

Quality of Sleep in Young Adults in COVID-19

Nisha Pagaria^{1*}, Nishtha Madan²

ABSTRACT

COVID-19 crisis has created a pandemic in our lives and has resulted in diversity of emotions that people are facing and feeling these days. The major impacts of this pandemic are on physical and mental health. Sleep is needed for both the physiological and psychological functions to work properly. The objective was to study the quality of sleep in young adults and gender differences in Covid-19. Using purposive sampling, the sample size consisted of 110 subjects (Male = 55, Female = 55). The instrument used for the study was Pittsburgh Sleep Quality Index. It assesses sleep quality over a time period of one month. The mean score and standard deviation are 5.84 and 3.14 respectively. The sleep quality in COVID-19 has been found poor in young adults. Then, the t-test was conducted to observe the gender difference in quality of sleep. The results came out to be that there is no significance difference between male and female subjects aged between 18-25 years in quality of sleep in young adults in COVID-19.

Keywords: *Sleep Quality, Young Adults, Gender Differences in Quality of Sleep, COVID-19*

COVID -19 is a global crisis that has created a pandemic in our lives and has resulted in diversity of emotions that people are facing and feeling these days. The major impacts of this pandemic are on physical and mental health [sleeping pattern, eating pattern, stress, anxiety, depression and Obsessive-Compulsive Disorder (OCD) are some of the areas which are widely faced and studied nowadays in this pandemic]. Beck F., Léger D., Fressard L, et al (2020) conducted a study in France on how COVID-19 pandemic is associated with sleep problems. Their findings came out to be that younger people are more vulnerable with sleep problems than elderly people.

Marelli S., Castelnuovo A., Somma A., et al (2020) conducted a study on the effect of COVID-19 lockdown on sleep pattern in college students and management staff. Their findings came out to be that they found rise in hours spent in bed, latency in sleep, and wake-up time amid before and during COVID-19 crisis and a breaking down rest quality and a sleeping disorder indication. The effect of lockdown was discovered more prominent in students than in laborers, and in females than in males.

¹Amity University, Delhi, India

²Amity University, Delhi, India

*Corresponding Author

Received: March 31, 2021; Revision Received: May 16, 2021; Accepted: June 03, 2021

Quality of Sleep in Young Adults in COVID-19

Sleep is dependent on many factors and one of the common factors due to which an individual can't sleep is overthinking i.e., having deep, intense and unwanted thoughts that can bother an individual due to which individual's sleep is disturbed and decreased. So, sleep is fundamental for a person's prosperity and thriving, as showed by the National Sleep Foundation (NSF). Huge number of people doesn't get enough rest and many of the individuals experiences the odd and hazardous impacts of not taking proper rest. For instance, contemplates drove by the NSF (1999-2004) reveal that in any occasion 40 million Americans experience the false impacts of in excess of 70 different rest issue and 60 percent of adult beings witness only 3 days of proper sleep out of 7 days. Koninck D.J., Gagnon P., Lallier S., (1983) conducted a study on Sleep Positions in the Young Adult and their Relationship with the Subjective Quality of Sleep in which they took a sample of 16 undergraduate students in which 8 where good sleepers and 8 were bad sleepers. Through cameras they were observed for 4 consecutive nights for their sleep quality, to observe their movements and their change in positions during sleep. The students who were having poor quality of sleep moved more than the ones who were having good quality of sleep. The results of this study suggested that sleep position is an important sleep variable for the quality of sleep.

Mostly these kinds of issues remain untreated and unattended. In addition to this, more than 50 percent of adult's experience daytime tiredness. Every individual need rest to work efficiently. According to researches, the appropriate time to sleep should be eight hours and working hours should be sixteen hours. Regardless, some of the existing beings work rigorously for long hours, only with a small 6 hours rest break. Moreover, contrary to ordinary dream, the necessity for rest doesn't diminish with age but the sleeping time can diminish accordingly. What really matters is quality of sleep not quantity of sleep.

Inappropriate sleep or deprivation of sleep is positively not a specific susceptibility. It is ordinarily the outcome of various sicknesses and life conditions which can cause its own signs and surprising shortcoming results. Absence of rest suggests that an individual is not getting a sufficient amount of rest or sleep. The proper amount of sleep required by an adult is marked by 7 to 8 hours, this increases their efficiency at social, professional and personal levels without any constraints.

When the sufficient amount of sleep is not attained, it can lead to various problems at all the levels of human existence. These can link to unavoidable interruption while completing tasks, lack of regard, being less prepared to battle, and even mental scenes and wretchedness. Lack of sleep is positively not a major infirmity. Absence of rest suggests unhealthy lifestyle of way of living. Sleep is something that everybody needs. It is needed for both the physiological and psychological functions to work properly. Without no sleep or proper sleep our day to day functioning gets ruined.

Physiologically it directly at first hampers our immune system i.e., a major role player in protecting us from many diseases and viruses in the environment. Without proper functioning of the immune system one's life span gets deduced by almost 20 years or so. Psychologically it leads to mid-night anxiety, panic attacks and eventually depression. With it prolong effect it can also lead to Schizophrenia. In worst to worst case it can also lead to Amnesia.

It has been proven with the help of many researches that an adult requires about 7-8 hours of sleep daily for the healthy functioning of the mind and body. Sleeping time decreases with

Quality of Sleep in Young Adults in COVID-19

aging. Sleep becomes more fragmented and lighter. Changes can be seen in the inner circadian rhythm of the body.

Liu S., Wing K.Y., Hao Y., et al (2019) conducted a study on the relationship of longer hours of mobile use with sleep conflicts and mental distress in technical college students: a prospective cohort study. Many young adults were assessed using various questionnaires. Long-time mobile-phone use (LTMPU) predicts the new frequencies of most rest unsettling influences and mental pain, while cessation of LTMPU is related with improvement of these issues. In addition, there are bidirectional relationship between the term of cell phone use and different rest and mental results. Besides, some unfortunate conditions, issue and maladies can likewise mess rest up, including:

- Mishaps and inappropriate sleeping styles
- Hypertension or blood pressure and increased heart related issues.
- Emotional or wellbeing issue (wretchedness, bipolar disorder)
- Obesity; metabolic condition and diabetes Alcohol and medication misuse

Symptoms of Sleep Deprivation – From the beginning, absence of rest can cause some minor symptoms, yet after some time these signs may end up being dynamically authentic. Starting absence of rest symptoms may include:

- Feeling of drowsiness and sluggishness.
- Inability to concentrate
- Debilitated memory
- Diminished physical quality
- Degrading ability to fight off defilements

As per our knowledge goes, this study of ours is the first to study the gender differences in quality of sleep in young adults in India, Delhi-NCR in the time of COVID-19.

Objective

1. To study the Quality of Sleep in Young Adults in COVID-19.
2. Gender Differences in Pittsburgh Sleep Quality Index in young adults.

Hypothesis

There will be a significant difference between male and female young adults in Pittsburgh Sleep Quality Index in COVID-19.

METHODOLOGY

Sample

The sampling technique for this research used was purposive sampling. The sample for the study consisted of young adults. The sample size was 110 subjects (Males =55 and Females =55) aged between 18-25 years.

Tool

The instrument used for the study was Pittsburgh Sleep Quality Index.

Quality of Sleep in Young Adults in COVID-19

Pittsburgh Sleep Quality Index (PSQI) - A self-report questionnaire/survey that evaluates the quality of sleep in the time duration of one month. It was developed by in 1988, by Buysse and his colleagues (Researchers at the University of Pittsburgh), to create a standardized measure intended to collect reliable data about the abstract idea of individuals' rest propensities and give an unmistakable file that the both the clinicians and patients can utilize, it comprises of 19 distinct things, making 7 segments that produce one global score (range 0 to 21). The internal consistency and reliability coefficient of PSQI is Cronbach's alpha = 0.73 for its all 7 components. Scoring is done on a scale of 0 to 3 for each response given, in which 3 represents the negative extreme on the Likert Scale. "Poor" sleep is said to be for those with a global score of "5" and above. PSQI being a standardized tool for survey, it is used by clinicians and researchers to ease out their work. It is used for various populations.

In this research, the Independent Variable is gender and Dependent Variable is Sleep Quality.

RESULT

There were total 110 participants (Male = 55 and Female = 55). Means and standard deviation were found out as follows:

Table1: Comparison of gender difference on Pittsburgh Sleep Quality Index

Sleep Quality	Males		Females		t (108)	p
	M	SD	M	SD		
	5.41	3.11	6.27	3.14	1.98	0.15

T-Test was conducted to check whether there was a significance difference between Male and Female subjects in sleep quality. It was found that there was no significant difference for gender, $t(108) = 1.98$, $p = 0.15$, female ($M = 6.27$, $SD = 3.14$) and male ($M = 5.41$, $SD = 3.11$). Therefore, the alternative hypothesis is rejected as there is no significance difference found between male and female subjects in sleep quality.

DISCUSSION

The aim of this research study was to assess the sleep quality of young adults (aged between 18-25years) in the times of COVID-19. The Pittsburgh Sleep Quality Index (PSQI) was used for this purpose and a sample of 110 participants in total was collected (55 males and 55 females). The results reflected that from the overall sample 62.72% of the population has poor sleep quality ($PSQI > 5$). Although no significant difference was there between the observed sleep quality of males and females as per the T-Test conducted and showed in Table-1. The major reason for no significant difference in the sleep quality of males and females could be that irrespective of what schedule they followed during earlier times where everyone had their fixed roles to play, now everyone is in the same situation at their homes and working from home through digital platforms; every work has come at par. Young adults are getting more into overthinking irrespective of their gender. Earlier where everyone had a role to play and a time chart to follow, everyone had a particular rising time and sleeping time and hence were more efficient, but now that the schedules are all messed up with everything closed in this period of lockdown everyone whether males or females have more or less same jobs to perform and hence the sleep quality is also somewhat similar to each other. Besides this, the overall sleep quality of the sample population taken was found to be poor. The main reason of hampered sleep quality was found out to be disturbed sleep patterns due to improper routines and excessive screen use. Also, due to lack of physical activity and

Quality of Sleep in Young Adults in COVID-19

increased screen time people found it difficult to get quality and proper sleep. The most prominent and universal reasons for sleep deprivation being more in Middle-Aged adults (35-50yrs) could be that around and about this age group every adult(middle-age) suffers from a Mid-life crisis. This is the age group that also suffers from maximum levels of stress and anxiety. The very possible reason for it can be that around this age group the adult's children are also in the settling age and also their parents are aging drastically. The fear of losing their parents combined with the fear of the child's career leads to off charts existential levels of stress, panic and anxiety.

Hence, the sleep quality of young adults is quite disrupted during the times of COVID-19 being under lockdown. As specified by a task force of the European CBT-I Academy (Altena, E., Baglioni, C., Espie, A.C., et al., 2020), during entire lockdown people's rest propensities are tested by various elements like diminished exposure to daylight, diminished physical action and mental pain. Salehinejad, M. A., Majidinezhad, M., Ghanavati, E., et al (2020) conducted a study on negative impact of COVID-19. The results showed that the sleep quality was poor for majorly all participants (increased sleep disturbances, greater daily dysfunctions because of low quality of sleep) and lesser recognised sleep quality (lower subjective sleep quality, longer time taken to fall asleep at night) in home quarantine. Hinze, A., Glaesmer, H., Brähler, E., et al (2017) conducted a study on the general population for their sleep quality. Their findings came out to be that females showed significantly more sleep problems than males. Cellini, N., Canale, N., Mioni, G., et al (2020) discovered that the decreased sleep quality was more grounded for individuals with a propelled degree of depression, tension and stress symptomatology and furthermore connected with an expanded sentiment of expansion of time. Valero, M.J.J., Selva, M.J.M., Couto, B.R.D., (2017) conducted a study on age and gender differences on the occurrence of poor sleep quality in adults. 38.2% of the sample had poor sleep quality. The occurrence of poor sleep quality is high amid adults, especially in women.

Limitations

The limitation of the present study is that the smaller number of samples, so it is recommended to carry out research in relation to gender difference in quality of sleep on a large sample size. It is recommended that further studies should be done on a larger sample to find out that there is/isn't significance difference in gender in terms of test anxiety.

REFERENCES

- Altena, E., Baglioni, C., Espie, C. A., Ellis, J., Gavrilloff, D., Holzinger, B., ... & Riemann, D. (2020). Dealing with sleep problems during home confinement due to the COVID-19 outbreak: Practical recommendations from a task force of the European CBT-I Academy. *Journal of Sleep Research*, e13052.
- Beck, F., Léger, D., Fressard, L., Peretti-Watel, P., Verger, P., & Coconel Group. (2020). Covid-19 health crisis and lockdown associated with high level of sleep complaints and hypnotic uptake at the population level. *Journal of Sleep Research*, e13119.
- Cellini, N., Canale, N., Mioni, G., & Costa, S. (2020). Changes in sleep pattern, sense of time and digital media use during COVID-19 lockdown in Italy. *Journal of Sleep Research*, e13074.
- De Koninck, J., Gagnon, P., & Lallier, S. (1983). Sleep positions in the young adult and their relationship with the subjective quality of sleep. *Sleep*, 6(1), 52-59.
- Hinze, A., Glaesmer, H., Brähler, E., Löffler, M., Engel, C., Enzenbach, C., ... & Sander, C. (2017). Sleep quality in the general population: psychometric properties of the

Quality of Sleep in Young Adults in COVID-19

- Pittsburgh Sleep Quality Index, derived from a German community sample of 9284 people. *Sleep medicine*, 30, 57-63.
- Liu, S., Wing, Y. K., Hao, Y., Li, W., Zhang, J., & Zhang, B. (2019). The associations of long-time mobile phone use with sleep disturbances and mental distress in technical college students: a prospective cohort study. *Sleep*, 42(2), zsy213.
- Madrid-Valero, J. J., Martínez-Selva, J. M., Couto, B. R. D., Sánchez-Romera, J. F., & Ordoñana, J. R. (2017). Age and gender effects on the prevalence of poor sleep quality in the adult population. *Gaceta sanitaria*, 31, 18-22.
- Marelli, S., Castelnuovo, A., Somma, A., Castronovo, V., Mombelli, S., Bottoni, D., ... & Ferini-Strambi, L. (2020). Impact of COVID-19 lockdown on sleep quality in university students and administration staff. *Journal of Neurology*, 1-8.
- Salehinejad, M. A., Majidinezhad, M., Ghanavati, E., Kouestanian, S., Vicario, C. M., Nitsche, M. A., & Nejati, V. (2020). Negative impact of the COVID-19 pandemic on sleep quantitative parameters, quality, and circadian alignment: Implications for psychological well-being and emotional regulation. *medRxiv*.

Acknowledgement

The authors cherished all those who participated in the study and guided to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Pagaria N. & Madan N. (2021). Quality of Sleep in Young Adults in COVID-19. *International Journal of Indian Psychology*, 9(2), 1219-1224. DIP:18.01.128.20210902, DOI:10.25215/0902.128