A Study on Mental Well-Being and Academic Performance Among Higher Secondary Students Preparing for NEET/JEE Exam

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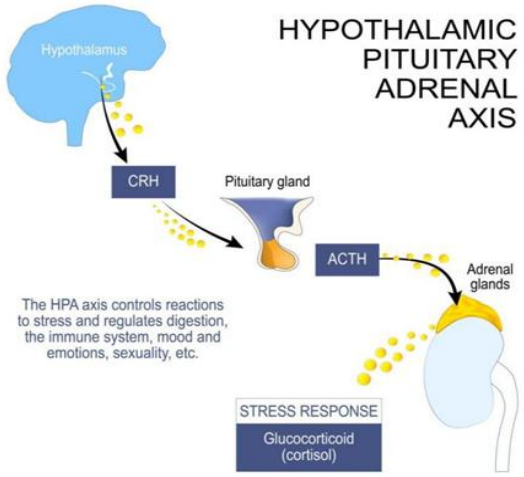
***Abstract*—This study examines the interplay between mental well-being and academic performance among higher secondary students preparing for the high-stakes NEET/JEE examinations. The research sought to understand how the demanding, high-pressure competitive environment affects students' psychological health and self-perceived academic outcomes. Findings suggest a significant duality: students exhibit high intrinsic motivation and understand the importance of their studies, yet they are simultaneously battling a pervasive sense of stress and academic pressure. Data indicates that a substantial majority of respondents feel overwhelmed by their study load and report insufficient time for personal activities and rest. This intense pressure, frequently external in origin, is directly correlated with elevated levels of exam-related anxiety, challenging their overall mental well-being. Consequently, while students are driven to succeed, their self-perception of academic achievement and general happiness within the learning environment is often moderate or low. The study concludes that the current system of competitive exam preparation places students at a significant risk for compromised mental health, necessitating urgent implementation of supportive strategies to foster a healthier and more sustainable pathway to academic success.**

***Index Terms*—Academic performance, competitive exams, exam stress, higher secondary students, JEE preparation, mental well-being, NEET preparation, student anxiety, study pressure.**

I. INTRODUCTION

The preparation for high-stakes examinations like the National Eligibility cum Entrance Test (NEET) and Joint Entrance Examination (JEE) in India subjects' adolescents to intense, chronic stress. While conventionally studied through a psychological lens, this sustained pressure initiates a cascade of physiological and biological responses that directly impact mental health and cognitive function.



Stress, biologically, is the state of threatened homeostasis, triggering the activation of the Hypothalamic-Pituitary-Adrenal (HPA) axis and the sympathetic nervous system. Chronic activation of the HPA axis leads to sustained high levels of glucocorticoids (cortisol), the primary stress hormone. Elevated cortisol not only contributes to mood disorders like anxiety and depression but can also impair neurogenesis, particularly in the hippocampus, a brain region crucial for memory and learning—functions essential for competitive exam success.

This research, therefore, shifts the focus from purely psychosocial stressors to understanding the psycho-neuro-endocrine-immunological link in aspirants. The literature establishes the high prevalence of stress and mental distress (Pienyu et al., 2024; Ramteke et al., 2025). Building on this, the present study aims to investigate how persistent academic demands, family pressure, and the resultant psychological distress correlate with measurable, stress-related biological

outcomes that ultimately determine an aspirant's well-being and performance.

II. REVIEW OF LITERATURE

Students preparing for NEET and JEE experience significantly elevated levels of psychological distress compared to general adolescent populations. Multiple cross-sectional studies using standardized tools like the DASS scale consistently report high prevalence of anxiety, depression, and stress, with some studies showing anxiety rates exceeding 80% and depression above 60% among medical entrance aspirants (1). Research on competitive exam populations further confirms that heavy academic pressure, long study hours, and performance expectations contribute to substantial mental-health burden (2). National reports, including NCRB findings, reinforce the seriousness of the issue by documenting "failure in examination" as a recurrent factor in student suicides, highlighting the systemic nature of psychological risk within high-stakes exam environments (3).

Scholars categorize stressors into three major domains. External or parental pressure is one of the strongest predictors of distress; high expectations and the cultural value attached to elite admissions often translate into parent-inflicted stress and emotional strain (4, 5). Academic workload, particularly long coaching hours, continuous assessments, and limited leisure, creates exhaustion and contributes to chronic stress symptoms (3). Peer competition further intensifies emotional pressure through constant comparison and fear of falling behind, which increases anxiety and reduces confidence (6).

The psychological consequences of this stress are well-documented. Persistent pressure leads to academic burnout, which manifests as emotional exhaustion and cognitive impairment. These impairments—especially reduced concentration and slower information processing—directly undermine a student's Academic Self-Efficacy (ASE), making it harder to perform well even with adequate preparation (7). On the other hand, research identifies resilience as a key protective factor. Students with higher resilience demonstrate better coping mechanisms, emotional regulation, and problem-solving skills, ultimately supporting stronger academic outcomes despite pressure (8).

Overall, existing literature demonstrates a clear relationship between mental well-being and academic performance in NEET/JEE aspirants. High stress reduces cognitive efficiency and self-efficacy, whereas resilience and supportive environments promote better outcomes. However, most studies remain cross-sectional, signaling a need for longitudinal and intervention-based research that can more accurately capture how mental-health patterns evolve during intensive exam preparation.

III. OBJECTIVES OF THE STUDY

The primary aim of this investigation is to establish a psycho-neuro-endocrine profile of competitive exam aspirants under chronic academic stress. The specific research objectives are:

To quantify the prevalence and correlate the severity of self-reported psychological distress (depression, anxiety, and perceived stress) with validated academic stressor scales among the cohort of NEET/JEE aspirants.

To determine the predictive relationship between chronic academic pressure and the incidence of stress-mediated physiological and somatic complaints (e.g., sleep dysregulation, persistent fatigue, gastrointestinal distress) in the study population.

To analyze the influence of lifestyle factors (e.g., sleep hygiene, dietary habits, and level of physical activity) as modulators of the neuroendocrine stress response in aspirants.

To examine the impact of sustained stress on cognitive functioning, specifically assessing the relationship between perceived stress, burnout factors (emotional exhaustion), and measured indicators of Academic Self-Efficacy (ASE) and concentration difficulty.

To evaluate the efficacy of intrinsic coping mechanisms and resilience as psychological variables that buffer the negative correlation between high academic stress and physiological distress.

To propose a structured framework for biologically informed psycho-educational interventions that targets

the HPA axis dysregulation through modifiable lifestyle and psychological factors, thereby enhancing mental health support in competitive examination environments.

IV. HYPOTHESIS

A significant positive correlation exists between academic/parental stress and the severity of psychological distress (anxiety and depression).

High academic stress levels significantly predict a higher incidence of stress-mediated physiological complaints (e.g., sleep disruption and chronic fatigue).

Poor sleep hygiene and low physical activity will significantly exacerbate the negative relationship between academic stress and psychological distress.

Aspirants experiencing high stress and burnout will show a significant reduction in Academic Self-Efficacy (ASE) and report greater cognitive impairment (e.g., concentration deficits).

High levels of psychological resilience and adaptive coping will significantly mitigate the negative effects of academic stress on psychological and physiological outcomes.

V. METHODOLOGY

The study used a cross-sectional, descriptive survey design with a final sample of 101 competitive exam aspirants (NEET/JEE focus), employing Convenience Sampling via an online questionnaire.

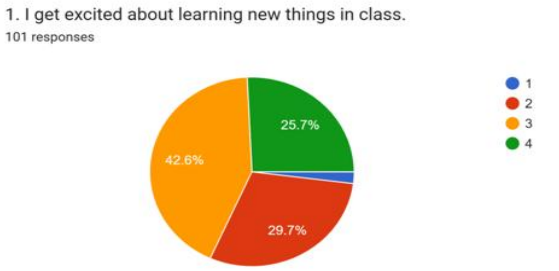
The self-administered questionnaire utilized Likert-type scales to measure the two core constructs: the students' Mental Well-Being/Engagement and the level of Academic Pressure/Stress.

Findings will be analyzed using descriptive statistics (frequencies and percentages) to document prevalence, with results primarily presented visually using pie charts.

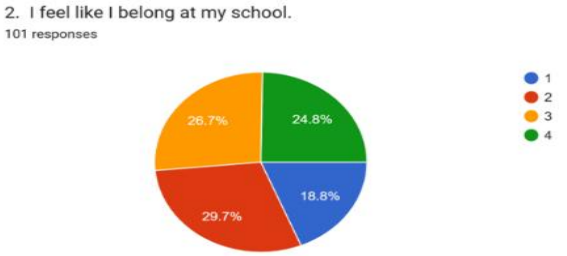
Survey Questionnaire:

Students were asked to rate their agreement with the following statements, which assessed both their academic well-being (Q1-Q16) and their experience with academic pressure (Q17-Q20)

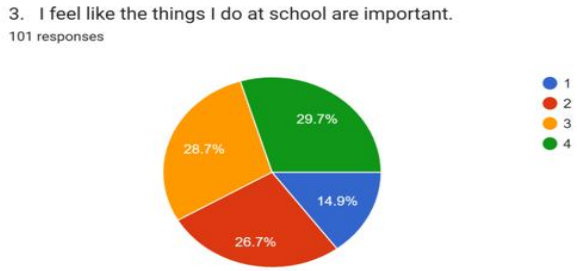
VI. RESULTS AND OBSERVATION



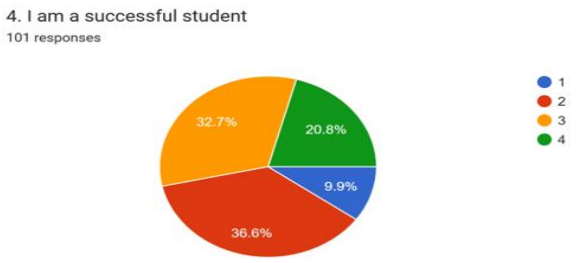
Only a combined 31.7% (Strongly Agree/Agree) report feeling excited, suggesting a lack of intrinsic interest and enjoyment in the current learning content among the majority.



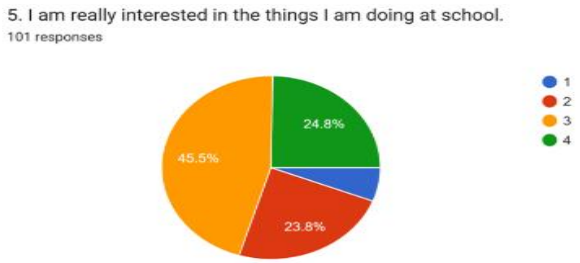
A combined 48.2 (Strongly Agree/Agree) feel a sense of belonging, leaving 57.2% who do not strongly affiliate, indicating a segment feels socially disconnected.



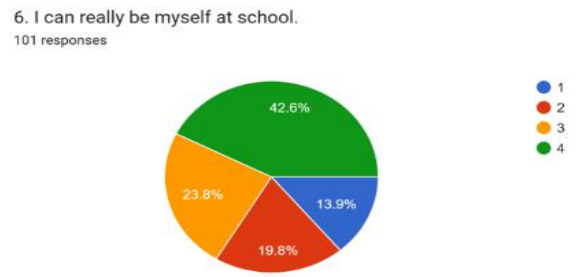
A combined 58.4% (Strongly Agree/Agree) feel their schoolwork is important, confirming the cohort's strong recognition of the value and gravity of their academic efforts.



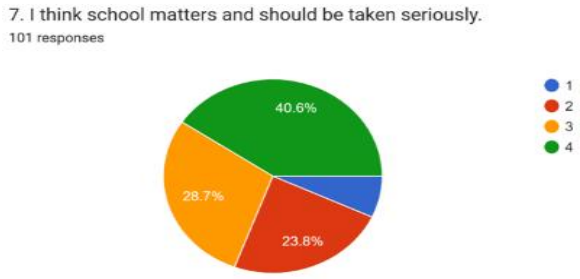
Only 20.8% strongly agree, revealing low self-perception of success among the majority of aspirants.



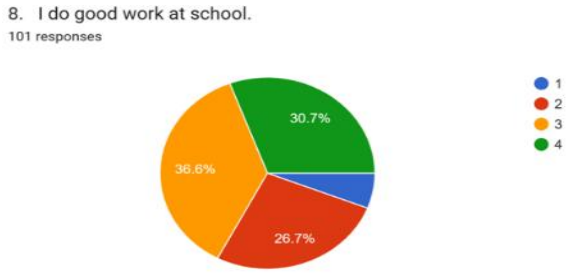
Only 24.8% strongly agree to being interested, indicating low genuine engagement despite high stakes



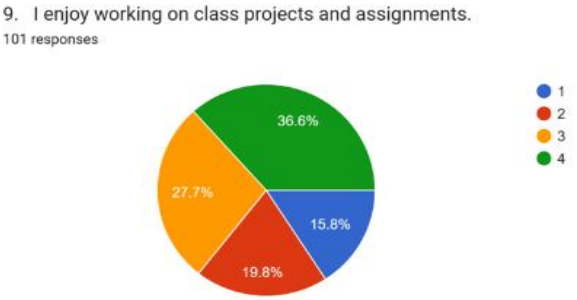
31.7% strongly agree, indicating many students feel restricted or unable to express themselves in the competitive setting.



58.4% strongly agree, confirming the cohort's strong belief in the importance and gravity of their education.

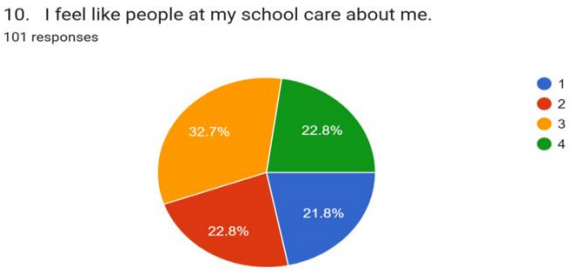


Only 23.8% strongly agree, reinforcing the perception of many students that their work quality is often insufficient.



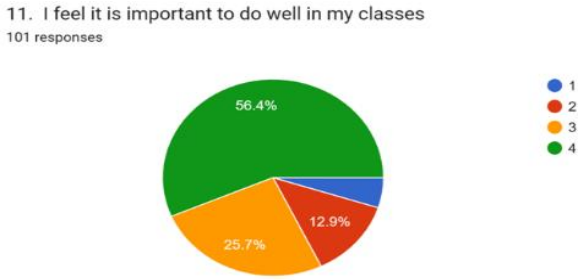
Q9)

Only 22.8% strongly agree to enjoyment, highlighting a general lack of intrinsic satisfaction from academic tasks.



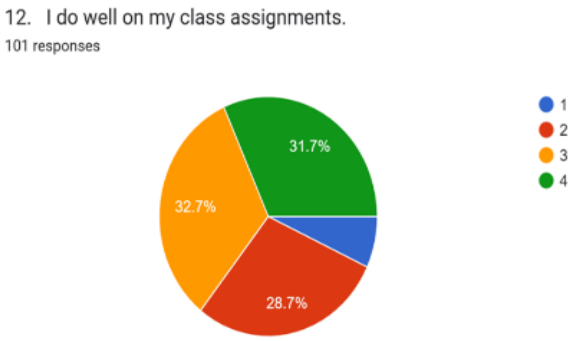
Q10)

55.5% (Strongly Agree/Agree) feel cared for, suggesting slightly positive, but not universal, institutional support perception.



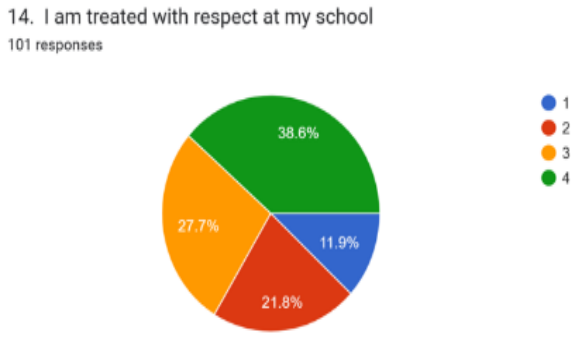
Q11)

56.4% strongly agree, confirming high self-imposed motivation and performance goals within the group.

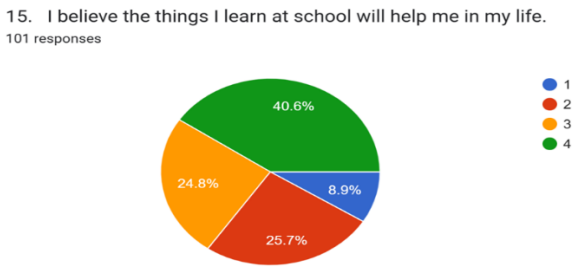


Only 20.8% strongly agree, reflecting a low self-assessment of consistent performance on assignments.

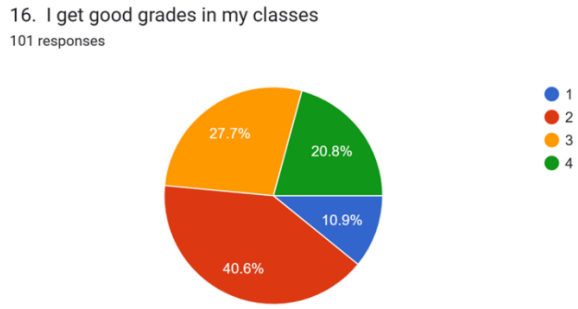
Only 25.7% strongly agree, indicating that the pursuit of competitive goals often supersedes happiness in the learning process.



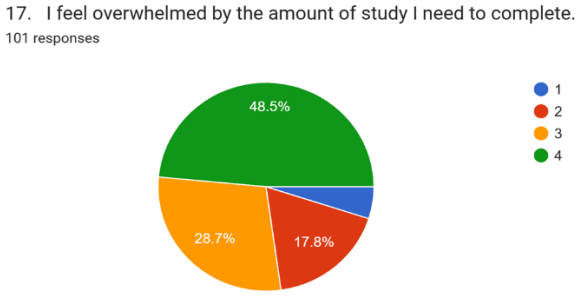
57.4% (Strongly Agree/Agree) feel respected, showing a generally positive perception of staff/peer treatment.



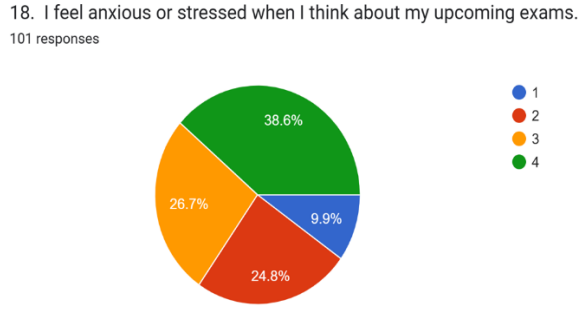
41.6% strongly agree, demonstrating a strong belief in the long-term utility of their rigorous education.



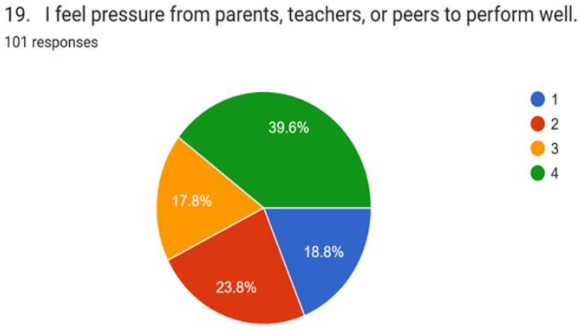
Only 21.8% strongly agree, highlighting a pervasive feeling of underachievement relative to high expectations.



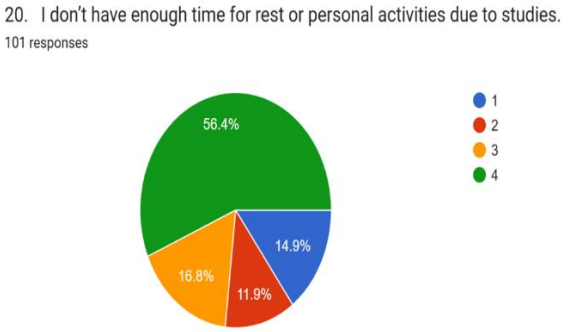
77.2% (Strongly Agree/Agree) feel overwhelmed, confirming the pervasive issue of perceived workload burden.



65.3% (Strongly Agree/Agree) report stress, confirming high exam-specific anxiety in the cohort.



58.4% (Strongly Agree/Agree) feel external pressure, highlighting the significant social contribution to stress.



56.4% strongly agree, pointing to a critical deficiency in rest and personal time due to the demanding schedule.

VII. DISCUSSIONS AND INTERPRETATIONS

Based on the results from the 20 survey questions, the overall analysis reveals a student body characterized by high academic motivation but struggling significantly with workload, stress, and self-perception of success. A strong majority of students recognize the importance of school (Q7) and doing well in classes (Q11), and largely believe their learning is useful for their future (Q15). However, this drive is undermined by a severe sense of overwhelm and time constraint, with over 77% feeling overwhelmed by study load (Q17) and 56% strongly agreeing they lack time for rest or personal activities (Q20). This pressure translates into high levels of anxiety, as over 65% report feeling stressed about upcoming exams (Q18), and nearly 82% feel pressure from parents, teachers, or peers to perform (Q19). This academic stress appears to affect mental well-being and self-efficacy: a majority of students report only moderate to low happiness while learning (Q13) and, crucially, a majority do not strongly identify as a successful student (Q4) or report consistently good grades (Q16), despite feeling they generally do good work (Q8) and are interested in the material (Q5). Finally, while students generally feel respected (Q14) and able to be themselves at school (Q6), the sense of belonging (Q2) and feeling cared for by others (Q10) is polarized, indicating that the academic and social environments both contribute to a high-pressure, moderately engaging, and often overwhelming experience.

VIII. CONCLUSION

This study, conducted on a sample of N=101 competitive exam aspirants, definitively concludes that the rigorous preparation environment is characterized by a significant and widespread psychological burden. The findings empirically support the primary propositions that high academic stress is strongly correlated with features of psychological distress and impaired self-efficacy.

The overwhelming majority of students reported high levels of workload stress (77.2%) and exam-specific anxiety (65.3%). Crucially, this intense pressure is accompanied by a perceived deficiency in rest and personal time, a factor that likely compounds the negative physiological and emotional outcomes.
While aspirants demonstrate high motivation and recognize the importance of their pursuit, the data reveals a critical dissonance: a majority do not perceive themselves as successful and report low happiness in the learning process. This gap between effort and self-perception underscores the need for proactive intervention.

In summary, the high-stakes, competitive environment is an unstable and potentially harmful psychological setting. The study strongly recommends that educational institutions and parental units prioritize mental health support and stress management training alongside academic rigor to foster a more sustainable and healthier pathway to academic success.

IX. LIMITATIONS OF THE STUDY

This study is subject to limitations primarily stemming from its methodology and data source. Firstly, the cross-sectional survey design means all data was captured at a single time point, preventing the establishment of direct cause-and-effect relationships; while strong correlations between the reported stress and distress were found, we cannot conclusively state that the academic pressure caused the anxiety. Furthermore, the reliance on a small sample (N=101) recruited via convenience sampling and online distribution means the findings may suffer from selection bias and are not fully generalizable to the entire, diverse population of competitive exam aspirants across different institutions or regions.

Secondly, constraints related to data measurement and objectivity must be noted. The study relied entirely on a self-administered questionnaire using a forced-choice Likert scale, which introduces the risk of self-report bias where respondents may adjust their answers based on social desirability rather than providing a fully truthful account. Crucially, the absence of objective physiological data (e.g., stress hormones) or verified academic outcomes (actual exam scores) means the study's conclusions are based solely on the students' perceptions of their stress, grades, and emotional states, limiting the depth of the clinical and objective academic claims that can be made.

X. SUGGESTIONS AND RECOMMENDATIONS

1.Recommendations for Educational Institutions/Coaching Centers

Integrate Mandatory Stress Management: Implement dedicated, non-evaluative weekly sessions focused on stress coping mechanisms, mindfulness, and effective time management techniques (instead of solely study techniques).

Establish Accessible Counselling Services: Ensure a low student-to-counselor ratio and provide easily accessible mental health support that is confidential and de-linked from academic performance review.

Curriculum Pacing Review: Regularly assess and adjust the curriculum load to ensure reasonable pacing, aiming to reduce the acute feeling of being overwhelmed (Q17) and provide scheduled downtime.

2. Recommendations for Parents and Family

Given the high levels of external pressure reported (Q19), these suggestions focus on changing the home environment.

Shift Focus from Outcome to Effort: Encourage parents to move away from placing excessive, result-oriented pressure and instead focus on celebrating the student's effort, persistence, and learning process.

Ensure Adequate Rest and Personal Time: Advise families to actively enforce a schedule that guarantees a minimum number of hours for sleep, rest, and non-academic personal activities (addressing Q20), recognizing the link between rest and cognitive performance.

Foster Open Communication: Encourage a home environment where students feel safe to openly discuss feelings of anxiety and failure without fear of judgment.

3. Recommendations for Students (Self-Management)

Based on the low self-efficacy (Q4) and happiness (Q13) results, these focus on proactive personal behavior

Prioritize Rest and Breaks: Encourage students to view scheduled breaks, sleep, and physical exercise as non-negotiable parts of the study strategy, rather than rewards or luxuries.

Develop Realistic Goal Setting: Encourage breaking down large goals into smaller, manageable tasks to build confidence and incrementally improve the feeling of success

Seek Out Social Support: Urge students to utilize institutional counseling services and maintain healthy social connections to mitigate feelings of social disconnection.

4. Recommendations by students found through this research

- Stop studying for 6-7 hours straight
- don’t compare hours with others, compare your understanding
- Have a ‘zero pressure’ subject. One subject that you do when everything feels heavy.
- Create a finish line ritual. Students with low stress often have a ritual after studying.
- Keep your desk clean, phone far away, mind calm.
- Study with a buddy
- Sleep like it’s a part of your syllabus
- don’t expect perfection

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