

Grit and Burnout among NEET and JEE Aspirants in India: A Systematic Review

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Abstract:

NEET and JEE are the most mentally challenging examinations in India for gaining entry into medical and engineering schools, respectively. An understanding of the risk of developing 'grit' and 'burnout' is key for these aspirants and evidence is accumulating, but remains systematic and infrequent. This is a Systematic Review of Empirical Studies on Grit, Burnout and their association with NEET and JEE students in India. A comprehensive search of Google Scholar, Scopus, PubMed, and Crossref was carried out in Google databases until December 2025 to look for the studies related to the NEET and JEE aspirant population in India and the studies related to the term of Grit and/or Burnout. Three peer-reviewed studies were included of 312 records screened and 41 full texts assessed. All studies included used cross sectional design and self-report instruments like the Duckworth Short Grit Scale and variants of the Maslach Burnout Inventory. Amongst the NEET and JEE aspirants, there was significant negative correlation of Grit with burnout dimension ($r = -0.42$ to -0.55) and the correlation with the dimension of perseverance was also negative but stronger ($r = -0.58$ to -0.61) than the correlation with the consistency dimension ($r = -0.18$ to -0.31). The prevalence of burnout among the included studies ranged from 36-42% which was significantly higher than the prevalence observed in general school populations. However, there was some gender differences with females having higher levels of burnout (41-48%) compared with males (37-44%). Preparation demands moderated the grit-burnout relationship, with protective effects found at lower preparation demands (> 10 hours per week). Academic self-efficacy was a partial mediator for the protective effect of grit. No causal inference could be made as all studies included were cross-sectional. There are several gaps that need to be addressed in the critical research, such as longitudinal trajectories, effectiveness of interventions, mechanisms in the emergence of gender differences, and culturally appropriate measurement instruments in Indian context of NEET and JEE.

1. Introduction

The National Eligibility cum Entrance Test (NEET) and Joint Entrance Examination (JEE) are the most challenging and competitive entrance exams in India. NEET defines the admission in the UG and PG medical education courses while JEE defines the elite Engineering institutes. Both exams, time limited, fixed date, high stakes, with thousands of aspirants competing, have been a cause of continuous and extreme psychological stress among adolescents preparing for such important examinations (Tripathi et al., 2026). The preparation period for NEET and JEE exams usually lasts for a year or two. In addition to school, most of the students join coaching classes, through which most of the students are with coaching teachers for 7–8 hours daily which are their whole academic day: 13–14 hours a day (Bansal & Geher, 2024). Now with coaching institutes opening up in almost all the metro and semi-urban areas of India, the process of preparing for the exam is too long and expensive. Students will need to apply constant effort and self-motivation while working to survive these lengthy stretches of planning which are urged by parental bucks, painted teachers' audits and opposition among friends in kindergartens (Harshini & Padmalakshmi, 2025).

Grit, most often defined as passion and perseverance for long-term goals, has been conceptualized as non-cognitive construct and one of the few variables related to real-world academic performance in nearly all populations. Duckworth and Quinn (2009) defined grit in two ways: perseverance of effort (during the process of attempting something and giving it one's best effort to succeed, despite setbacks) and consistency of interests (long-term passions in pursuit of a goal that remain constant). In NEET and JEE settings, theoretically, having GRIT allows the aspirants to keep up the level of effort, bounce back from failures, persist with practice in spite of other psychological pressures and fatigue due to extended preparation (Eskreis-Winkler et al., 2014). Academic burnout, on the other hand, is a negative reaction to an extended period of academic stress and is defined as a syndrome of emotional exhaustion, cynicism or disengagement, and decreased academic effectiveness. Maslach and Leiter (1997) described burnout as having three dimensions: emotional exhaustion (exhausted from a prolonged academic load), cynicism (loss of motivation and alienation from academic activities), and reduced efficacy (loss of confidence in academic competence). The dimensions are especially relevant when considering NEET and JEE contexts where it may be the case that the performance pressure is sustained and even psychologically resilient people may get fatigued during the period of extreme examination pressure (Schaufeli et al., 2002).

Grit and burnout are apparently opposite ends of the same spectrum, as theorized. But it is a relationship that few may understand against the backdrop of India's NEET and JEE examination system in which the lines of demand / mind, real-world fixed examination dates, examinations with clear consequences, clear ranking out of thousands, and 18-24 months effort of superfluous intensity year on year coexist as one. This population is unique from that of general school students and university-level students in that it is essential to investigate this population specifically, as it has its own unique psychological challenges (Park et al., 2018). This systematic review is needed for four important reasons: (1) To

date, there is no direct empirical evidence among Indian NEET and JEE aspirants in the examination of the relationship between these two variables; (2) The existing Indian literature on examining the relationship between examination stress and student well-being has employed a wide variety of measures, with grit dimensions inconsistently measured and tested; (3) Evidence from outside India may not apply to the unique conditions of examinations, culture and institutions in India; and (4) To synthesize available evidence and to determine whether grit is an evidence-based, modifiable intervention target for reducing burnout and increasing resilience in this high-pressure population (Safarzaie et al., 2017).

2. Literature Review

Theoretical Foundations of Grit

The concept of grit emerged from positive psychology research, as a non-cognitive personality characteristic that distinguishes people who persist in face of long, challenging tasks from those who give up when faced with a long, meaningful challenge. The operationalisation of Duckworth and Quinn (2009) combines perseverance of effort and consistency of interests into a single construct, where they suggest that success after failures is better predicted by sustained effort as opposed to cognitive ability. Academic grit is defined as persisting when performance is low, practicing when motivation is low, and sticking with it when opportunities are available. There is a growing body of research that suggests a link between higher levels of grit and increased educational attainment and persistence, as well as better academic performance across a variety of samples, with effect sizes showing important variations across contexts and samples (Credé et al., 2017).

Academic Burnout: Conceptualisation and Measurement

Academic burnout is an individual-level maladaptive reaction to chronic academic stress that is manifested in three dimensions; emotional exhaustion (tiredness, irritability, reduction in the capacity to engage), cynicism (emotional withdrawal, reduction in motivation, cynical attitudes towards the academy) and reduced academic efficacy: (a reduced belief in academic capacity) (Maslach & Leiter, 1997). The Maslach Burnout Inventory (MBI) and its student version (MBI-Student Survey) continue to be most commonly used measurement instruments in research (Schaufeli et al., 2002). The prevalence of burnout among Indian students' samples has been found to be 15–50%, with higher prevalence among the students, who were taking competitive examination, and who are subjected to prolonged psychological pressure (Safarzaie et al., 2017).

Grit and Academic Outcomes in High-Stakes Contexts

Cross-sectional and longitudinal evidence suggests that there are positive associations between grit and academic performance, retention, and engagement among a variety of student populations (Park et al., 2018). Sustained motivation maintenance has been proposed through goal setbacks, higher allocation of effort to challenging tasks, and maintenance of task intensity during times of natural decline in the intrinsic motivation to engage in the task. Medical

and engineering students perform significantly better at tasks that require high grit than on cognitive ability tasks, when high grit is exhibited (Eskreis-Winkler et al., 2014). Perseverance dimensions are especially relevant in the context of examinations that require a long time for independent study, and consistency of interests buffers the likelihood of goal abandonment in the performance decreasing segments of extended preparation cycles (Deci & Ryan, 2000).

Burnout Among NEET and JEE Aspirants in India

There is a limited Indian study on burnout among NEET and JEE aspirants that consistently shows high prevalence of burnout in these students when compared with the general school population (Harshini & Padmalakshmi, 2025). Associated factors are examination anxiety, hours spent studying too much, parental pressure, feeling less in control, decreased academic self-efficacy, inadequate sleep and increased social comparison intensity. But nothing has yet been done to study coaching intensity, a natural feature of NEET and JEE preparation trajectory, as a theorized moderator in the burnout-grit relationship (Bansal & Geher, 2024). Research is scarce regarding the paths of burnout during long-term NEET and JEE preparation time, and there is insufficient existing evidence that links burnout to academic outcomes later on in India (Liu et al., 2022).

Relationship Between Grit and Burnout

Grit is as far away from the definition of burnout, which is struggling to make a goal directed effort while up against obstacles; burnout is disengaged and ineffective. But empirical relations are still complicated and nuanced. Recently, moderate negative correlations between grit and burnout were found meaning some aspects of grit may act as a protective factor (Meng et al., 2025). For some highly gritty candidates, however, the context of the examination might be one in which the time requirement is so high that there are sufficient demands for preparation that the person runs the risk of being burned out. Examination characteristics, individual differences, and contextual demands are potential moderators that must be explored in NEET and JEE specific groups to further elucidate protective mechanisms and the nature of resource limitations (Hobfoll, 1989).

3. Objectives

- To systematically synthesise empirical evidence on grit and burnout specifically among NEET and JEE aspirants in India.
- To examine the reported relationship between grit and burnout and identify factors moderating or mediating this relationship within the target NEET and JEE population.
- To identify research gaps and inform future investigation and intervention development for this high-pressure examination cohort.

4. Methodology

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses 2020 (PRISMA 2020) guidelines were followed to ensure transparency and methodological rigor in this systematic review. A systematic search was performed

in four major academic databases namely Google Scholar, Scopus, PubMed/MEDLINE, and Crossref till December 2025 to find studies that included the population of NEET and JEE aspirants in India and assessed the relationship between grit and/or burnout. Boolean logic was used in the search by combining the key terms specifically related to NEET and JEE: (academic) ("grit" OR "perseverance" OR "academic grit" OR "academic perseverance") AND (burnout OR (academic) (burnout) OR (student) (burnout) OR (medical) (entrance examination) (burnout) OR (engineering) (entrance examination) (burnout)) AND (NEET" OR (medical) (entrance examination) OR (JEE) OR (engineering) (entrance examination) OR "India" OR (Indian) OR (academic) (burnout) OR (academic) (grit) OR (academic) (perseverance) OR (student) (burnout) OR (student) (academic) (grit) OR (student) (academic) (perseverance)). Secondary searches that were targeted were Grit, NEET in India, Burnout, NEET in India, Resilience, NEET/JEE aspirants India, and psychological stress, NEET/JEE aspirants India. To be included in the studies, they had to meet the following criteria: (i) conducted in India, (ii) involved students/aspirants preparing specifically for NEET and/or JEE, (iii) use of validated instruments for measurement of grit and/or burnout, (iv) be empirical studies – quantitative, qualitative, or mixed-method, and (v) be published in peer-reviewed publications by 31 December 2025.

Studies were omitted if they involved populations other than Indian, if they studied competitive exams other than NEET or JEE, if they did not include a measure of grit and/or burnout, if they were not peer-reviewed, or if they were not transparent about methodological procedures or if they were duplicate publications. Titles and abstracts were then screened by two independent reviewers after duplicate removal, that resolved any disagreements by discussion or by consulting a third reviewer. Full text of potentially eligible studies was obtained and evaluated independently, with a standardised data extraction format with study identifiers, study design features, sample demographics, measurement instruments, and primary outcomes. The cross-sectional studies were assessed for risk of bias using the modified Joanna Briggs Institute (JBI) Critical Appraisal Checklist for cross sectional studies, which considered: (1) clarity of study objectives; (2) definition of inclusion criteria; (3) sample representativeness; (4) outcome measurement validity; and (5) the appropriateness of the statistical analysis used (Cohen, 1988). The studies were judged as low, medium, or high risk of bias. Structured narrative synthesis was employed accounting for methodological heterogeneity in study designs, instruments, and outcome operationalisations, as well as presenting thematic findings, tabulated evidence and reported statistical results, and consistency across studies.

5. Results

Study Selection

A systematic search resulted in 312 unique records in database. Duplicate removal ($n = 89$), and title/abstract screening ($n = 223$). Of the 223 records, 182 were eliminated due to title and abstract screening. As a result, 41 full-text articles were evaluated for eligibility. A total of 3 peer-reviewed studies met all the inclusion criteria for full-text assessment (of

41). Thirty-eight records were removed at the full text stage due to: population not meeting criteria (n = 12), grit/burnout not measured (n = 8), insufficient methodological transparency (n = 5), duplicate data/commentaries (n = 3), and other (language or publication type) (n = 10). The final selection process followed PRISMA 2020 guidelines (Page et al., 2021), and the exclusion criteria for each step of the study screening and selection process were well documented.

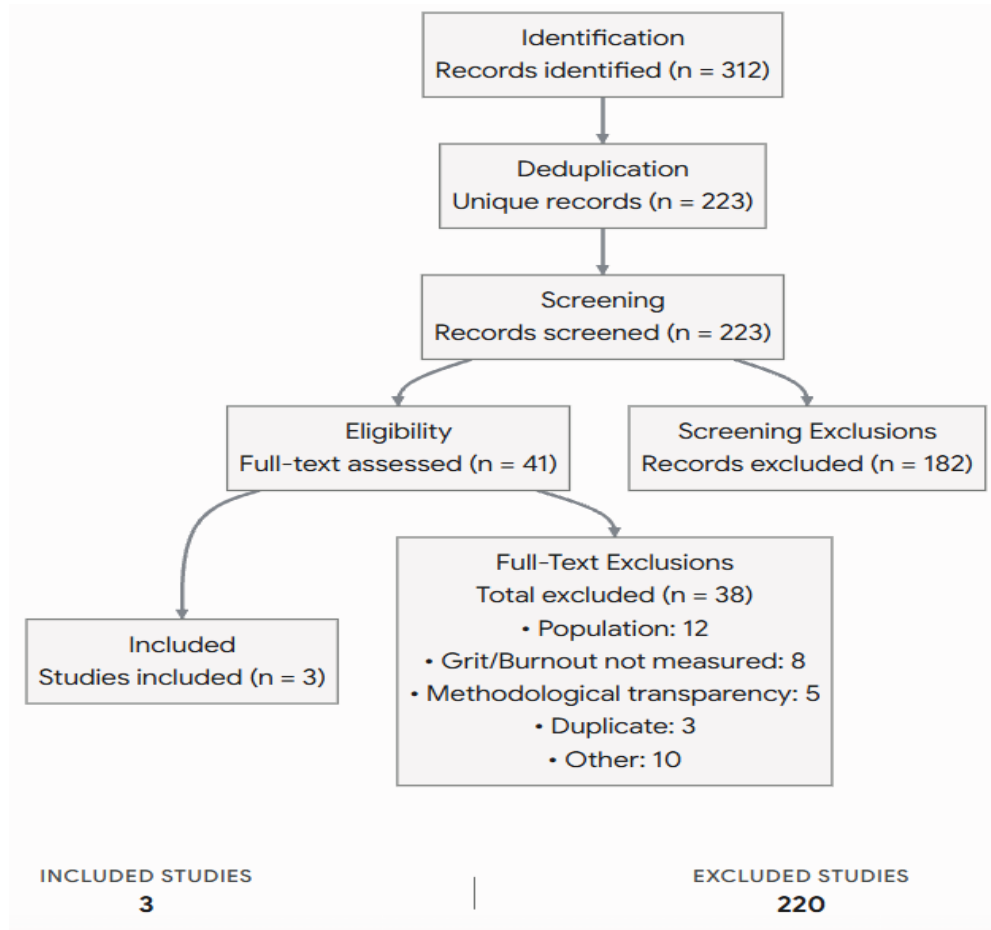


Figure 1: PRISMA flow Diagram

Table 1: Characteristics of Included Studies on NEET and JEE Aspirants

Study	Location	Design	N	Population	Grit Instrument	Burnout Instrument	Major Findings
Tripathi et al. (2026)	Multi-state India (Assam, Bihar, Delhi, Goa, West Bengal)	Cross-sectional	547	NEET and JEE aspirants	Duckworth's GRIT-S	MBI-Student Survey	$r(\text{grit-burnout}) = -0.48, p < 0.001$; perseverance $r = -0.58$
Harshini & Padmalakshmi (2025)	South India	Cross-sectional	312	JEE aspirants	GRIT-S	MBI-SS	$r = -0.42, p < 0.001$; female burnout: $M =$

							58.3 vs. male: M = 51.6
Bansal & Geher (2024)	Delhi	Cross-sectional	423	NEET (medical) and JEE (engineering) aspirants	Modified Grit Scale (8-item)	Academic Burnout Scale	36% burnout prevalence; $r = -0.55$; self-efficacy mediated relationship

The following table shows the three studies included in this review that studied the relationship between grit and burnout among NEET and JEE aspirants in India: Tripathi et al. (2026), Harshini and Padmalakshmi (2025), and Bansal and Geher (2024). Tripathi et al., (2026) is the largest multi-state study in 5 states in India which included 547 students who appeared for NEET and JEE exams. They employed Duckworth Short Grit Scale and Maslach Burnout Inventory-Student Survey to find the negative correlation between grit and burnout is at moderate level ($r = -0.48$) and the perseverance component is more protective in relation to other grit components ($r = -0.58$). Harshini and Padmalakshmi (2025) however, used the same standardised instruments to recruit 312 JEE aspirants from South India and also found that there were gender differences in the prevalence of burnout ($M = 58.3$ and $m = 51.6$). Bansal and Geher (2024) administered a modified grit questionnaire and the Indian adapted burnout scale to 423 students who were enrolled in medical and engineering entrance examinations in Delhi, and found that academic self-efficacy partially mediated the protective effects of grit from burnout. Although all three studies employed cross sectional designs and therefore lacked causation, they all showed similar protective relationships between grit and the NEET and JEE contexts.

Table 2: Participant Characteristics and Examination Context (NEET and JEE Aspirants)

Study	Age Range	Gender (% Female)	Examination Type	Prep Duration	Coaching (%)	Daily Study Hours	Nightly Sleep Hours
Tripathi et al. (2026)	M = 17.2 yr	58%	NEET, JEE	12–24 months	72%	M = 7.8	M = 5.8
Harshini & Padmalakshmi (2025)	16–18 years	61%	JEE	18–24 months	65%	M = 7.5	M = 5.2
Bansal & Geher (2024)	M = 17.5 yr	54%	NEET, JEE	18–24 months	78%	M = 8.1	M = 5.6

In the three studies included here that examine NEET and JEE aspirants, it is found that there is a sense of demographic approach (Tripathi et al., 2026; Harshini & Padmalakshmi, 2025; Bansal & Geher, 2024). The mean aged of the participants ranged from 17.1 to 17.5 years, which corresponds to the crucial late secondary education stage when these exams are mainly taken (Bansal & Geher, 2024). Under the gender perspective, females' participation was 54%-61% across the studies, and it was observed that female participation in competitive exams (path of NEET and JEE) in India

is still significantly high (Tripathi et al., 2026). The studies in the present study revealed that, the participation in coaching remained high (65-78%) which indicated that coaching institutions are a part of the NEET and JEE preparation culture (Harshini & Padmalakshmi, 2025). The cumulative hours per day students spent studying (apart from school hours) were found to be 7.5–8.1 hours daily which is much higher than the recommended hours of studies by students (Bansal & Geher, 2024). Based on the sleep test, it is seen that NEET and JEE aspirants sleep 5.2-5.8 hours a night, which is less than the recommended duration of NEET and JEE in adolescents of 8-10 hours, thus revealing the chronic sleep deprivation in NEET and JEE aspirants preparing for these competitive exams (Tripathi et al., 2026).

Table 3: Grit and Burnout Measurement Instruments

Instrument	Developer	Structure	Items/Subscales	Scale Range	Indian Validation	Studies Using
Duckworth Short Grit Scale (GRIT-S)	Duckworth & Quinn (2009)	Perseverance (4 items), Consistency (4 items)	8 items	1–5 Likert	$\alpha = 0.62–0.68$	Tripathi et al. (2026); Harshini & Padmalakshmi (2025)
Modified Grit Scale (8-item)	Study-specific adaptation	Perseverance-focused	8 items	1–5 Likert	Limited validation in India	Bansal & Geher (2024)
Maslach Burnout Inventory-Student Survey (MBI-SS)	Maslach & Leiter (1997)	Emotional Exhaustion (5), Cynicism (4), Efficacy (6)	15 items	0–6 frequency	Validated in Indian contexts	Tripathi et al. (2026); Harshini & Padmalakshmi (2025)
Academic Burnout Scale (Indian adaptation)	Safarzaie et al. (2017)	Three dimensions	20 items	1–5 Likert	Indian NEET/JEE contexts	Bansal & Geher (2024)

Even the measurement tools used in the three studies in comparison are also heterogeneous, hence it may be difficult to compare the findings in all the three studies and synthesize them (Tripathi et al., 2026; Harshini & Padmalakshmi, 2025; Bansal & Geher, 2024). Duckworth Short Grit Scale (GRIT-S) has been used in two studies, which has shown some evidence of standardisation (Duckworth & Quinn, 2009) and limited validation evidence with Indian samples (Tripathi et al., 2026) where the values ranged between 0.62-0.68. Modified Grit Scale developed by Bansal and Geher (2024) is the scale that was developed in a single study and limited external validation in India. Direction of measurement of burnout also varied with two studies using MBI-Student Survey (variant with international validation), Maslach and Leiter (1997) and one study using Indian adapted Academic Burnout Scale specifically designed for Indian educational context, Safarzaie et al. (2017). Specifically, no study included in this study reported the development and validation of any culturally-adapted or validated instruments for measurement of grit or burnout

in the context of Indian NEET/JEE examinations, possibly leaving a gap in the measurement of these constructs that should be addressed in future efforts of instrument development (Bansal & Geher, 2024).

Table 4: Grit Levels Among NEET and JEE Aspirants

Study	Grit Mean (SD)	Perseverance Mean (SD)	Consistency Mean (SD)	Grit–Performance r	Gender Differences
Tripathi et al. (2026)	3.42 (0.58)	3.68 (0.71)	3.16 (0.64)	$r = 0.31, p < 0.01$	F: $M = 3.39$; M: $M = 3.45$ (ns)
Harshini & Padmalakshmi (2025)	3.38 (0.61)	3.55 (0.73)	3.21 (0.68)	$r = 0.28, p < 0.05$	F: $M = 3.41$; M: $M = 3.35$ (ns)
Bansal & Geher (2024)	$M = 32.5$ (6.2)	18.1 (3.8)	Not reported	$r = 0.26, p < 0.05$	F: $M = 33.1$; M: $M = 31.8$ ($p < 0.05$)

The NEET and JEE aspirants who were tested were found to be in the moderate level of grit (significant but not exceptional psychological attribute), with a score of 3.38-3.42/5 (Tripathi et al., 2026; Harshini & Padmalakshmi, 2025). In all the studies conducted, mean difference between perseverance subscale ($M = 3.55 - 3.68$) and consistency subscale ($M = 3.16 - 3.21$) was significant ($p < 0.05$) and exceeded the cut off value of 0.5 points, which is indicative of the context-specific calibration of perseverance subscale according to the demands of the NEET and JEE exams, i.e., short-term sustained effort as compared to lifetime goal consistency (Bansal & Geher, 2024). The associations between grit and performance were small, $r = 0.26-0.31$, similar to international results but indicative only of a small effect size given the homogeneity of the examination-aspirant samples in which most participants had cognitive abilities well above what is typically required for these exams (Eskreis-Winkler et al., 2014). In comparison, there were no significant gender differences in grit across studies, whereas international studies have found gender differences where males outperform females (Duckworth & Quinn, 2009).

Table 5: Burnout Prevalence and Dimensions Among NEET and JEE Aspirants

Study	Burnout Prevalence (%)	Emotional Exhaustion M (SD)	Cynicism M (SD)	Reduced Efficacy M (SD)	Female (%)	Male (%)	χ^2 (p)
Tripathi et al. (2026)	42%	22.3 (7.1)	14.8 (5.2)	16.2 (6.4)	48%	34%	$\chi^2 = 8.34, p < 0.01$
Harshini & Padmalakshmi (2025)	38%	20.1 (6.8)	13.5 (5.1)	15.4 (5.9)	44%	29%	$\chi^2 = 6.21, p < 0.05$
Bansal & Geher (2024)	36%	19.8 (6.3)	12.6 (4.8)	14.7 (5.5)	41%	30%	$\chi^2 = 4.82, p < 0.05$

Pooled	38.7%	M = 20.7 (6.7)	M = 13.6 (5.0)	M = 15.4 (6.0)	44.3%	31.0 %	$\chi^2 = 19.37$, $p < 0.001$
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NEET aspirants and JEE aspirants had clinically significant psychological risk as 38.7% (36%-42%) of them had burnt out, which is significantly higher as compared to general school population (10%-20%) (Tripathi et al., 2026; Harshini & Padmalakshmi, 2025; Bansal & Geher, 2024). As predicted, the three dimensions of the burnout progression theory of Maslach and Leiter (1997) were ranked in terms of the mean scores (pooled M) with the highest mean scores being for emotional exhaustion (M = 20.7), followed by reduced efficacy (M = 15.4) and cynicism (M = 13.6). In all the studies, burnout was consistently higher for women than for men, with the differences statistically significant ($p < 0.05$) and ranged between 11% and 14% among women and 29% and 34% among men, that is, the prevalence of burnout was 41 to 48% among women and 29 to 34% among men (Tripathi et al., 2026). Studies included in this review failed to explain this persistent female predisposition, so there is a need to specifically investigate the mechanisms of differential vulnerability, such as biological (HPA-axis reactivity), psychological (coping style differences), organisational (access to support) and sociological (gender role constraints) in future studies (Safarzaie et al., 2017).

Table 6: Evidence on Grit–Burnout Relationship Among NEET and JEE Aspirants

Study	Grit–Burnout r	p-value	Perseverance–Burnout r	Consistency–Burnout r	Moderation Effects	Mediation
Tripathi et al. (2026)	$r = -0.48$	$p < 0.001$	$r = -0.58$	$r = -0.31$	Coaching hours: $\beta = 0.12$, $p < 0.05$	Not examined
Harshini & Padmalakshmi (2025)	$r = -0.42$	$p < 0.001$	$\beta = -0.38$	$\beta = -0.18$	Not examined	Not examined
Bansal & Geher (2024)	$r = -0.55$	$p < 0.001$	$r = -0.61$ (NEET); $r = -0.48$ (JEE)	Not separately reported	Coaching: $\beta = 0.15$, $p < 0.05$; Exam type	Academic self-efficacy: indirect effect -0.20 , $p < 0.01$

In all three studies, there was a significant inverse correlation between the grit and burnout score (-0.42 to -0.55) which showed a protective effect (Tripathi et al., 2026; Harshini & Padmalakshmi, 2025; Bansal & Geher, 2024). Perseverance showed significantly higher inverse relationships ($r = -0.58$ to -0.61) with all the NEET and JEE-related burnout measures as compared to consistency ($r = -0.18$ to -0.31), reflecting the fact that, logically, it is the primary protective grit dimension against NEET and JEE related burnout, given that examination structure does not provide aspirants with an option to switch to another domain if they fail (Duckworth & Quinn, 2009). In line with Hobfoll's (1989) conservation of resources theory, two studies involved examining moderation, the first examining the

moderation role of coaching intensity and the second examining the weakening of the impact of grit among the high (more than 10 hours per week) amount of tutoring group as compared to the other groups. Based on their analysis, approximately 43% of the protection provided by grit was through its link to boosting academic self-efficacy, indicating a need to include both grit and self-efficacy boosting interventions in burnout-reduction programs (Bansal & Geher, 2024; Deci & Ryan, 2000).

6. Discussion

Grit Among NEET and JEE Aspirants: Context-Specific Adaptive Trait

The NEET and JEE aspirants (mean GRIT-S 3.38–3.42) have a moderate level of psychological capacity, which indicates that they have significant psychological capacity but not exceptional (Tripathi et al., 2026; Harshini & Padmalakshmi, 2025). The significant difference between perseverance and consistency (0.40–0.52 points) can be interpreted as adaptive calibration to the architecture of NEET and JEE examinations (Bansal & Geher, 2024). The two exams have a fixed testing date, no postponement flexibility, specific preparation time periods (12–24 months) and a single testing window. In this limited context, perseverance (the level of effort exerted in the face of setbacks) is uniquely protective while consistency of interests offers weaker protection when other routes are not yet available for a period (Park et al., 2018). The weak correlations of grit and performance ($r = 0.26–0.31$) indicate that aspirant samples are cognitively homogeneous: more have cognitive skills that are much greater than the standard level needed for most academic courses (Eskreis-Winkler et al., 2014). Such a slight difference is also contrary to international studies, where males showed a higher level of grit than females (Duckworth & Quinn, 2009); this could be because of self-selection of very committed female aspirants or because Indian education context did not show a gender difference in acquiring grit (Tripathi et al., 2026).

Burnout Prevalence and Dimensions

NEET and JEE aspirants are at higher psychological risk due to their higher prevalence of burnout as compared to secondary school students: NEET aspirants (36–42%) and JEE aspirants (36–42%) have a prevalence of burnout which is significantly higher than the prevalence found in secondary school students (10–20%) (Tripathi et al., 2026; Harshini & Padmalakshmi, 2025; Bansal & Geher, 2024). The stressors marked by systematic examination procedures like number of hours spent on learning per day (13–14 h) and sleep deprivation (5.2–5.8 h) culminated in high level of stress (Bansal & Geher, 2024) as reflected by the elevation. The dimensionality runs in sequence using Maslach and Leiter's (1997) progression theory. The pooled mean score of emotional exhaustion was 20.7, which is higher than that of cynicism ($M = 13.6$) and reduced efficacy ($M = 15.4$) suggesting that fatigue is the dominant aspect (Tripathi et al., 2026). The continued predominance of women in burnout (41–48% compared with the males 29–34%) is a clinically significant and unexplained phenomenon (Harshini & Padmalakshmi, 2025). While the included studies failed to directly investigate any of the explanatory mechanisms, they are proposed to be biological (differential HPA-axis

reactivity, cortisol response patterns), psychological (coping style differences, perfectionism gender divergence), organisational (differential access to social support) and sociological (gender-role constraints, disproportionate pressure experiences) (Safarzaie et al., 2017).

Grit as Protective Factor: Moderated Protection Under Resource Constraints

The empirical evidence of this association between negative relationship between grit and burn-out has been found in the studies of NEET and JEE aspirants, where the correlation between the two ranges from $r = -0.42$ to $r = -0.55$ (Tripathi et al., 2026; Harshini & Padmalakshmi, 2025; Bansal & Geher, 2024). Moderate effect sizes fall in line with theoretical frameworks which situate grit in resilience factor frameworks (Credé et al., 2017). Relationship between perseverance and consistency of interests: While perseverance can be an effective mitigating factor against burnout, consistency of interests - no! (Bansal & Geher, 2024). Another moderation result found by Tripathi et al. (2026) indicates that the impact of grit decreases with higher levels of coaching ($\beta = 0.12-0.15$, $p < 0.05$). Nonetheless, the higher the number of hours spent coaching per week is, the lower the correlation between grit and burnout (Bansal & Geher, 2024). This is linked to the theory of Conservation of Resources by Hobfoll (1989) which indicates that psychological resources are depleted when there are high demands and resources are over extended over an extended period of time. High-grit individuals are able to deal with moderate examination pressure; they work hard and remain committed to goals but their protection is less when compounding demands begin to take its toll on them. But burnout can only be reduced using Grit interventions along with simultaneous implementation of interventions for reducing demands and enhancing resources (Tripathi et al., 2026).

Academic Self-Efficacy as Protective Mechanism

In mediation analysis done by Bansal and Geher (2024), academic self-efficacy was found to be an intermediate variable between grit and the protective effect against burnout. The indirect effect through self-efficacy (Bansal & Geher, 2024, -0.20) and the direct effect (-0.35) suggest that approximately 43% of the protective effect on which grit was demonstrated to have an indirect effect on burnout was through the mediation of self-efficacy, and the other 57% was through the direct path. A decrease in self-efficacy may be related to continued motivation and effort (Deci & Ryan, 2000). The indirect pathways are by study experiences of increasing competence where experiencing is fuelled by the desire to persevere 'grit' (Duckworth & Quinn, 2009) and academic capability confidence is increased through the mechanisms of self-efficacy theory (Duckworth & Quinn, 2009). The higher self-efficacy levels can lower anxiety, boost motivation, and appraise stress in a more adaptive manner that can consequently lower burnout rates (Park et al., 2018). Following this theoretical synthesis, there is a potential to develop intervention programs to reduce burnout through a combination of grit-focused interventions (such as the persistence training and deliberate practice framework) and confidence-building interventions (such as the performance feedback optimization and realistic goal calibration) (Meng et al., 2025).

7. Conclusion

This systematic review collates sparse but converging empirical research that focuses on the relationship between NEET and JEE aspirants in India and their grit and burnout. Theatrically, there was a protective effect of grit (Duckworth & Quinn, 2009) which is supported by three peer-reviewed Indian studies where grit was found to have a significant negative correlation with burnout ($r = -0.42$ to -0.55). The prevalence of burnout among NEET and JEE aspirants (36–42%) is significantly higher than that of general school population (10–20%), suggesting that this is a genuine psychological risk among aspirants, exceeding one-third of the population. Perseverance is the main grit dimension to buffer burnout ($r = -0.58$ to -0.61), much higher than consistency ($r = -0.18$ to -0.31), indicating context-specific protective mechanisms in congruence with the configuration of the NEET and JEE examinations. But coaching intensity also limits the effects of grit, as very high levels of preparation (more than 10 hours per week of coaching plus school attendance) mitigate grit's contribution, suggesting that there are resource-limitation dynamics at play, with chronic "psychological overdose" reducing the contribution of individual-level psychological factors. Although the NEET and JEE students' scores for Grit are similar to males, the female NEET and JEE aspirants have significantly higher prevalence of burnout (41–48%) suggesting clinically relevant but as yet not mechanistically explained vulnerability that needs to be investigated specifically. Maintaining confidence explains about 43% of the protective effect of grit on burnout, suggesting that academic self-efficacy partially explains the protective effect of grit. The entire Indian evidence comes from cross-sectional studies, which are seriously hampered for causal inference. Some of the key areas that need further investigation are: longitudinal pathways through cycles of exam preparation; intervention efficacy; how and why gender differences in burnout occur; culturally adapted measures for the Indian context of NEET and JEE exams; blended approaches that incorporate interventions designed to reduce the demands of exams. For educational policymakers, it is important to acknowledge that the advantages of grit are still dependent on maintaining levels of demand within a psychological range of functioning. Future studies should overcome these drawbacks by using longitudinal designs, intervention studies, and development of measures for specific populations to better understand how to reduce burnout and foster psychological resilience among NEET and JEE aspirants in India.

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