

Comparative Study

A Comparative Study of Sleep Quality and Psychological Well-Being Among Competitive Exam Aspirants and Non-Aspirants

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ABSTRACT

This research paper aims to understand the difference between sleep quality and psychological well-being among college students who are competitive exam aspirants and non-aspirants. It is seen in various studies that sleep pattern is disturbed during the examination period which leads to a disturbed state of mind. To understand this phenomenon in a specific niche of competitive exams, this study was conducted. The tools used were the Pittsburgh Sleep Quality Index (PSQI) and the Psychological Wellbeing scale (an 18-item Adaptation of Ryff's scale 42-item scale) to obtain data through convenient sampling. The data was collected from students aged 18 to 25. This study had a quantitative correlational study design. The correlation was found using Pearson's Product Moment method and the categorical differences were found using an independent t-test. It was found that there is no statistically significant relationship between Sleep Quality and Psychological Well-being among competitive exam aspirants. Additionally, there was no difference between aspirants and Non-aspirants concerning both variable.

Keywords: *Sleep Quality, Psychological well-being, Competitive exam, Aspirants*

Competitive exams are tests designed to evaluate a candidate's knowledge, skills, and abilities in a particular subject area. These exams are usually used to determine the selection or admission of candidates to academic programs, employment opportunities, or other competitive environments. Examples of competitive exams include standardized tests such as the SAT, GRE, GMAT, and LSAT for college admissions, as well as civil service exams for government positions, licensing exams for professionals such as doctors and lawyers, and entrance exams for graduate programs. Preparing for a competitive exam often requires a significant amount of time and effort, including studying the relevant subject matter, practising sample questions, and developing test-taking strategies. Indian competitive exams are known to be extremely tough resulting in only a few getting selected. In India, all the national-level exams are conducted by National Testing Agency (NTA) and the state-level exams are conducted by a selected University selected by the government. These exams can be extremely stress-inducing due to the following reason:

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Received: April 20, 2023; Revision Received: June 09, 2023; Accepted: June 11, 2023

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- With a relatively youthful population, India is the second-most populated country in the world. Thus, the number of learners taking competitive tests is continuously rising as a consequence of the growing population. The number of seats, however, is not growing at an equivalent proportion.
- The exams are the source of jobs for a good percentage of candidates. Exams like SSC, SSB, GATE, and UPSC. A prospective cross-sectional study design was used to measure the degree of depression, anxiety, stress, insomnia, loneliness, and suicidal behaviour during the academic year in the study. This study offered a unique viewpoint on the feelings, attitudes, and actions that higher-education learners and aspirants display in response to psychological distress. This study has demonstrated that students and aspirants experience varying levels of mental discomfort with HRQOL.

Education: For some students, it's a matter of further education. Hence scoring high percentile means securing their seat in a well-known and reputed institution. Adding on to this point, parental pressure for the students to do well in exams and secure a good rank adds to the anxiety students experience. A study conducted by Nazma and Joseph determined the correlation between perceived social support and resilience. Resilience was found to be low, and there was a substantial association between resilience and perceived social support. Low resilience among candidates for competitive exams is a sign of the stress and worry they are under. It might cause them to experience a range of psychosocial and mental health issues.

According to a study conducted by the National Institute of Mental Health and Neuroscience (NIMHANS), as mentioned in a book titled *Mental Health and Well-being* by Navin Kumar, students often suffer from psychological disorders such as anxiety and depression due to the non-beneficial and non-conducive environments. This often starts because of slight changes in the sleep schedule which, with time turns into sacrificing sleep to meet deadlines. Thus, impacting the psychological well-being of this particular demographic.

Purpose of the Study

The rationale is to conduct a comparative analysis of the sleep quality and psychological well-being of competitive exam aspirants and non-aspirants. The study aims to investigate whether the stress and pressure of preparing for competitive exams have an adverse effect on sleep quality and psychological well-being. Additionally, the study aims to explore the potential differences between competitive exam aspirants and non-aspirants in terms of their sleep quality and psychological well-being. The outcomes of this study could help to shed light on the impact of competitive exam preparation on an individual's overall health and well-being and could also inform the development of targeted interventions to improve the sleep quality and psychological well-being of individuals preparing for competitive exams. Incorporating research on gender differences in this study provides a more comprehensive understanding of the potential impact of competitive exam preparation on sleep quality and psychological well-being. For example, existing research has found that females are more likely to experience sleep disturbances and symptoms of anxiety and depression compared to males (Lee S.Y., et. al 2013). Therefore, analyzing the potential gender differences in sleep quality and psychological well-being among competitive exam aspirants and non-aspirants could help to identify potential vulnerabilities and inform targeted interventions to improve well-being. Additionally, it could help to determine whether the effects of competitive exam preparation on sleep quality and psychological well-being are different for males and females. By examining gender differences in this study, a better understanding can be

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obtained concerning how gender impacts an individual's response to competitive exam preparation and the potential effects of gender-sensitive measures to enhance the quality of sleep and psychological well-being among competitive exam aspirants.

METHOD

Aim:

To understand the relationship between sleep quality and psychological well-being among college students who are appearing for competitive exams.

Objectives:

1. To study the relationship between sleep quality and psychological well-being among competitive exam aspirants
2. To compare and understand the difference in sleep quality among male and female aspirants.
3. To compare and understand the difference in psychological well-being among male and female aspirants.
4. To compare and understand the difference in sleep quality among aspirants and non-aspirants.
5. To compare and understand the difference in psychological well-being among aspirants and non-aspirants.

Hypothesis

- H₀₁: There is no statistically significant relationship between Sleep Quality and Psychological well-being among Competitive Exam Aspirants
- H₀₂: There is no statistically significant difference in Sleep Quality among Male and Female Aspirants.
- H₀₃: There is no statistically significant difference in Psychological Well-being among Male and Female Aspirants.
- H₀₄: There is no statistically significant difference in Psychological Well-being among Aspirants and Non-Aspirants
- H₀₅: There is no statistically significant difference in Psychological Well-being among Competitive exam Aspirants and Non- Aspirants

Sample

Competitive exam aspirants will be defined as individuals who are currently preparing for competitive exams such as JEE Mains/Advanced, NEET-UG/PG, UPSC, UGC/CSIR-NET, IELTS, GATE, etc. or have appeared for such exams within the past 2 months or will be taking them in the upcoming 6 months and simultaneously are currently pursuing their formal education. Non-aspirants will be defined as individuals who are not currently preparing for competitive exams and have not appeared for such exams within the past 2 months or will not be taking any exams in the next 6 months. The participants must fall in the age range of 18-25. This study recruited a sample of 160 individuals comprising 80 males and 80 females; 80 aspirants and 80 non-aspirants.

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Tools

Sl No	Variable	Tool	Author	Reliability	Validity
1	Sleep Quality	Pittsburgh Sleep Quality Index (PSQI)	Buysse, DJ, Reynolds CF, Monk TH, Berman SR, Kupfer DJ (1989)	0.85	0.72
2	Psychological Well-being	Ryff's Psychological Wellbeing (18 items)	Ryff, C. D., & Keyes, C. L. M. (1995)	0.83	0.88

Design

This study was a quantitative correlational study exploring the correlation between sleep quality and psychological well-being among learners who are aspiring to take competitive exams. At the same time, this study explores the difference caused by gender in both variables. The descriptive statistics were computed using the SPSS software.

RESULT

Based on the results of the study, there is no statistically significant relationship between Sleep Quality and Psychological well-being among Competitive Exam Aspirants ($r=-.014$). Hence the null hypothesis H_{01} is accepted ($r=-0.14$) as shown in Table 1

Table 1: Shows the descriptive statistics and the Pearson correlation coefficient for competitive exam aspirants.

	N	Sleep Quality
Psychological Wellbeing	80	-0.14

An independent sample t-test was conducted on male and female competitive exam aspirants to understand the difference between sleep quality and psychological well-being in each category. It was seen that there was no significant difference in sleep quality between male aspirants ($M=7.400$ and $SD= 3.20$) and female aspirants ($M=8.450$ and $SD=3.8361$). Hence Null hypothesis H_{02} is accepted ($t=-1.329$). In the tables above it is also seen that there's no statistically significant difference in psychological well-being between male ($M=86.300$ and $SD= 15.9135$) and female aspirants ($M=86.675$ and $SD=12.8030$). Hence Null Hypothesis H_{03} is accepted ($t=-0.426$), as shown in Table 2.

Table 2: Showing descriptive statistics of Competitive exam aspirants and t-test values

	Gender	N	Mean	T value
Sleep Quality	Male	40	7.400	-1.329
	Female	40	8.450	
Psychological Wellbeing	Male	40	86.300	-0.426
	Female	40	86.675	

An independent sample t-test was conducted on competitive exam aspirants and Non-aspirants to understand the difference between sleep quality and psychological well-being in each category. It was seen that there was no significant difference in sleep quality between aspirants ($M=7.925$ and $SD= 3.5499$) and non-aspirants ($M=7.013$ and $SD=3.6300$). Hence Null hypothesis H_{04} is accepted ($t=0.548$). In the tables above it is also seen that there's no

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statistically significant difference in psychological well-being between aspirants ($M=86.988$ and $SD=14.3672$) and non-aspirants ($M=86.750$ and $SD=14.1712$). Hence Null Hypothesis H_{05} is accepted ($t=1.607$), as shown in Table 3.

Table 3: Showing Descriptive Statistics among all participants.

	Aspirants	N	Mean	T value
Sleep Quality	Yes	80	7.925	0.548
	No	80	7.013	
Psychological Wellbeing	Yes	80	86.988	1.607
	No	80	86.750	

DISCUSSION

This research was carried out to understand the linkage between sleep quality and psychological well-being among aspirants and non-aspirants. Even though it is constantly seen that these particular demographics' sleep quality and mental well-being are impacted the most, in this particular study it was seen that there were no significant differences between the two categories. One of the major reasons could be the similar stress levels experienced by the students. The aspirants and non-aspirants may experience similar levels of stress and anxiety in their daily lives, which could affect their psychological well-being. For instance, non-aspirants might have work-related or personal stressors that are comparable in intensity to the stress experienced by aspirants preparing for exams.

Additionally, another important factor to be considered is individual differences. Each individual has a unique personality, coping mechanisms, and social support systems that can affect their psychological well-being. Some people may be naturally more resilient and less susceptible to stress, while others may be more vulnerable to the negative effects of stress. These individual differences could be similar among aspirants and non-aspirants. Aspirants and non-aspirants may use also similar coping strategies to deal with stress, such as exercise, meditation, or talking to friends and family.

This study tried to investigate the gender differences in sleep quality and psychological well-being among competitive exam aspirants. There was a mild difference seen: females had poorer sleep quality but the difference is not statistically significant. Male and female aspirants may have similar sleep habits, such as going to bed and waking up at similar times, maintaining a comfortable sleep environment, and avoiding stimulating activities before bed. If their sleep habits are similar, it could lead to similar sleep quality between the two groups. Moreover, male and female aspirants might experience similar levels of stress due to exam preparation, which could affect their sleep quality. If their stress levels are comparable, it could lead to similar sleep quality outcomes.

As a consequence of the factors mentioned above, it was also observed that there is no statistically significant relation between sleep quality and psychological well-being. Furthermore, the relationship between sleep quality and psychological well-being is bidirectional, meaning that poor sleep quality can lead to negative psychological outcomes, and negative psychological outcomes can lead to poor sleep quality. The study might not have captured the bidirectional relationship between sleep quality and psychological well-being, leading to a lack of correlation.

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Another factor influencing the study could be the COVID-19 pandemic. The population may not have recovered from the disturbances caused during that period, i.e., a prolonged impact, causing them to resort to different coping strategies such as excessive usage of social media and in case of disturbed emotions resorting to sleep as a coping strategy.

Additionally, competitive entrance exams happen either once a year or bi-annually unlike regular college exams. The chances of these competitive exams actively impacting sleep quality are slightly less. Even though there are not many studies on competitive entrance exam aspirants, studies support the fact that exams do impact the quality of sleep and mental well-being. Overall competitive exams are stressful scenarios and can impact individuals in different ways.

Limitations:

- There could have been confounding variables such as caffeine intake which impact both sleep and well-being hence influencing the study results
- Randomly responding to the questionnaire.
- The population was largely from one location hence, the population is presumed to have similar behaviour patterns which could have influenced the variation in results.

Recommendations:

Further research can be conducted considering the following aspects:

- Research can be further conducted on students who have taken a year drop or on the ones who are dedicating their time exclusively for competitive exam purposes.
- Factors such as Grit, Resilience, Perceived social support and other psychological variables can be studied because these are the base factors which impact an individual's attitude towards their career.

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Acknowledgement

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Mokashi, S. N. & Vigraanth, B., KG (2023). A Comparative Study of Sleep Quality and Psychological Well-Being Among Competitive Exam Aspirants and Non-Aspirants. *International Journal of Indian Psychology*, 11(2), 2025-2031. DIP:18.01.205.20231102, DOI:10.25215/1102.205