

**Original Article**

# CHALLENGES AND COPING MECHANISMS AMONG FIRST-YEAR MBBS STUDENTS IN INDIA

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## ABSTRACT

**Introduction:** First-year MBBS students encounter a wide array of academic, social, and personal challenges during their transition into medical school. These challenges can cause a significant impact on their well-being and academic performance. This study aimed to identify the key issues faced by first-year MBBS students and explore the coping mechanisms they employ to manage stress during their initial year of medical education.

**Materials and Methods:** An online cross-sectional survey was conducted among 256 first-year MBBS students using Google Forms. The survey included questions about demographic information, the primary challenges students faced, their motivations for pursuing medicine, and the coping mechanisms they used. Data were analyzed descriptively to calculate the prevalence of different challenges and coping strategies. The study population consisted of 166 females, 89 males, and 1 other student from various medical colleges in India.

**Results:** The most commonly reported challenge was balancing studies with personal life (22.27%), followed closely by academic pressure and workload (21.88%). Other significant challenges included time management (11.72%), adapting to a new environment (11.72%), and difficulty in understanding course material (7.03%). Students commonly relied on social support (16.20%), exercise (12.50%), and taking breaks (14.81%) as coping mechanisms.

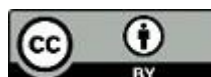
**Conclusions:** First-year MBBS students face significant academic and personal challenges. The results suggest a need for enhanced institutional support, personalized interventions, and structured programs to help students navigate this critical period in their medical education more effectively.

**Keywords:** First-year MBBS students, Challenges, Coping mechanism, Stress

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## **INTRODUCTION**

First-year MBBS students in India encounter a complex array of challenges that span academic, social, and personal domains, reflecting the demanding nature of medical education. The transition from pre-university life to the rigors of medical school is often marked by significant psychological and emotional strain. Studies have shown that adjustment disorder is prevalent among first-year medical students, with approximately 67% of respondents in one study exhibiting signs of this condition within six months of enrollment. This condition is largely attributed to various stressors, including the intense time and work pressure, financial burdens, and the substantial changes in living situations that accompany the start of medical training [1].

Academically, students often find themselves overwhelmed by the sheer volume of content and the rapid pace at which it is delivered, particularly during the Foundation Course (FC). The FC, designed to ease students into the medical curriculum, is intended to provide essential knowledge and skills. However, the course has been criticized by some students for its overwhelming nature, particularly due to the heavy use of technical jargon and the logistical challenges associated with training sessions. Despite these criticisms, other students have expressed satisfaction with the FC, appreciating the structured orientation and the valuable knowledge it imparts. This

dichotomy highlights the varied experiences of students, where some benefit from the organization and content of the program, while others struggle to cope with the academic demands placed upon them [2, 3].

In addition to the challenges posed by the FC, there is a notable gap in students' pre-medical exposure to certain disciplines, such as community medicine. This lack of awareness and understanding prior to formal education underscores the need for better preparatory programs that can provide a more comprehensive introduction to the various fields of medicine. This gap in exposure may contribute to the initial difficulties students face when adapting to the medical curriculum [4].

Another critical factor influencing student performance is their study habits. Research has demonstrated a strong correlation between effective study strategies and academic success, emphasizing the need for students to develop efficient learning techniques early in their medical education. Poor study habits can exacerbate the already considerable pressures faced by first-year students, leading to suboptimal academic outcomes [5].

Beyond academics, personal well-being is a significant concern among first-year MBBS students. Poor sleep quality is a prevalent issue, with studies indicating a notable gender

disparity, where female students report more sleep-related problems than their male counterparts [6]. These sleep issues, coupled with the academic and social pressures of medical school, can severely impact students' mental and physical health.

Orientation programs have been identified as a positive influence in this challenging environment. These programs help to alleviate anxiety, build confidence, and provide students with the tools they need to navigate the complexities of medical education. While some students benefit greatly from these structured introductions to the medical field, others continue to struggle with the demands of the curriculum and issues related to personal well-being, such as sleep quality [7].

In summary, first-year MBBS students in India face a myriad of challenges, including adjustment difficulties, academic overload, and insufficient pre-medical exposure to certain disciplines. While structured orientation and foundation courses provide valuable support for some students, others continue to grapple with the demands of the curriculum and personal well-being issues.

These findings underscore the importance of developing tailored support systems to address the diverse needs of medical students [1-7].

## **MATERIALS AND METHODS**

*Study Design & Participants:* This study was a cross-sectional survey at understanding the challenges that-year MBBS students encounter during their education journey. A total of 256 students participated, representing three medical colleges in North India. To maintain anonymity, participants could choose to remain unidentified when responding to the online survey created via Google Forms. The data were collected over a span of two months, specifically from March to April 2024.

*Questionnaire Development:* The survey Questionnaire was carefully crafted after a thorough review of existing literature related to the challenges experienced by medical students. Questions were tailored to cover a broad spectrum of issues—these include academic, personal, social, & psychological challenges. The questionnaire featured both closed-ended questions and open-ended ones, which enabled students to share their experiences in greater detail. The questions included in the survey are presented in Table 1.

*Data Collection & Analysis:* Responses to the survey were automatically gathered and organized by Google Forms. Data analysis was done via quantitative and qualitative methods. Closed-ended questions received analysis through descriptive statistics. On the

**Table 1. Questions included in the survey questionnaire**

Question	Type
Name (Leave blank if you wish to remain anonymous)	Open ended
Gender	Open ended
Name of your medical college (Optional)	Open ended
Why did you choose to become a doctor?	Open ended
What is the biggest challenge you have faced during your first year of MBBS?	Open ended
Anything else that has been the biggest challenge for you during the first year of MBBS.	Open ended
What are the other challenges you have faced during your first year of MBBS?	Multiple choice
Any other challenges/problems/issues that you faced during your first year in MBBS.	Open ended
What helped you cope with stress during your first year in MBBS?	Open ended
What helped you cope with stress during your first year in MBBS? (Anything else not mentioned above)	Multiple choice
How often did you seek help from your professors or teaching staff?	Multiple choice
How well do you think your medical college supports student well-being?	Multiple choice
What motivates you to continue your studies despite the challenges?	Multiple choice
Any suggestion(s) that you feel would make life easier for a medical student, especially in the first year of MBBS.	Open ended
Any other information that you would like to add personally.	Open ended

other hand, answers to open-ended questions went through thematic analysis, allowing researchers to identify recurring themes and patterns among the various challenges reported by students. These findings provide valuable insights into the diverse challenges encountered by first-year MBBS students and lay the groundwork for recommendations aimed at enhancing student support systems within medical colleges.

## RESULTS

The survey conducted among first-year MBBS students yielded several important insights into the challenges, motivations, and coping mechanisms of these students. A total of 256 students participated in the survey, including 166 females, 89 males, and 1 student who identified as "Other."

### 1. Challenges Faced During the First Year

One of the key questions posed to students

**Table 2. Challenges Faced During the First Year**

Challenge	Female	Male	Other	Total (%)
Balancing Studies with Personal Life	32 (19.28%)	25 (28.09%)	0	57 (22.27%)
Academic Pressure and Workload	33 (19.88%)	22 (24.72%)	1	56 (21.88%)
Adapting to a New Environment	24 (14.46%)	6 (6.74%)	0	30 (11.72%)
Time Management	22 (13.25%)	8 (8.99%)	0	30 (11.72%)
Difficulty in Understanding Course Material	12 (7.23%)	6 (6.74%)	0	18 (7.03%)
Financial Issues	5 (3.01%)	4 (4.49%)	0	9 (3.52%)
Difficulty in Socializing and Making Friends	6 (3.61%)	3 (3.37%)	0	9 (3.52%)
Homesickness	6 (3.61%)	3 (3.37%)	0	9 (3.52%)
Health Problems	6 (3.61%)	2 (2.25%)	0	8 (3.13%)
Hostility from Seniors	3 (1.81%)	4 (4.49%)	0	7 (2.73%)
Lack of Support from Faculty	3 (1.81%)	3 (3.37%)	0	6 (2.34%)

was, "What is the biggest challenge you have faced during your first year of MBBS?" The data shows a wide array of responses, with academic and personal life challenges being the most significant concerns. Below is a breakdown of the responses (Table 2).

The most prevalent issue was "Balancing Studies with Personal Life," reported by 22.27% of students. The second most significant issue was "Academic Pressure and

Workload" (21.88%). This highlights the dual burden faced by students as they try to excel academically while also managing their personal lives.

*2. Motivations for Choosing Medicine*

When asked, "Why did you choose to become a doctor?" the responses reflected a blend of personal ambition, family influence, and career aspirations. Table 3 summarizes the responses.

**Table 3. Motivations for Choosing Medicine**

Motivation	Female	Male	Other	Total (%)
Childhood Dream or Ambition	51 (30.72%)	20 (22.47%)	0	71 (27.73%)
Inspired by a Doctor or Medical Professional	29 (17.47%)	21 (23.60%)	0	50 (19.53%)
Interest in Science and Human Biology	36 (21.69%)	10 (11.24%)	0	46 (17.97%)
Influence of Family and Friends	15 (9.04%)	19 (21.35%)	0	34 (13.28%)
Prestige and Respect in Society	13 (7.83%)	5 (5.62%)	0	18 (7.03%)

**Table 4. Coping Mechanisms**

<b>Coping Mechanism</b>	<b>Female (%)</b>	<b>Male (%)</b>	<b>Total (%)</b>
Talking to Friends and Family	20 (15.50%)	15 (17.24%)	35 (16.20%)
Exercise and Physical Activity	15 (11.63%)	12 (13.79%)	27 (12.50%)
Hobbies and Recreational Activities	18 (13.95%)	10 (11.49%)	28 (12.96%)
Taking Breaks and Rest	18 (13.95%)	14 (16.09%)	32 (14.81%)
Meditation and Mindfulness	12 (9.30%)	7 (8.05%)	19 (8.80%)

The largest motivation for students to pursue medicine was a "Childhood Dream or Ambition" (27.73%), followed by being "Inspired by a Doctor or Medical Professional" (19.53%) and "Interest in Science and Human Biology" (17.97%).

**3. Coping Mechanisms**

Coping mechanisms varied among students, with a preference for talking to friends and family and engaging in physical activities. Table 4 shows the most frequently reported coping mechanisms.

The most common coping strategies were "Talking to Friends and Family" (16.20%) and "Taking Breaks and Rest" (14.81%). A notable minority of students turned to more structured approaches such as meditation and mindfulness, as well as physical activity.

**4. Seeking Help from Professors**

The frequency of students seeking help from their professors varied significantly. The results of the survey are shown in Table 5. The data reveals that while some students sought help occasionally, a significant proportion either rarely or never sought assistance from professors (32.81%).

**5. Institutional Support**

Finally, students were asked to rate the support they received from their medical college in terms of well-being. The distribution of responses is summarized in Table 6. A large portion of students (31.25%) expressed a neutral opinion regarding their institution's support for their well-being, while 21.48% rated the support as poor, and 16.80% as very poor. Only 8.59% of students felt very well supported.

**Table 5. Seeking Help from Professors**

<b>Frequency of Seeking Help</b>	<b>Female (%)</b>	<b>Male (%)</b>	<b>Total (%)</b>
Very Often	8 (4.82%)	6 (6.74%)	14 (5.47%)
Often	25 (15.06%)	15 (16.85%)	40 (15.63%)
Occasionally	47 (28.31%)	37 (41.57%)	84 (32.81%)
Rarely	60 (36.14%)	24 (26.97%)	84 (32.81%)
Never	26 (15.66%)	7 (7.87%)	34 (13.28%)

**Table 6. Institutional Support**

Perceived Support	Female (%)	Male (%)	Total (%)
Very Well	11 (6.63%)	11 (12.36%)	22 (8.59%)
Well	37 (22.29%)	19 (21.35%)	56 (21.88%)
Neutral	52 (31.33%)	28 (31.46%)	80 (31.25%)
Poorly	36 (21.69%)	19 (21.35%)	55 (21.48%)
Very Poorly	30 (18.07%)	12 (13.48%)	43 (16.80%)

The results of this survey indicate that first-year MBBS students face a variety of academic, personal, and social challenges, with balancing studies and personal life being the most prominent issue. While many students find support through family and friends, the data suggests that institutional support, particularly in terms of well-being, may need improvement.

## **DISCUSSION**

The survey results provided a detailed understanding of the multifaceted challenges faced by first-year MBBS students, reinforcing and expanding upon themes highlighted in existing literature. The complexities of balancing academic pressures, personal life, and adapting to a new environment reveal significant stressors that these students face. In this discussion, we will critically examine these challenges, their interrelationships, and the coping mechanisms students utilize, drawing connections to the research outlined in the introduction.

### *Academic Pressure and Work-Life Balance*

The survey found that 22.27% of students reported "Balancing Studies with Personal

Life" as their biggest challenge, closely followed by "Academic Pressure and Workload" (21.88%). These results are consistent with findings from Agarwal and India (2024), who identified adjustment disorder as a prevalent issue among first-year students due to stressors like intense time and work pressure [1]. The academic overload experienced by first-year students is further exacerbated by the demanding nature of the Foundation Course (FC), which is intended to ease students into the medical curriculum but often ends up overwhelming them with technical jargon and logistical complexities [2].

Interestingly, while many students find it difficult to maintain a balance between academic responsibilities and personal life, the introduction of structured programs like the FC and orientation sessions has shown potential in alleviating some of these pressures. Studies suggest that these programs help build confidence and provide essential skills to navigate the medical curriculum [3]. However, as reflected in the survey, these benefits are not uniformly experienced by all students. For

some, the FC adds to the overwhelming nature of their first year, while for others, it provides much-needed structure and guidance.

This disparity in experiences suggests that a one-size-fits-all approach to the FC may not be the most effective strategy for addressing the varied needs of students. Tailoring the program to individual needs, perhaps through more personalized support systems or flexibility in pacing, could help mitigate the overwhelming nature of academic work during the first year.

#### *Adapting to a New Environment and Time Management*

Adaptation to the medical school environment emerged as a significant challenge for many students. The transition from pre-university life to medical education involves adapting to a new academic environment, social setting, and often a new living situation. This adjustment difficulty was highlighted by 11.72% of respondents. Similar findings were noted in the literature, where the initial months of medical education are marked by substantial psychological strain due to these environmental and social transitions [4].

Time management, reported by 11.72% of students as their biggest challenge, plays a critical role in how well students adapt to the academic rigors of medical school. Poor time

management has been linked to exacerbating feelings of being overwhelmed, leading to suboptimal academic outcomes. The need for efficient study habits is well-documented, with research suggesting that early development of effective learning techniques can significantly alleviate academic pressures [5].

The survey results also indicated that students who were able to develop effective time management strategies often cited them as coping mechanisms for stress, suggesting that interventions aimed at improving time management skills could play a crucial role in helping students adjust to medical school. These could include workshops on study habits, structured schedules, or mentoring programs where senior students share their experiences and strategies for managing time effectively.

#### *Social and Psychological Challenges*

Another aspect of the survey results relates to the social and psychological challenges faced by students. Difficulty in socializing and making friends, homesickness, and health problems were reported by a significant portion of the cohort. Social isolation, in particular, is known to exacerbate feelings of stress and anxiety, making it difficult for students to cope with the demands of medical education.



A notable 3.52% of respondents indicated that they struggled with homesickness, while 3.52% reported difficulty in making friends and 3.13% cited health problems. These issues, though reported by a smaller percentage of students, can compound the academic stress experienced during the first year. Literature highlights that poor social integration can negatively impact a student's mental health, making it more difficult to manage academic pressures and personal responsibilities [6].

The impact of these social and psychological challenges on academic performance cannot be understated. While academic difficulties are often the most visible signs of distress, underlying social and psychological issues frequently contribute to these struggles. It is imperative that medical colleges recognize the importance of fostering a supportive and inclusive social environment to help students adjust more effectively. Programs that encourage socialization, peer support groups, and counseling services can provide critical support to students facing these challenges.

### *Gender Disparities in Stress and Coping Mechanisms*

The survey also revealed gender disparities in the challenges faced and the coping mechanisms used by students. Female students were more likely to report issues with balancing personal life and academic demands, while male students reported a higher incidence of academic pressure and

workload challenges. These findings align with previous studies that have shown gender differences in how students perceive and manage stress [7].

In terms of coping mechanisms, female students were more likely to engage in activities like talking to friends and family, while male students were more likely to engage in physical activity or exercise. These gender-specific coping strategies are consistent with existing literature, which suggests that women tend to rely more on social support networks, whereas men may turn to physical outlets for stress relief [1,7].

This gender disparity in coping strategies suggests that support systems need to be gender-sensitive, providing both social and physical outlets for stress relief. For female students, peer counseling and social support groups may be more effective, while male students may benefit from programs that encourage physical activity as a means of managing stress.

### *Institutional Support and Well-being*

The survey results also brought to light concerns about institutional support for student well-being. While 31.25% of students reported a neutral perception of their institution's support for well-being, a significant 21.48% rated it as poor, and 16.80% rated it as very poor. This indicates that a substantial portion of students feel that their institutions are not adequately

addressing their well-being needs.

This finding is particularly concerning, as literature has shown that institutional support plays a crucial role in alleviating stress and promoting student well-being. Programs that focus on student well-being, such as mental health services, academic tutoring, and social support systems, have been shown to improve students' overall experience and reduce the risk of burnout [7]. However, the survey results suggest that these programs may not be reaching all students effectively, or that there are gaps in how these services are delivered.

One possible explanation for this gap is the variability in how different students perceive and access institutional support. While some students may actively seek out support services, others may be reluctant to do so due to stigma or lack of awareness. This underscores the importance of making support services more visible and accessible to all students, perhaps through mandatory orientation sessions, regular check-ins, or integrating mental health and well-being into the curriculum itself.

#### *Implications for Future Interventions*

The results of this study highlight the need for medical institutions to adopt a more holistic approach to supporting first-year students. Academic challenges, while significant, are only one aspect of the difficulties students face. Personal, social, and psychological

factors also play critical roles in shaping the student experience, and addressing these issues requires comprehensive support systems that go beyond academic tutoring.

Institutions must consider developing tailored interventions that address the diverse needs of students. For instance, time management workshops, peer mentoring programs, and increased access to counseling services could help alleviate some of the pressures faced by first-year students. Additionally, creating a more inclusive and supportive social environment could help mitigate feelings of isolation and homesickness, which are common during the first year of medical school.

Furthermore, the gender differences observed in both challenges and coping mechanisms suggest that interventions should be gender-sensitive, offering a range of support options that cater to the different ways in which male and female students cope with stress.

## **CONCLUSION**

In conclusion, the survey results provide valuable insights into the challenges faced by first-year MBBS students. Academic pressures, personal life balance, and social integration are key areas of concern, and the coping mechanisms employed by students reflect a range of strategies for managing these challenges. However, the variability in how students experience and cope with stress highlights the need for more

personalized and comprehensive support systems. By addressing the academic, personal, and social needs of students in a more targeted and gender-sensitive manner, medical institutions can help improve the overall well-being and academic success of their students.

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