

Mental Health and Psychological Well-Being Among Medical Aspirants: Gender and Coaching Status Differences

Nidhi Meena* and Prof. O. P. Sharma**

Abstract

Adolescents who are preparing for medical entrance exams at coaching institutes have been affected by increasing competitiveness and therefore raise issues in regard to their psychological well-being and their mental health. This study investigated the effects of gender and coaching status on medical aspirants in Rajasthan regarding their mental health and psychological well-being. A purposive sample of 300 NEET students (150 who were non-repeaters and 150 who were repeaters) who ranged in age from 16 to 22 years old was chosen. A 2×2 factorial research design was utilized where gender and coaching status were independent variables and mental health and psychological well-being were dependent variables. The study utilized the Mental Health Scale (Bhatia & Sharma, 2001) and the Well-Being Index (Chauhan & Sharma, 2016) for collecting data. The collected data were analyzed using descriptive statistics, independent samples t-tests, and two-way ANOVA. The results indicated that girls were significantly worse off than boys regarding mental health and psychological well-being. Repeaters also fared significantly worse in terms of psychological functioning than non-repeaters, which suggests that the extended period of preparation for the competitive exam has a deleterious effect on the mental health of adolescents. In addition, significant interactions demonstrated that the female repeaters were the most vulnerable group psychologically. The coaching status had a stronger impact on the psychological outcomes than gender, highlighting the accumulated effect of the repeated attempts on the exam. The authors recommend that systematic support for students' mental health, early interventions for psychological needs, and the development of resilience be established within coaching institutes to enhance the overall well-being of aspiring medical students.

Keywords: *academic stress, coaching students, mental health, non-repeaters, psychological well-being, repeaters*

Mental health is defined as the capacity of a person to cope with normal day-to-day stresses, to develop their potential, learn and work productively, and contribute to their community (World Health Organization, 2022). Psychological wellbeing describes how a person functions positively (self-acceptance, a sense of purpose in life, independence, ability to manage one's environment, positive connections with others, and personal development) (Ryff, 1989; Ryff & Keyes, 1995). In addition, mental health and psychological wellbeing are both very important for people in the adolescent and early adulthood stage of development. This is because this period of development sees adolescents and young adults undergoing rapid changes in thinking, feeling, and social relations. School work can create such high levels of stress over extended periods of time that the way it shapes person's mental state and psychological wellbeing can be significant.

The Coaching Ecosystem

In India, the rise of coaching-based preparation for medical school entrance tests has been an important avenue of education, particularly in the areas of Rajasthan and other academic city

centres. The rise of competition through coaching has come about, in part, due to the ever-evolving landscape of competitive examination preparation, incorporating constant performance evaluation, extensive study demands, the expectations placed on students from their parents, and uncertainty about one's own ability to succeed. The growth of competition through coaching has created a long-term source of chronic psychological stress for many adolescents, and therefore raises many questions about their overall psychological health. By examining the psychological distress experienced by, as well as the positive functioning exhibited by, students immersed in this culture of educational competition, we can gain a better insight into the dual stressors of the academic process.

Educational Stress and Psychological Strain

Educational environments with intensive demands placed on students create a situation that produces need for special consideration about mental health. Academic demands are creating a mental health crisis among adolescents prior to entering the workplace; higher-secondary students, for example, are experiencing high

*Associate Professor, Psychology, Govt. Arts Girls College, Kota. 324001. nidhimina@gmail.com

**Former Head & Professor, Department of Psychology, University of Rajasthan, Jaipur (Raj.) 302004. opbrd65@gmail.com

Correspondence concerning this article should be addressed to Neha Kalia, Laxmi Bai Hostel, University of Rajasthan Campus, JLN Marg, Jaipur, Rajasthan, 302004

levels of depression, anxiety and stress (Kumar & Akoijam, 2017). As such, these same students continue to experience the psychological impact of education upon entering higher levels of education, no matter where they attend with respect to type or geographic location (Garg et al., 2017; Mehta et al., 2018).

Education-related stresses create a direct correlation between the mental health status of students, indicating that emotional distress continues to increase throughout medical training (Farrell et al., 2019; Saxena et al., 2019). In addition, vulnerable youth populations, particularly adolescent females, report significantly poorer psychosocial well-being than those of other demographic categories. This trend continues to exist into multiple stages of medical training, and depression and anxiety are significant issues for junior physicians and medical trainees (Sagar et al., 2020).

High-Stakes Medical Examinations

The psychological burden placed upon candidates preparing for a high-profile entrance test is particularly high. Those younger individuals with an interest in pursuing postsecondary medical education that are participating in preparatory classes for that exam tend to have a significantly greater incidence of depression, anxiety, and difficulty in coping than those who do not participate in such classes (Sharma, et. al., 2021). Because of the extensive pressure created by the NEET (National Eligibility cum Entrance Test), candidates from all over the country suffer academic stress as it is a significant issue on a national scale (Sundarapandiyan & Kalaiyaran, 2026).

The majority of those students in preparation for the NEET encounter a high degree of academic stress and both the psychological stress that causes and the perceived sense of well-being and happiness that could be a result of that stress must be understood in context when developing programs and services designed to assist this population (Gayathri, et. al., 2023; Sharma, et. al., 2024). Both the experience of being tested and the resultant high levels of stress create an extremely high level of anxiety in undergraduate students changing from previous, less demanding curriculums to more intensive and rigorous ones (Nihal, et. al., 2019; Thiriveedhi, et. al., 2023).

Digital Overload and Behavioral Risks

The increasing psychological burden of competitive academics is a result of the emergence of digital distractions alongside unhealthy habits. Research has shown that

college and medical students with addictions to the internet and smartphones experience a higher degree of depression, anxiety, stress, and insomnia than those who do not have such an addiction (Sarhan, 2024; Alkhazaleh & Abojedi). As students face academic pressures, digital overuse contributes to their poor emotional state. These are compounded by a number of external digital stressors, including cyberbullying and excessive engagement with social media, which further contribute to the student's capacity to cope with their stressors effectively (Kumar et al., 2021; Abueva et al., 2025).

Historically, the elimination of traditional educational environments along with extended time spent isolated has intensified the vulnerabilities of these students. Additionally, when navigating academic demands without sufficient face-to-face peer support, students are more likely to develop increased levels of anxiety and emotional fatigue while engaging in other risk-taking behaviors, such as substance use (Saraswathi et al., 2020; Barbayannis et al., 2022; Deep & Chen, 2025).

Systemic Barriers and Interventions

Academic stress has moved from being a clinical issue and into the field of public health policy due to the negative impacts it has on the way students perceive and manage their emotional state. Chronic stress, persistent depressive symptoms, and extreme academic pressure have been identified as significant contributors to suicidal ideation and attempts by coaching aspirants and Indian college students (Gururaj et al., 2016; Roy et al., 2020).

This revelation illustrates that there is an urgent need to provide structured psychiatric interventions and preventative suicide programs in coaching settings (Seervi & Sharma, 2025). Unfortunately, proactive help-seeking behaviours tend to be extremely restricted by societal stigma surrounding mental health, as well as various attitudes towards seeking help (Khan et al., 2026). In instances where structured support systems exist (i.e., peer-led mentorship interventions, balanced schedules between studying and resting), they have been shown to alleviate test anxiety and increase overall resilience in adolescents (Balaji et al., 2019; Priyadarshini et al., 2021; Bharti et al., 2026).

From the findings of these studies, we can draw three major conclusions, first medical students in India and those engaged in competitive examination settings consistently experience high levels of psychological strain; second the

behavioural aspects of digital overload, maladaptive lifestyle habits, and systematic barriers to obtaining mental health care significantly increase the overall psychological load carried by students; and lastly demographic variables and coaching status exert a significant influence upon vulnerability to emotional exhaustion and reduced well-being, with the largest populations of female students and individuals who have made multiple attempts on their examinations facing the greatest risk of this outcome.

While there are numerous studies that have examined both mental health and multi-dimensional well-being among coaching students in Rajasthan, there are very few studies that have compared the interaction between gender and coaching status in an academic environment with high-stress. Thus, the current study will fill this gap by addressing mental health and psychological well-being as being interdependent and focusing specifically on the contrast between non-repeaters and repeaters engaged in a high-pressure educational environment.

Objectives

1. To examine the effect of gender on mental health and psychological well-being among medical aspirants.
2. To examine the effect of coaching status (Repeaters and Non-Repeaters) on mental health and psychological well-being among medical aspirants.
3. To examine the interaction effect of gender and coaching status on mental health and psychological well-being among medical aspirants.

Hypotheses

- H₁:** Female medical aspirants exhibit lower mental health and psychological well-being than male medical aspirants.
- H₂:** Repeaters exhibit lower mental health and psychological well-being than non-repeaters.
- H₃:** The interaction between gender and coaching status significantly influences mental health and psychological well-being among medical aspirants.

Method

Sample

The sample in this research included 300 students who were all attending medical entrance coaching (ages 16-22) from coaching centres located in Kota, Jaipur and Sikar, Rajasthan. These students were selected using purposive sampling methods. The sample was made up of

150 repeating students (75 boys and 75 girls) and 150 non-repeating students (75 boys and 75 girls).

Inclusion Criteria: students must be between the ages of 16-22; students must be enrolled in NEET coaching centres in Rajasthan; students must have good attendance in their classes and agree to take part in the study.

Exclusion Criteria: students who had been diagnosed with severe psychiatric conditions; students who were preparing for exams other than NEET; students who submitted incomplete responses.

Research Design

A 2×2 factorial research design was utilized to investigate the main and interaction effects of children's gender (boys and girls) and the type of youth coach (Repeaters and Non-Repeaters) on mental health and Wellness as it relates to Medical School Pursuers. This design provided an opportunity to evaluate both independent effects of each variable on the mental health and wellness of the medical school pursuer and to explore any combined effects for those variables.

Independent Variables

- Gender (Boys, Girls)
- Coaching Status (Repeaters, Non-Repeaters)

Dependent Variables

- Mental Health
- Psychological Well-Being

Psychological Measures

1. *Mental Health Scale (Bhatia & Sharma, 2001)*

Bhatia and Sharma (2001) established the Mental Health Scale for evaluating mental health based on five separate dimensions of psychological functioning, which includes: Perception that is Realistic; Joyful Life; Autonomy; Emotional Stability; and Social Maturity. The Mental Health Scale consists of 50 statements with each statement measured through a five-point response option (e.g., Strongly Disagree – Strongly Agree) for the responses of all the items measured using this method. The responses to the negative items are reversed prior to summation of the total score, in which higher scores will be indicative of better mental health as compared to lower scores. The reported test-retest reliability coefficient of the Mental Health Scale is 0.78 to 0.85, which is a very acceptable level of reliability. The scale has also been shown to possess adequate construct validity with significant

correlations to the measures of general adjustment and wellbeing.

2. *Well-Being Index (Chouhan & Sharma, 2016)*

Chouhan and Sharma (2016), developed the Well Being Index to measure Psychological Well Being through a scale of multiple dimensions, they include: Emotional Well Being; Psychological Well Being; Social Well Being; Spiritual Well Being; Self Awareness; and Physical Well Being. The Well Being Index includes 50 statements measuring each of the multidimensional well-being concepts through a five-point response scale (i.e., Always – Never), whereby higher scores reflect a higher level of well-being. The reported test–retest reliability coefficient of the Well Being Index is approximately .71, and it also demonstrates a strong concurrent validity ($\approx .85$) with general well-being. In the current study, the Mental Health Scale's Cronbach's alpha coefficient is .82 indicating good internal consistency while the Well Being Index's alpha coefficient indicates very good internal consistency with a score of .79.

Procedure

Data were collected on an individual basis from medical aspirants who were studying in NEET coaching institutes in Kota, Jaipur, and Sikar, Rajasthan. Participation was voluntary, and informed consent was taken from all the participants before the data collection. The assurance was given to the participants regarding their responses being confidential and used only for research purposes. Questionnaires were administered by either personally or via Google Forms, as per the convenience of the participants. Responses collected were scored as prescribed by the respective test manuals.

Statistical Analysis

The results of the study were analyzed using descriptive statistical measures including means and standard deviations to summarize the mental health and psychological well-being scores by gender and coaching category. Because the data fit within the assumptions of normality, a series of independent t-tests were conducted to determine if there were any significant differences in scores between boys and girls and between non-repeaters and repeaters. In addition, a two-way ANOVA was used to analyze the main and interaction effects of gender and coaching status on the “mental health” and “psychological well-being” scores.

Results

Descriptive Statistics

Table 1: Means and Standard Deviations of Mental Health and Well-Being

Variable	Group	Mean	SD
Mental Health	Boys	65.12	9.54
	Girls	59.84	10.70
	Non-repeaters	67.90	8.90
	Repeaters	57.06	10.81
Well-Being	Boys	66.70	10.12
	Girls	61.60	11.74
	Non-repeaters	69.30	9.20
	Repeaters	59.01	11.98

Note. N = 300.

Gender Differences

Table 2: Independent Sample t-Test for Gender Differences

Variable	<i>t</i>	df	<i>p</i>	Cohen's <i>d</i>
Mental Health	2.41	298	.016	0.28
Well-Being	2.18	298	.030	0.25

Note. N = 300.

Female students showed significantly lower mental health, $t(298) = 2.41, p = .016, d = 0.28$, and well-being, $t(298) = 2.18, p = .030, d = 0.25$, indicating small effect sizes.

Non-repeaters vs Repeaters

Table 3: Independent Sample t-Test for Coaching Status

Variable	<i>t</i>	df	<i>p</i>	Cohen's <i>d</i>
Mental Health	6.82	298	<.001	0.79
Well-Being	6.11	298	<.001	0.71

Note. N = 300.

Repeaters reported significantly poorer mental health, $t(298) = 6.82, p < .001, d = 0.79$, and well-being, $t(298) = 6.11, p < .001, d = 0.71$, indicating large practical differences.

Two-Way ANOVA

Table 4: Two-Way ANOVA for Mental Health

Source	<i>F</i>	<i>p</i>	η^2p
Gender	4.98	.027	.017
Coaching Status	28.41	<.001	.088
Interaction	6.72	.010	.022

Note. N = 300.

A two-way ANOVA demonstrated a substantial influence of coaching status on participant's mental health, $F(1, 296) = 28.41, p < .001, \eta^2p = .088$, indicating a moderate practical impact, with repeaters showing poorer mental health than Non-repeaters. The main effect of gender was also significant, $F(1, 296) = 4.98, p = .027, \eta^2p = .017$, indicating a small effect, with females reporting lower mental health than males. A

significant interaction effect was observed, $F(1, 296) = 6.72, p = .010, \eta^2p = .022$, suggesting that the negative impact of repeated preparation was stronger among female students.

Table 5: Two-Way ANOVA for Well-Being

Source	<i>F</i>	<i>p</i>	η^2p
Gender	4.21	.041	.014
Coaching Status	25.63	<.001	.080
Interaction	5.84	.017	.019

Note. *N* = 300.

The two-way ANOVA yielded a significant main effect for coaching status regarding psychological well-being outcomes, $F(1, 296) = 25.63, p < .001, \eta^2p = .080$, demonstrating a moderate effect, with repeaters reporting lower well-being than Non-repeaters.

The main effect of gender was significant, $F(1, 296) = 4.21, p = .041, \eta^2p = .014$, indicating a small effect, with females reporting lower well-being than males. The interaction between gender and coaching status was also significant, $F(1, 296) = 5.84, p = .017, \eta^2p = .019$, showing that female repeaters experienced the lowest level of well-being.

The findings demonstrated that there was little or no comparison in terms of the amount of influence or effect coaching could have on the participants' mental health or wellbeing. However, the researchers found that the ability to coach participants to better themselves through their repeated experiences was much more powerful than the influence of gender alone.

Discussion

In India, obtaining a medical education is not an easy undertaking; it requires a tremendous amount of commitment on behalf of students due to the large number of students who apply for only a small number of seats. Millions of young adults compete for these slots via the National Eligibility cum Entrance Test (NEET). Young adults living in educational landmark cities, such as Rajasthan, are further challenged by demands for extensive time commitments, ongoing assessments and high parental expectations associated with this type of intensive academic training. All these factors combine to create an extremely stressful academic environment that contributes to the psychological instability of many medical aspirants. The primary aim of this study is to evaluate how gender and preparation history (repeaters vs non-repeaters) affect the psychological health and overall well-being of prospective medical students. "Mental health" and "psychological well-being" are defined as

being inversely correlated (being mentally healthy means not experiencing distress) and having positive functioning (being psychologically well means experiencing a healthy level of functioning). By identifying these correlations, the authors sought to clarify how various demographic subgroups experience different levels of psychological and emotional stress as a result of their participation in high-pressure academic programs. The goals of the current study were to test three different hypotheses related to the main effects of gender and coaching status, as well as their combined and interactive effects, through the use of a factorial design methodology. The descriptive and inferential statistical analyses suggest that the difference between gender-related variables in these training settings is quite significant. Descriptive statistics provided in Table 1 show that boy medical aspirants had consistently higher average scores across all mental health and psychological measures than girl medical aspirants. The results of independent sample *t*-tests provided in Table 2 indicate that these differences are statistically significant, thereby supporting the assertion that gender influences medical aspirants' experiences in these settings.

Thus, the first hypothesis (H1) that girl medical aspirants have lower mental health and psychological well-being compared to boy medical aspirants is entirely supported by the findings. These results strongly correlate with the existing literature regarding academic stress as a function of gender. Studies have consistently shown that girl students tend to be more emotionally vulnerable than boy students; therefore, they also tend to report lower levels of psychosocial well-being within competitive academic environments (Khan et al., 2025; Cen et al., 2021). Psychological mechanisms for this gender-related difference stem from coping strategies and social expectations. Girl aspirants typically employ ruminative coping to deal with academic setbacks. This ruminative coping leads them to internalise their academic shortcomings and view those shortcomings as personal failures, which then creates a substantial decrease in their ability to maintain emotional stability (Johnson & Whisman, 2014). Additionally, adolescent girls residing in the Indian sociocultural context often experience greater family and peer pressure to secure their future goals than their boy counterparts, which causes an additional emotional burden for them. The overwhelming pressure from society limits the development of

the girl aspirant's emotional autonomy and enjoyment of life and thus is reflected in the lower well-being scores that were found in the current study. In addition to the aforementioned gender differences, the study also examined the impact of coaching status and, specifically, whether the aspirants were non-repeaters, who were taking the examination for the very first time, or repeaters, who had spent several years preparing for the examination. The descriptive data presented in Table 1 clearly shows that the non-repeater aspirants have far superior mental health and psychological well-being than do the repeaters.

The findings from the analysis of independent t-tests (shown in Table 3) are significant, with large practical effects of time and type of coaching on the participants' psychology. As such, the results of this hypothesis (H_2), which stated that repeaters would be more likely to have poor mental health and well-being than non-repeaters, have clearly upheld the second hypothesis of this study. There are a plethora of previous educational research studies that have identified the deleterious psychological effects of high-stakes preparation over an extended period of time. For instance, non-repeaters tend to enter coaching with optimism, self-efficacy, and that they view themselves as facing a challenge. Repeaters, however, have to deal with the psychological burden of having previously failed. Because of the previous perceived failure, repeaters' perception of preparing for an entrance exam has shifted from being seen as a challenge to now being perceived as a threat (Putwain et al., 2015). Consequently, repeaters will experience an emotional transition from a motivationally-based study approach to a fear-based preparation approach, which will ultimately lead to emotional exhaustion and burnout. Other studies have also documented an increase in anxiety, a sense of social isolation, and a fear of disappointing one's family among students taking drop years (Marimuthu et al., 2022; Shekhawat et al., 2023). As the preparation time lengthens for repeaters, the repeaters frequently lose their original social support group in exchange for a highly competitive and isolating environment that degrades the repeaters' self-awareness, social well-being, and realistic view of life's situations. Thus, the large effect size of the present research underscores the significance of repeated academic attempts as a significant factor in increasing psychological

distress, substantially overshadowing other demographic characteristics.

Using a two-way ANOVA, the analysis of the interaction effects of the independent variables yielded some of the most important results of this research. Using the ANOVA associated with mental health (Table 4) and psychological well-being (Table 5), a strong interaction effect was noted; although the main effects of both gender and coaching status were statistically significant for both mental health and psychological well-being, the interaction effect was incredibly strong. It was shown that girl repeaters experienced greater negative psychological effects than boy repeaters. Girl repeaters were found to be in the lowest scores for both "mental health" and "psychological well-being" when compared with boys and all other sub-categories; therefore, the data strongly supports the third hypothesis (H_3) that the interaction of gender and coaching status significantly influences the "mental health" and "psychological well-being" of medical aspirants. This interaction effect suggests a "double jeopardy" phenomenon exists for girl repeaters in the Indian medical coaching sector. Girl aspirants already have a number of socio-emotional challenges and repeater status creates a severe amount of academic fatigue; the combined result produces a uniquely vulnerable psychological profile. For example, Graves et al. (2021) reported that the prolonged academic stress on girl aspirants is correlated with their increased vulnerability to the negative impacts on their active problem-solving efforts.

When girl medical students experience a "drop year," this amplifies the ticking social clock related to marriage, social standing, and financial dependence on parents/women due to the increased time pressures they are experiencing. In contrast to boy students who are often given a greater period of time by society to develop their careers, girl students who must repeat a year experience unspoken pressure to make progress towards their ultimate goals. This type of scrutiny creates a pressure cooker effect that along with the academic trauma from previous failures may create learned helplessness. The constant barrage of high expectations and perceived failure strips girl repeaters of an ability to demonstrate control over their environment (mastery) and to internalise positive self-acceptance, resulting in very low levels of mental health and psychological well-being. The ANOVA results also confirm that analysing coaching and gender independently is not

enough, as understanding the impact of medical coaching must be combined with the psychological pressures that exist for girls due to multiple preparatory attempts.

Conclusion

The current research has demonstrated that medical aspirants' mental health and psychological well-being are significantly affected by their gender and coaching status. Girls represent a group of aspirants with poorer "mental health" and "psychological well-being" than boys; repeaters reported lower psychological functioning than non-repeaters. The interaction effect between gender and coaching status indicates that female repeaters experience the highest level of psychological vulnerability, which suggests that the combined impact of prolonged competitive preparation and gender-related challenges creates a higher level of psychological distress. These findings indicate that being repeatedly exposed to high-stakes examination preparation negatively impacts adolescents' psychological functioning and that of the two factors studied (gender and coaching status), coaching status appears to be the stronger predictor of such negative impacts. This highlights the importance of identifying the psychological results of prolonged coaching and repeated testing among medical aspirants.

Implications

The results of this study indicate a need for mental health supports to be built into coaching institutes for medical aspirants who have undergone an extended period of examination preparation. Mental health support can include routine psychological evaluations, access to counselling, stress management programmes, resilience-building workshops, and psychoeducational interventions. Due to results of the current study that confirmed the high level of psychological vulnerability of repeaters, especially female repeaters, it is critical that parents and educators become more aware of how to identify an individual's signs of psychological distress and create an environment that fosters supportive behaviours rather than a performance-based environment.

Future Research Directions

Future research in this area should consider a longitudinal design to explore the ways in which mental health and psychological well-being differ during various periods of competitive examination preparation. Research that utilises larger and more diverse samples across geographical locations would provide more

generalisable findings. Other variables that may mediate or moderate the association between gender and the effect of coaching should be explored such as coping strategies, resilience, self-efficacy, perceived social support, academic motivation, and personality traits. Furthermore, intervention studies to assess the effectiveness of counselling, mindfulness training, stress management training, and resilience-enhancement training for medical aspirants would provide substantive evidence to assist with the development of targeted mental health interventions.

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