

Sleep Quality on Mental Health among Young Adults

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ABSTRACT

A person's contentment with their sleep experience is measured by their ability to fall asleep, stay asleep, get enough sleep, and feel rested when they wake up. A person's total psychological well-being, which includes their emotional, behavioral, and social functioning, is referred to as their mental health. It contains the capacity to control and deal with stress, uphold wholesome relationships, and render significant social contributions. Depression is a mental health condition marked by protracted sorrow, hopelessness, and lack of interest in once-enjoyable activities. A mental health illness called anxiety is characterized by excessive concern, fear, or trepidation over commonplace events, people, or things. The body's reaction to a perceived threat or challenge, whether genuine or imagined, is referred to as stress. It may be brought on by different physical, emotional or psychological triggers including work stress, marital concerns, money problems, or health issues. This study aimed to understand "Sleep Quality on Mental Health among Young Adults". 100 adults aged between 18 to 25 years were selected through convenient sampling from social media platforms for being a part of the study sample. Pearson's correlation and t test was administered. It was found that sleep quality has a significant negative correlation with depression, anxiety, and stress. The results also show that there is no significant difference in sleep quality based on gender.

Keywords: Sleep Quality, Mental Health, Depression, Anxiety, Stress, Young adults

Your sleep quality, or whether it is restful and restorative, is a measure of how well you are sleeping. It contrasts from sleep satisfaction, which is a more individualized assessment of how you feel about the quality of your sleep (National Sleep Foundation, Oct 28, 2020). A better level of physical, cognitive, and psychological well-being is significantly correlated with restorative sleep. Poor or irregular sleep, on the other hand, may impair cognitive and psychological functioning and damage general physical health. It was determined that insomnia and mental health conditions share some causal factors in a review by Freeman, Sheaves, Waite, Harvey, and Harrison (2020) that looked into whether sleep disruption was a contributing factor in the occurrence of mental health disorders. It was shown that there are some reciprocal relationships as well as causal links between sleeplessness and mental health problems. The need for a description of what restoring or quality sleep is makes it necessary to understand how sleep quality changes in this circumstance. "Mental health is a state of well-being in which an individual realizes his or her own abilities, can cope with the typical stresses of life, can work productively, and is able to make a contribution to his or her community," the World Health Organization

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(WHO) states. Mental health, according to the WHO, is "more than just the absence of mental disorders or disabilities." They stress the importance of protecting and restoring mental health is important for each individual as well as in various groups and societies around the world. A study entitled "The Survey of Sleep Quality and Its Relationship to Mental Health of Hospital Nurses" was conducted in the cities of Gonadan and Birjan in 2014 by Shamsari, Moshki, and Mogharab. Only 30.8% of nurses reported having a good night's sleep, with 69.2% of nurses reporting poor or unsatisfactory sleep.

Significance of the study

The study was done with the aim of understanding the "Sleep Quality on Mental Health among Young Adults". Both sleep disturbances and mental health issues are public health burdens, with consequences for both the person and the community. Sleep and mental health are tightly linked, and they may even have reciprocal and mutually beneficial benefits, according to a growing body of psychological and physiological data (Zheng, Y., et al., 2021). Historically, mental health illnesses have been linked to sleep abnormalities. Although this is unarguable, recent research suggests that sleep issues or challenges may also play a role in the maintenance of existing mental health issues as well as the emergence of new ones (Seow, L. S. E., et al., 2020). Since young adulthood is a time when everyone tries their hardest to have a dignity and strive hard for their goals either neglect to sleep or view it as a natural procedure that is not necessary. Poor sleep quality has been found to contribute to both poor physical and mental health (Niyatisheokand, D., et al., 2016). In addition, it is rather typical for people to use their mobile phones just before going to bed (Radhakrishnan, B. L., et al., 2021). There are also findings that show that video gaming is a factor that lead to poor sleep quality and mental health (Altintas, E., et al., 2019). The youth also have personal and professional difficulties, which have an impact on their mental health and, in turn, their ability to sleep well. The number of difficulties relating to sleep, quality of life, and mental health grew significantly throughout the pandemic. It was discovered that during those times, sleep quality was a highly important indicator of mental health (Jain, A., 2021). The major goal of this study was to determine how much a person's sleep quality can impact their mental health and what adjustments or actions can be made to their lives to help them live peacefully. The study hypothesized that there is a significant effect of sleep quality on mental health among young adults.

METHODOLOGY

Research Design

The research design used in this study is correlational design and cross-sectional design.

Sample and Sampling

The study was conducted among 100 young adults who fall within the age range of 18-25 year. Convenience sampling was used for the study to select the sample. Only those who meet the following inclusion-exclusion criteria, are eligible for the study:

Inclusion criteria:

- Young adults of age 18-25 who are college going and working are included in the study.
- Knowledge of English Language.
- Only young adults from all over Kerala are included in the study.

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Exclusion criteria:

- Any other states other than Kerala were excluded.
- Individuals below 18 and above 25 years were excluded.

Research problem

- Will there be any difference in sleep quality, depression, anxiety, and stress based on gender?
- Will there be any relationship between sleep quality and depression, anxiety, and stress based on gender?

Objectives

- To find out if there is any significant difference in sleep quality among male and female young adults.
- To find out if there is any significant difference in depression among male and female young adults.
- To find out if there is any significant difference in sleep quality and anxiety among male and female young adults.
- To find out if there is any significant difference in sleep quality and stress among male and female young adults.
- To find out if there is any significant relationship between sleep quality and depression among young adults.
- To find out if there is any significant relationship between sleep quality and anxiety among young adults.
- To find out if there is any significant relationship between sleep quality and stress among young adults.

Hypotheses

- There is no significant difference in sleep quality among male and female young adults.
- There is no significant difference in depression among male and female young adults.
- There is no significant difference in anxiety among male and female young adults.
- There is no significant difference in stress among male and female young adults.
- There is no significant relationship between sleep quality and depression among young adults.
- There is no significant relationship between sleep quality and anxiety among young adults.
- There is no significant relationship between sleep quality and stress among young adults.

Procedure

The sample used in this study include 100 young adults from Kerala. They will be selected on the basis of the inclusion-exclusion criteria. An informed consent was obtained from the respondents before collecting the data. Ethical consideration was maintained. Details of the participants were kept highly confidential and will only be used for academic purposes. The subjects are informed that they have the liberty to choose to drop out of the study at any given time. The study will include responses from participants living in Kerala. Convenience sampling is administered, which is a type of non-probability sampling that involves the process of drawing the sample from a portion of the population that is most

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accessible and close at hand. Questionnaire regarding sleep quality and mental health were distributed to the participants. The scale was administered to the participants through google forms. Appropriate statistical tools were used for finding the correlation. The data included responses from 100 young adults falling between the age range of 18-25. The data was processed in Microsoft Excel and the statistical analysis was done using IBM SPSS Statistics 20. Based on this, Pearson's correlation was also administered.

Tools

The variables of the present study were measured by using the following tools.

1. Social demographic data sheet

It includes name/initials, age, gender, education qualification, family type, hours of sleep, and usage of mobile phones/laptops in bed.

2. The Sleep Condition Indicator by Colin A. Espie (2014)

The Sleep Condition Indicator (SCI), an eight-item rating scale, was created to screen for insomnia disorder based on DSM-5 criteria. Each item is graded on a five-point scale (0–4), with lower scores suggesting criteria for insomnia disorder. A total score between 0 and 32 is possible; higher numbers denote better sleep.

3. DASS-21 by Lovibond, S.H. & Lovibond, P.F. (1995)

The Depression, Anxiety and Stress Scale - 21 Items (DASS-21) is a set of three self-report scales designed to measure the emotional states of depression, anxiety and stress. Each of the three DASS-21 scales contains 7 items, divided into subscales with similar content. Scores for depression, anxiety and stress are calculated by summing the scores for the relevant items. Scores on the DASS-21 will need to be multiplied by 2 to calculate the final score.

RESULT AND DISCUSSION

The results of the data analysis that was used to describe the sample and address the research questions and associated hypotheses are presented in this chapter.

Results of hypothesis testing are given below:-

H1: There is no significant difference in sleep quality among male and female young adults.

Table 1 M, SD, and Difference in Sleep Quality based on Gender

Variable	Female (N=50)		Male (N=50)		t
	M	SD	M	SD	
Sleep Quality	23.92	5.42	23.42	6.92	0.40

p> .05

Table 1 shows the mean, SD and t-value obtained in sleep quality among male and female young adults. Results show that t-value of sleep quality is 0.40 and the mean and standard deviation of sleep quality among females is 23.92 and 5.42 respectively. The mean and standard deviation of sleep quality among males is 23.42 and 6.92 respectively. In order to test the significant difference between two groups, t-test was employed. And it was found that there is no significant difference in sleep quality among male and female young adults. Thus the hypothesis is accepted.

H2: There is no significant difference in depression among males and females

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Table 2 M, SD, and Difference in Depression based on Gender

Variable	Female (N=50)		Male (N=50)		t
	M	SD	M	SD	
Depression	10.16	8.62	10.76	9.66	0.32

$p > .05$

Table 2 shows the mean, SD and t-value obtained in depression among male and female young adults. Results show that t-value of depression is 0.32 and the mean and standard deviation of depression among female is 10.16 and 8.62 respectively. The mean and standard deviation of depression among males is 10.76 and 9.66 respectively. In order to test the significant difference between two groups, t-test was employed. And it was found that there is no significant difference in depression among male and female young adults. Thus, the hypothesis is accepted.

H3: There is no significant difference in anxiety among male and female young adults.

Table 3 M, SD, and Difference in Anxiety based on Gender

Variable	Female (N=50)		Male (N=50)		t
	M	SD	M	SD	
Anxiety	10.24	9.48	8.88	7.73	0.78

$p > .05$

Table 3 shows the mean, SD and t-value obtained in anxiety among male and female young adults. Results show that t-value of anxiety is 0.78 and the mean and standard deviation of anxiety among female is 10.24 and 9.48 respectively. The mean and standard deviation of anxiety among males is 8.88 and 7.73 respectively. In order to test the significant difference between two groups, t-test was employed. And it was found that there is no significant difference in anxiety among male and female young adults. Thus, the hypothesis is accepted.

H4: There is no significant difference in stress among male and female young adults.

Table 4 M, SD, and Difference in Stress based on Gender

Variable	Female (N=50)		Male (N=50)		t
	M	SD	M	SD	
Stress	11.16	8.87	11.88	9.02	0.40

$p > .05$

Table 4 shows the mean, SD and t-value obtained in anxiety among male and female young adults. Results show that t-value of stress is 0.40 and the mean and standard deviation of stress among female is 11.16 and 8.87 respectively. The mean and standard deviation of stress among males is 11.88 and 9.02 respectively. In order to test the significant difference between two groups, t-test was employed. And it was found that there is no significant difference in stress among male and female young adults. Thus, the hypothesis is accepted.

Table 5 N, M, SD and Correlation for sleep quality, depression, anxiety, stress

Variables	n	M	SD	1	2	3	4
1. Sleep quality	100	23.67	6.19	-			
2. Depression	100	10.46	9.11	-.575**	-		
3. Anxiety	100	9.56	8.63	-.592**	.718**	-	
4. Stress	100	11.52	8.90	-.592**	.766**	.745**	-

** Correlation is significant at the 0.01 level (2-tailed).

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Depression, anxiety, and stress are negatively correlated with sleep quality. Thus, the hypotheses stating the relationship of sleep quality with the variables is rejected. This shows that there is a significant relationship between sleep quality and depression, anxiety, and stress. The correlation is significant at the 0.01 level, 2 tailed. (Stranges, S. 2021).

SUMMARY AND CONCLUSION

The purpose of the study was to assess the Sleep Quality on Mental Health among young adults of Kerala. The population consisted of only young adults aged from 18 to 25, also only from Kerala. After collecting the data, the raw scores were statistically analyzed. As the table 1 illustrated, the mean, standard deviation and t value were obtained in sleep quality among males and females. The results show that there is no significant difference in sleep quality among male and female young adults. Thus, the hypothesis stating that there is no significant difference in sleep quality among male and female young adults is accepted. Similarly, table 2, table 3 and table 4 also shows mean, SD and t value obtained in depression, anxiety, and stress respectively among male and female young adults. All the three results indicate that there is no significant difference in depression, stress, and anxiety among male and female young adults. Pearson correlation was used to find if there is any significant relationship between sleep quality and the respective variables among young adults. Table 5 shows the results of correlation between sleep quality and depression, anxiety, and stress respectively. All the three results show that there is significant relationship between them. Therefore, the hypotheses were rejected. The correlation is significant at 0.01 level. The previous studies have found that the symptoms of depression, anxiety, and stress is prevalent to poor sleep quality (Yun, H. J., 2016).

Findings

- There is no significant difference in sleep quality among male and female young adults.
- There is no significant difference in depression among male and female young adults.
- There is no significant difference in anxiety among male and female young adults.
- There is no significant difference in stress among male and female young adults.
- There is a significant relationship between sleep quality and depression among young adults.
- There is a significant relationship between sleep quality and anxiety among young adults.
- There is a significant relationship between sleep quality and stress among young adults.

Implications of the study

There is a direct causal relationship between sleep quality and mental health of adults. A poor sleep quality is directly related to poor mental health. Some factors which contributed to poor sleep quality in some adult groups were usage of mobile phone in bed, irregular working hours, disruption of sleep-wake cycle, lack of physical activity, stress related to finances, job insecurity, underlying health conditions. Clinicians and psychologists can investigate their sleep quality and patterns to help them deal with their mental health issues more effectively. They can provide their patients with practices and techniques to enhance their sleep quality, like sleep hygiene and relaxation techniques.

Limitations of the study

The sample size was limited to 100. A large sample would give under scope for generalizing the result. As the study was time bound and had to be completed in limited period of time the sample size and area was restricted. Only two populations were added in this study for the purpose of comparison.

CONCLUSION

The study was done with the aim of understanding the role of sleep quality on mental health among young adults. The study concluded that sleep quality is a significant predictor of mental health. There is a negative correlation in sleep quality with depression, anxiety, and stress. This means that as the quality of sleep decreases, the mental health issues increases. The results also show that there is no significant difference in sleep quality based on gender. Clinicians and psychologists can investigate their sleep quality and patterns to help them deal with their mental health issues more effectively. They can provide their patients with practices and techniques to enhance their sleep quality, like sleep hygiene and relaxation techniques.

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Conflict of Interest

The author(s) declared no conflict of interest.

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