findings of our present study are nearly similar to an Indian survey in which 36.2% considered the quality of their sleep as average while a substantial 41.9% and 14.5% rate their sleep quality as good and very good respectively (Mohanty et al., 2019).

Figure 5 shows that 60% participants agreed that sleep problem are impairing the quality of their life to some or at the other level. These 60% are further split into four levels A little 33%, somewhat 17%, much 7% and very much 4 %.
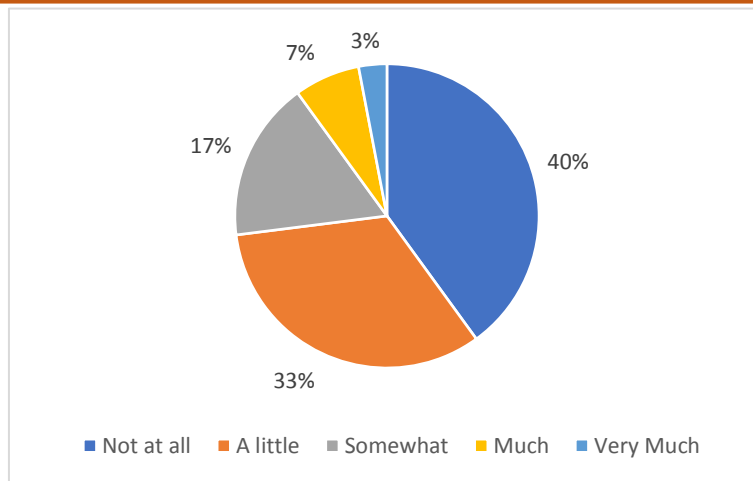
Figure 5. Showing the percentage of participants with varying degrees of Impairment in the quality of life due to sleep problem
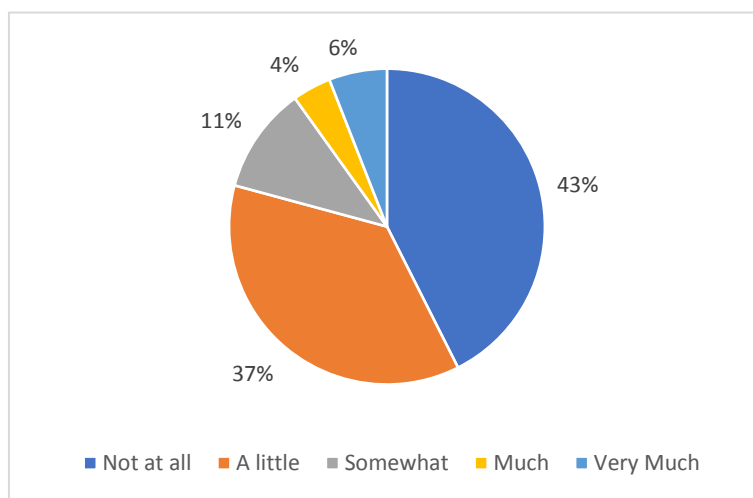

Figure 6. Showing the percentage of participants with varying degrees of worry or distress about current sleep problem

Figure 6 Shows that 37% people feel distressed or worried at a little level, 11% agreed that they are somewhat worried or distressed and 4% agreed that they are much distressed and 6% responded that they feel distressed or worried very much. Results of our study are in conformity with another study in which 25.1% had admitted to have anxiety and stress on daily basis while 33.3% had occasionally experienced those (Mohanty *et al*, 2019).
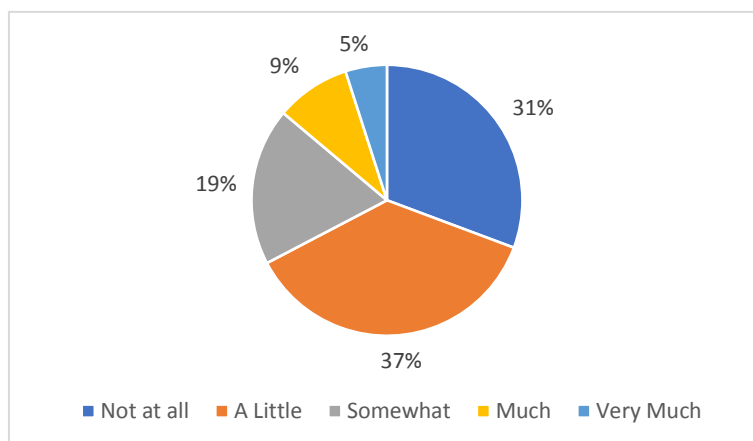

Figure 7. Showing the percentage of participants with varying degrees of Interference in daily functioning due to sleep problem

Figure 7 shows that 37% participants agreed that sleep problems interfere with their daily life functioning at a little level while 19 % reported it at somewhat level, 9% reported it interferes at much level and 5% reported it interferes at very much level. In a related Indian study, more than 50% of participants agreed that getting little sleep had a negative influence on their mood, relationships, and energy, while only 23.4% disagreed. Additionally, 65.5 % of participants acknowledged that their capacity to be productive, concentrate, and stay alert during the day was impaired by their lack of sleep (Mohanty *et al.,* 2019).

4. Conclusion

These findings draw attention to the fact that sleep disorders, such as insomnia, are major issues since they have a variety of negative effects on the individual. It affects a person's entire healthy growth as well as their mental, physical, economical, and social well-being. In the long run, it may result in the emergence of significant disorders. Insomnia affects millions of people and can have a devastating effect on their daily life. The social cost of sleeplessness is very high. But with the aid of prompt expert assistance, the entire burden can be managed. Nearly everyone with this issue can get treatment for their insomnia. Various management or therapy techniques are currently available. How to offer the available treatments to society in the most efficient way is the challenge. The general people, as well as clinicians, will need to be better educated and made more aware of this.

Implications

The purpose of this study was to highlight how common irregular sleep cycles are among students and encourage them to reevaluate their sleeping habits. Therefore, it is crucial to raise knowledge about good sleeping habits among the general public and young adults in particular. According to study findings, a significant portion of young individuals in our culture experience insomnia, which over time can result in the emergence of dangerous disorders. According to the study's findings, college and university students experience a significant rate of insomnia. Future research investigations and clinical planners may find our work to be of great use.

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