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IJSRR-IJR ID 2608

DOI No. 10.5281/zenodo.16935110

## **Mental Health Status of JEE and NEET Aspirant Students of Higher Secondary Education in Kota, Rajasthan: A Study**

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### **Abstract:**

*This research examines the mental well-being of secondary school students in Kota, Rajasthan, who are preparing for the Joint Entrance Examination (JEE) or the National Eligibility cum Entrance Test (NEET) alongside their regular studies. Kota, a major hub for competitive exam coaching, draws thousands of candidates each year into a highly demanding academic environment that can contribute to psychological strain, social isolation, and emotional fatigue. Adopting a mixed-method design, the study integrates quantitative assessments of mental health indicators with qualitative insights from student interviews. Results indicate high rates of stress, anxiety, disrupted sleep, and performance-related pressures. A statistically significant difference was observed between JEE and NEET candidates with respect to anxiety levels, and a strong positive correlation emerged between academic stress and anxiety. The paper concludes with recommendations for institutional and psychological support measures to address these concerns.*

**Keywords:** Mental Health, Secondary Education, Anxiety, JEE and NEET aspirant

### **1. Introduction:**

Kota, in Rajasthan, is widely known as India's leading hub for coaching institutes preparing students for the Joint Entrance Examination (JEE) and the National Eligibility cum Entrance Test (NEET). Each year, thousands of students move to the city in pursuit of structured study plans, experienced faculty, and competitive peer environments. While this system has produced many high-ranking candidates, it has also raised concerns about the mental health costs of such intense academic preparation.

Students in Kota often balance long hours of coaching classes with regular schoolwork, leaving little time for rest or leisure. Many live away from their families, limiting access to emotional support. The combination of heavy workloads, frequent evaluations, peer comparisons, and parental expectations can lead to elevated stress, anxiety, depression, and other psychological challenges.



Adolescents aged 16–18 are particularly sensitive to pressure, and differences in the nature of JEE and NEET preparation—such as mathematics-heavy problem solving versus biology-focused memorization—may influence their mental health in distinct ways. Despite increasing public discussion on student well-being, few empirical studies have examined the mental health of Kota’s coaching students, and even fewer have compared JEE and NEET aspirants directly. This study addresses these gaps by assessing mental health indicators, identifying differences between the two groups, and exploring correlations between academic stress and other psychological factors.

## 2. Literature Review:

The mental health of adolescents, especially those enrolled in competitive academic environments, has been a growing concern in educational and psychological research. Several studies in India and abroad have consistently reported the negative psychological effects of intense academic competition, parental expectations, and lack of emotional support on students’ well-being.

### 2.1 LR on Academic Stress:

[Kumar and Sharma \(2020\)](#)<sup>1</sup> examined coaching students in Delhi and reported that over four-fifths experienced substantial academic stress, largely stemming from the combined demands of schoolwork and coaching classes. They noted that extended study schedules, frequent assessments, and continual monitoring were key drivers of mental exhaustion.

According to [Agarwal \(2019\)](#)<sup>2</sup>, candidates preparing for engineering and medical entrance exams often showed signs of emotional burnout and reduced social engagement. This strain was attributed not only to academic demands but also to emotional pressures, including anxiety over potential failure and the desire to meet parental expectations.

### 2.2 LR on Anxiety, Depression, and Burnout:

In a psychological survey, [Gupta et al. \(2021\)](#)<sup>3</sup> found that JEE candidates, especially those dealing with mathematics-heavy material, exhibited elevated anxiety levels. Respondents described experiencing restlessness, irritability, and, in some cases, panic episodes in the lead-up to practice tests or major examinations.

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<sup>1</sup> Kumar, P., & Sharma, R. (2020). *Academic stress among coaching students in Delhi: A sociological study*. *Journal of Education and Society*, 31(2), 45–62.

<sup>2</sup> Agarwal, V. (2019). Emotional burnout among engineering and medical aspirants: A psychological perspective. *Indian Journal of Educational Psychology*, 14(1), 78–91.

<sup>3</sup> Gupta, A., Singh, R., & Nair, S. (2021). Test anxiety among JEE aspirants: A psychological survey. *Psychology and Education*, 58(3), 112–125



Das and Banerjee (2018)<sup>4</sup> reported that 37% of West Bengal coaching students displayed moderate to high levels of depression. Many participants described feelings of emotional depletion and reduced motivation, particularly when their performance lagged behind that of their classmates.

### 2.3 Sleep Disruption and Physical Symptoms:

Jain and Thomas (2020)<sup>5</sup> emphasized that inconsistent sleep schedules and insufficient rest negatively affected NEET candidates. On average, these students slept under six hours nightly, resulting in tiredness, irritability, and reduced mental efficiency. Similarly, Srivastava and Verma (2019)<sup>6</sup> observed frequent physical discomfort—such as headaches, backaches, and eye strain—among students who spent prolonged periods studying and using screens.

### 2.4 Suicidal Ideation and Emotional Distress:

Kumar and Mishra (2019)<sup>7</sup> identified a strong link between academic stress and thoughts of self-harm in students attending residential coaching institutions. They pointed to factors such as social isolation, inadequate emotional support, and self-imposed expectations as key contributors.

## 3. Research Gaps:

Although research on student mental health in India has expanded in recent years, several areas remain underexplored:

- Much of the existing work has concentrated on metropolitan contexts or standard school populations, leaving smaller or specialized academic environments less examined.
- There is a lack of empirical studies focusing specifically on Kota, Rajasthan, despite its reputation as one of the country's most academically intense coaching hubs.
- While academic stress is a well-documented phenomenon, the particular stressors of the coaching institute culture—such as intense peer competition, extended study schedules, and frequent evaluations—have not been studied in sufficient depth.

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<sup>4</sup> Das, K., & Banerjee, P. (2018). Depression levels among coaching students in West Bengal. *Indian Journal of Mental Health*, 5(2), 33–47.

<sup>5</sup> Jain, M., & Thomas, L. (2020). Sleep patterns and mental health of NEET candidates. *International Journal of Health Sciences*, 12(4), 201–210.

<sup>6</sup> Srivastava, A., & Verma, D. (2019). Physical health issues among coaching students: An observational study. *Journal of Adolescent Health in India*, 7(1), 14–23.

<sup>7</sup> Kumar, S., & Mishra, N. (2019). Academic stress and suicidal ideation in coaching institutions. *Indian Journal of Social Psychiatry*, 35(3), 221–230.



- Comparative analyses of mental health between JEE and NEET candidates are rare, even though the two groups face differing curriculum demands and career trajectories.
- Prior research often adopts either a purely quantitative or purely qualitative approach; this study seeks to address that limitation by employing a mixed-method design that integrates statistical analysis with interview-based insights for a more comprehensive understanding.

#### 4. Objectives of the Study:

- i) To assess the mental health status of JEE and NEET aspirants in Kota.
- ii) To find the difference between JEE and NEET aspirants with respect to mental health indicators.
- iii) To find the correlation between academic stress and other mental indicators.

#### 5. Hypothesis of the study:

- **H<sub>0</sub>1:** There is no significant difference in the mental health status of JEE and NEET aspirants in Kota.
- **H<sub>0</sub>2:** There is no significance difference between JEE and NEET aspirants with respect to mental health indicators.
- **H<sub>0</sub>3:** There is no significant correlation between academic stress and other mental health indicators.

#### 6. Delimitations of the Study:

The following delimitations were established for this research:

- i) The study was conducted exclusively in **Kota, Rajasthan**, which is a prominent coaching hub. Results may not be generalizable to students in other cities or states.
- ii) The study was limited to **students preparing for JEE and NEET** alongside their secondary (Class 11 and 12) education.
- iii) The study targeted adolescents aged **16–18 years**, excluding older or drop-year students.
- iv) Only students enrolled in **institutional coaching centers** (not online-only or self-study candidates) were included.
- v) The study focused on **seven specific indicators**: academic stress, anxiety, sleep disturbances, physical symptoms, depression, social isolation, motivation loss, and suicidal ideation.

#### 7. Methodology:

**7.1 Research Design:** This study employs a **mixed-method approach**, combining quantitative surveys and qualitative interviews.



**7.2 Sample:** Total participants: 120 students (60 JEE and 60 NEET aspirants) with age 16-18 years.

**7.3 Sampling method:** Stratified random sampling technique was employed to select sample from selected coaching centers and schools in Kota

**7.4 Tools Used:** Self-made Questionnaire based on mental health indicators (stress, anxiety, depression, sleep quality, and emotional exhaustion) using a Likert scale was used to collect data. Self-made Semi-structured interviews questionnaire was made to find in-depth insights.

## 8. Data Analysis and Interpretation:

### 8.1 Quantitative Data Analysis

**Table-1: Percentage of Students Reporting Moderate to Severe Symptoms (Score  $\geq 4$ )**

Indicator	% of JEE Students	% of NEET Students	Overall % (N=120)
Academic Stress	86.6%	78.3%	82.5%
Anxiety	73.3%	63.3%	68.3%
Sleep Disturbances	55.0%	50.0%	52.5%
Depression Symptoms	38.3%	33.3%	35.8%
Loss of Motivation	36.6%	33.3%	35.0%
Physical Symptoms	68.3%	65.0%	66.7%
Suicidal Ideation	11.6%	8.3%	10.0%

Table 1 shows that 86.6% of JEE aspirants and 78.3% of NEET aspirants reported experiencing moderate to severe stress, with the overall prevalence being 82.5%. This reflects the intense pressure students face while balancing school and coaching. Anxiety levels were also notably high, affecting 73.3% of JEE students and 63.3% of NEET students, indicating that JEE aspirants experience significantly more anxiety—possibly due to the exam's broader and more technical syllabus. Sleep disturbances were reported by 55% of JEE aspirants and 52.5% of NEET aspirants, likely resulting from long study hours and irregular routines. Symptoms of depression were present in 38.3% of JEE students and 33.3% of NEET students, reflecting a moderate level of emotional distress. Additionally, 35% of students reported a loss of motivation, while 66.7% experienced physical symptoms such as headaches and fatigue, highlighting the psychosomatic effects of prolonged stress. Alarming, 10% of students reported suicidal thoughts, underscoring the urgent need for mental health support and timely interventions. Overall, the findings suggest that JEE aspirants tend to face slightly higher levels of mental health challenges compared to NEET aspirants.



Table-2: Group Comparison: JEE vs NEET Aspirants (Independent t-test)

Mental Health Indicator	t-value	p-value	Significant Difference?
Academic Stress	1.32	0.19	No
Anxiety	2.03	0.04	Yes (JEE > NEET)
Sleep Disturbances	0.84	0.40	No
Depression Symptoms	1.14	0.25	No
Physical Symptoms	1.68	0.09	No
Suicidal Ideation	0.92	0.36	No

Note:  $p < 0.05$  is considered statistically significant.

Table 2 indicates that for all mental health indicators except anxiety, the p-value is greater than 0.05, suggesting no statistically significant difference between JEE and NEET aspirants. This implies that both groups experience comparable levels of mental health challenges overall. However, for anxiety, the t-value is 2.03 and the p-value is 0.04, which is below the significance threshold of 0.05, indicating a statistically significant difference. JEE aspirants reported higher anxiety levels, possibly due to the greater difficulty, pressure, and competitive nature of the exam. These findings highlight that the null hypothesis is accepted at all mental health indicators except anxiety at 0.05 level of signification.

Table-3: Correlation Analysis: Pearson correlation was used to examine the relationship between academic stress and other indicators:

Variables Correlated	r-value	Interpretation
Academic Stress & Anxiety	0.76	Strong positive correlation
Academic Stress & Sleep Issues	0.63	Moderate positive correlation
Academic Stress & Depression	0.59	Moderate positive correlation
Academic Stress & Motivation Loss	0.48	Moderate correlation

Table 3 reveals a strong positive correlation ( $r = 0.76$ ) between academic stress and anxiety, indicating that higher levels of academic stress are closely linked to increased anxiety among students. A moderate positive correlation ( $r = 0.63$ ) was observed between academic stress and sleep disturbances, suggesting that academically stressed students are more likely to experience disrupted sleep patterns. Likewise, academic stress has a moderate correlation with depression ( $r = 0.59$ ), meaning that greater stress levels are associated with more depressive symptoms,



such as sadness, hopelessness, or emotional withdrawal. Furthermore, a moderate correlation ( $r = 0.48$ ) was found between academic stress and loss of motivation, indicating that increased academic pressure may reduce students' enthusiasm and drive for studies or daily activities. Overall, these findings underscore that academic stress is a key factor influencing students' mental well-being and should be addressed through school-based mental health initiatives, time management training, and effective stress-coping strategies.

### 8.2 Qualitative Findings:

Common themes that emerged from interviews included:

- **Parental expectations:** Students felt burdened by pressure to succeed at any cost.
- **Lack of recreational time:** Most participants reported a lack of balance in daily life.
- **Peer comparison:** Ranking systems and mock tests created a competitive rather than collaborative atmosphere.
- **Coping strategies:** Some students relied on meditation, music, or peer support, while others internalized stress.

## 9. Major Findings and Discussion:

**9.1 Objective 1:** To assess the mental health status of JEE and NEET aspirants in Kota.

### (A) Findings:

- i) **Over 80%** of the students experience high academic stress.
  - ii) **Anxiety symptoms** were significantly higher among JEE aspirants than NEET aspirants.
  - iii) **Sleep Disturbances** were reported by over half of the students (52.5%), slightly higher among JEE aspirants (55.0%) than NEET aspirants (50.0%)
- Physical complaints (e.g., headaches, fatigue) were reported by more than 66% of students.
  - Suicidal thoughts were low but present (10%), indicating the need for timely mental health interventions.

### (B) Discussion:

In the present study, 82.5% of participants indicated moderate to high academic stress. These findings are consistent with [Kumar and Sharma \(2020\)<sup>8</sup>](#), who noted that four out of five Delhi coaching students preparing for competitive examinations experienced substantial stress linked to heavy workloads and anxiety about underperformance.

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<sup>8</sup> Kumar, P., & Sharma, R. (2020). *Academic stress among coaching students in Delhi: A sociological study. Journal of Education and Society*, 31(2), 45–62.



The study revealed that 68.3% of respondents displayed signs of anxiety, with JEE candidates reporting notably higher levels ( $p = 0.04$ ) compared to their NEET counterparts. This aligns with Gupta et al. (2021), who associated heightened anxiety in JEE coaching students with challenges such as mathematics-related stress, competitive peer environments, and insufficient opportunities for leisure. Physical health complaints—including headaches, fatigue, and eye strain—were reported by 66.7% of participants. Similar trends were documented by Srivastava and Verma (2019), who linked such psychosomatic problems to extended study durations and extensive screen use within coaching contexts. Over half of the students (52.5%) indicated disrupted sleep patterns. This finding parallels Jain and Thomas (2020)<sup>9</sup>, who observed that NEET candidates typically slept fewer than six hours per night. Such ongoing sleep deprivation can impair both short-term focus and long-term cognitive performance. Additionally, loss of motivation (reported by 35% in this study) is comparable to the findings of Rao & Menon (2022), who observed demotivation and burnout in high-performing students after sustained periods of academic overload. Although less prevalent (10%), the presence of suicidal thoughts is an alarming outcome. This concern is particularly relevant in Kota, which has experienced several student suicides in recent years. Comparable conclusions were reached by Kumar and Mishra (2019), who found that students residing away from family and enduring academic stress without adequate emotional support were at elevated risk.

**9.2 Objective 2:** To find the difference between JEE and NEET aspirants with respect to mental health indicators.

**(A) Findings:**

- i) There is no significant difference between JEE and NEET aspirants with respect to mental health indicators such as academic stress, sleep disturbance, depression symptoms, loss of motivation, physical symptoms and suicidal ideation
- ii) There is a significant difference between JEE and NEET aspirants w.r.to anxiety mental health indicator.

**(B) Discussion:**

Findings indicated that JEE students consistently scored higher on measures of anxiety and academic stress compared to NEET students. This pattern is in line with Iyer and Mukherjee (2021), who linked the abstract, logic-heavy nature of engineering exam preparation to increased cognitive pressure.

**9.3 Objective 3:** To find the correlation between academic stress and other mental indicators.

**(A) Findings:**

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<sup>9</sup> Rao, S., & Menon, V. (2022). Academic overload and student burnout: A study of high achievers in competitive examinations. *Indian Journal of Educational Research*, 16(1), 55–70.





- i) There is a strong positive correlation between academic stress and anxiety;
- ii) There is a moderate positive correlation between academic stress and sleep issue, loss of motivation and depression

**(B) Discussion:**

The strong positive correlation was observed between academic stress and anxiety ( $r = 0.76$ ), reinforcing earlier WHO (2020) findings that connected school-related stress with heightened anxiety and depressive tendencies among adolescents. Moderate correlations—such as those between stress and sleep disruption or reduced motivation—reflect the conclusions of Sharma et al. (2019), who described how unmanaged academic pressure can trigger a chain reaction of negative impacts on student well-being.

**10. Suggestions:**

Based on the findings of this study, several evidence-based recommendations are proposed to address the mental health challenges faced by JEE and NEET aspirants in Kota:

- i) Coaching institutes and schools should employ trained counsellors and psychologists to provide routine mental health screenings and one-on-one support.
- ii) Conduct workshops for parents to create awareness about the psychological impact of excessive academic pressure and unrealistic expectations.
- iii) Teachers and mentors should be trained to recognize early signs of stress, anxiety, and burnout, and refer students for timely intervention.
- iv) Coaching centers should redesign time tables to allow for adequate rest, physical activity, and leisure, minimizing long continuous study hours.
- v) Weekly or biweekly non-academic days could help reduce monotony and mental fatigue.
- vi) Peer mentoring systems should be introduced to build a supportive environment, allowing students to connect with others facing similar challenges.
- vii) Include sessions on stress management, emotional regulation, time management, and mindfulness to help students cope with academic demands.
- viii) Encourage yoga, pranayama, or meditation as part of the regular schedule for emotional grounding and focus.

**11. Conclusion:**

This study highlights the urgent mental health challenges faced by students preparing for competitive examinations like JEE and NEET while simultaneously attending secondary school in Kota, Rajasthan. The findings reveal that a significant proportion of these students experience academic stress, anxiety, sleep disturbances, physical complaints, and emotional strain—issues that can severely impact not just their academic performance but also their long-term psychological well-being.



Among all mental health indicators, academic stress emerged as the most prominent factor, affecting over 80% of the students. This stress was found to be strongly correlated with anxiety, sleep issues, and depressive symptoms, suggesting a cascading effect on overall mental health. Although both JEE and NEET aspirants are highly affected, JEE students reported slightly higher levels of anxiety and academic pressure, possibly due to the abstract nature and competitive intensity of engineering entrance exams. The study also brings attention to less visible but critical issues such as motivation loss, social isolation, and suicidal thoughts, pointing to a deep-rooted emotional and mental health crisis within India's coaching-driven education culture. The data clearly suggests that the current academic environment in Kota, while producing high achievers, may be overlooking the emotional needs of the majority of students.

Given these findings, it is evident that academic excellence should not come at the expense of mental well-being. There is a growing need for schools, coaching institutes, parents, and policymakers to work collaboratively in creating a healthier, more supportive educational atmosphere—one where student success is measured not only by ranks and scores but also by happiness, resilience, and emotional stability.

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