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ORIGINAL ARTICLE

**Exploring the regrets for joining medical profession and Its Determinants Among Phase I MBBS Students: A Mixed-Methods Study**

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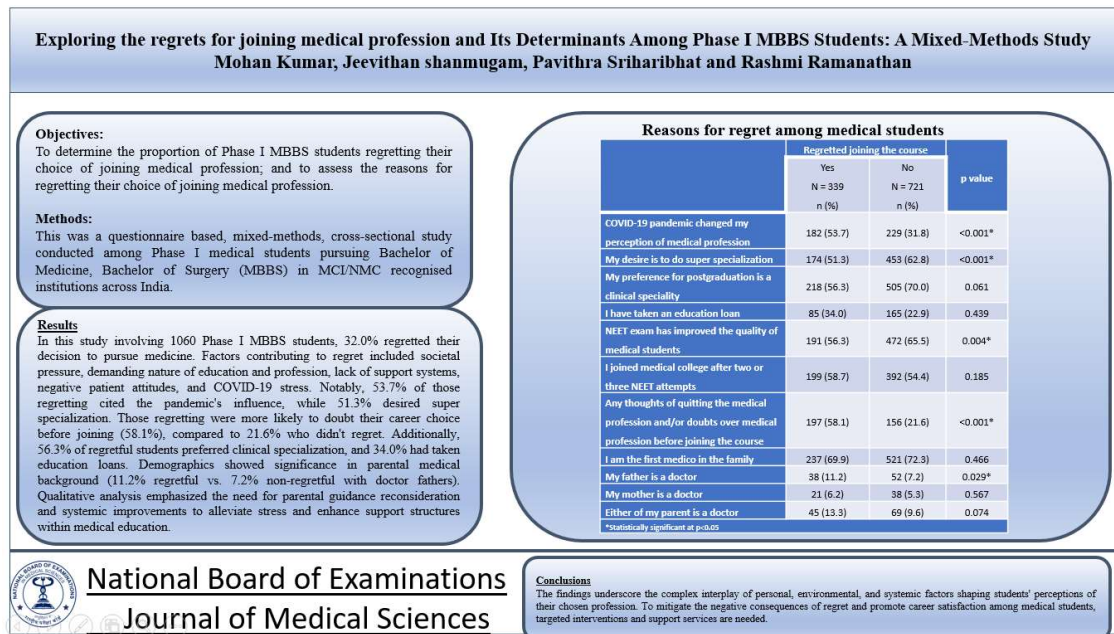
**Abstract**

**Objectives:** To determine the proportion of Phase I MBBS students regretting their choice of joining medical profession; and to assess the reasons for regretting their choice of joining medical profession. **Methods:** This was a questionnaire based, mixed-methods, cross-sectional study conducted among Phase I medical students pursuing Bachelor of Medicine, Bachelor of Surgery (MBBS) in MCI/NMC recognised institutions across India. **Results:** In this study involving 1060 Phase I MBBS students, 32.0% regretted their decision to pursue medicine. Factors contributing to regret included societal pressure, demanding nature of education and profession, lack of support systems, negative patient attitudes, and COVID-19 stress. Notably, 53.7% of those regretting cited the pandemic's influence, while 51.3% desired super specialization. Those regretting were more likely to doubt their career choice before joining (58.1%), compared to 21.6% who didn't regret. Additionally, 56.3% of regretful students preferred clinical specialization, and 34.0% had taken education loans. Demographics showed significance in parental medical background (11.2% regretful vs. 7.2% non-regretful with doctor fathers). Qualitative analysis emphasized the need for parental guidance reconsideration and systemic improvements to alleviate stress and enhance support structures within medical education. **Conclusion:** The findings underscore the complex interplay of personal, environmental, and systemic factors shaping students' perceptions of their chosen profession. To mitigate the negative consequences of regret and promote career satisfaction among medical students, targeted interventions and support services are needed.

**Keywords:** Regret, Medical student, India, Career, Satisfaction

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## Graphical Abstract



## Introduction

The pursuit of a career in medicine is often regarded as a noble and esteemed endeavour, attracting individuals with a passion for healing and a desire to serve humanity [1]. However, the journey towards becoming a medical professional is not without its challenges, and the decision to embark on this path is a significant one that can shape the course of one's life and career [2]. In recent years, there has been growing interest in understanding the factors influencing career satisfaction and decision-making among medical students, particularly in light of the evolving landscape of healthcare and medical education.

The present study aims to explore the phenomenon of regret among Phase I MBBS students – those in the initial phase of their Bachelor of Medicine, Bachelor of Surgery (MBBS) training – regarding their decision to pursue a career in medicine. Regret, defined as the feeling of disappointment or remorse over a past

decision, is a complex and multifaceted emotion that can have profound implications for individuals' well-being, career trajectories, and overall satisfaction with their chosen profession [3,4]. While previous research has examined various aspects of medical education and career satisfaction, limited attention has been paid to the experience of regret among medical students and its underlying causes [5-7].

Understanding the factors contributing to regret among Phase I MBBS students is crucial for informing interventions and support services aimed at promoting career satisfaction and well-being within the medical profession [8]. To address this gap in the literature, the present study employs a mixed-methods approach, combining quantitative analysis of survey data with qualitative exploration of participants' experiences and perspectives. By examining both the prevalence of regret and the reasons behind it, this study seeks to provide a comprehensive understanding of the challenges faced by Phase I MBBS

students and the factors influencing their perceptions of their chosen profession.

The findings of this study have the potential to inform medical education policy, curriculum development, and support services aimed at enhancing student well-being and career satisfaction. By identifying the sources of regret and addressing them proactively, medical schools and healthcare institutions can create a more supportive and fulfilling learning environment for future medical professionals.

Against this background, the objectives of the present study were to determine the proportion of Phase I MBBS students regretting their choice of joining medical profession; and to assess the reasons for regretting their choice of joining medical profession.

### **Materials and Methods**

This was a questionnaire based, mixed-methods, cross-sectional study conducted among Phase I medical students pursuing Bachelor of Medicine, Bachelor of Surgery (MBBS) in MCI/NMC recognised institutions across India. The study was approved by the Institutional Human Ethics Committee (IHEC), KMCH Institute of Health Sciences and Research, Coimbatore, Tamil Nadu, India (40/IHEC/2020). All Phase I medical students willing to provide informed written consent were included in the present study.

A purpose predesigned questionnaire was used through Google Forms platform – the need for the study was explained in the first section; participant rights and data confidentiality statement was provided in second section along with willingness to participate in the study using

a “I consent to participate in the study” tab. Participants willing to participate continued filling the questionnaire, while those not consenting to participate submitted the form/logged out. The Google Forms link was shared with potential participants through social media platforms (including Facebook, Twitter), known/unknown, direct/indirect, formal/informal contact networks.

The quantitative data was analysed using SPSS v27. Descriptive analysis was presented using numbers and percentages for categorical variables; mean (standard deviation) or median (interquartile range) for continuous variables. To test for association, we used Chi square test or Fisher’s exact test for categorical variables; and independent ‘t’ test for continuous variables. Statistical significance was considered at  $p < 0.05$ . The qualitative data obtained was analysed using manual, theoretical thematic content analysis following the steps endorsed in Braun and Clarke’s six-phase framework [9]. The transcripts were read and re-read to ensure familiarity with the data corpus. Also, the notes were made, and early impressions jotted down. The data was then organized in a systematic meaningful way by generating codes. Because each open-ended question was thematically enquired about, the data was thematically sorted to start with. However, it was ensured whether the themes make sense, data supports these themes, trying to fit too much into a theme, there any overlaps, any subthemes within predetermined themes, or other novel themes within the data. The results was presented according to the themes. Under each theme, codes and supportive manually chosen verbatims were provided (Tables 1 and 2).

Table 1. Reasons for regret among medical students

|   | Regretted joining the course |                        | p value |
|---|------------------------------|------------------------|---------|
|   | Yes<br>N = 339<br>n (%)      | No<br>N = 721<br>n (%) |         |
| COVID-19 pandemic changed my perception of medical profession   | 182 (53.7)                   | 229 (31.8)             | <0.001* |
| My desire is to do super specialization   | 174 (51.3)                   | 453 (62.8)             | <0.001* |
| My preference for postgraduation is a clinical speciality   | 218 (56.3)                   | 505 (70.0)             | 0.061   |
| I have taken an education loan  | 85 (34.0)                    | 165 (22.9)             | 0.439   |
| NEET exam has improved the quality of medical students  | 191 (56.3)                   | 472 (65.5)             | 0.004*  |
| I joined medical college after two or three NEET attempts   | 199 (58.7)                   | 392 (54.4)             | 0.185   |
| Any thoughts of quitting the medical profession and/or doubts over medical profession before joining the course | 197 (58.1)                   | 156 (21.6)             | <0.001* |
| I am the first medico in the family   | 237 (69.9)                   | 521 (72.3)             | 0.466   |
| My father is a doctor   | 38 (11.2)                    | 52 (7.2)               | 0.029*  |
| My mother is a doctor   | 21 (6.2)                     | 38 (5.3)               | 0.567   |
| Either of my parent is a doctor   | 45 (13.3)                    | 69 (9.6)               | 0.074   |
| *Statistically significant at p<0.05  |                              |                        |         |

Table 2. Verbatims of medical students, as reasons for regretting the decision to join medical profession

| Theme              | Verbatim  |
|--------------------|---|
| Reasons for regret | Verbatim: "For people like me who come from a middle-class family, being 'settled' is a pressure. Medicine is considered a non-risky job by parents."<br><br>Verbatim: "Exams, hectic duty schedules are the times I regret the most" |

|  |  |
|--|--|
|  | <p>Verbatim: “The lack of supportive environment in medical colleges is what makes me regret”</p> <p>Verbatim: “Attitudes of patients towards doctors, abuse, treatments make me regret my choice of serving them”</p> <p>Verbatim: “Atrocious behaviours of patients towards doctors; I have even thought of moving abroad”</p> <p>Verbatim: “COVID-19 has definitely increased the stress levels; particularly I am concerned about my family who are at a long distance”</p> <p>Verbatim: “My inability to perform well in academics has made my MBBS life stressful”</p> <p>Verbatim: “Lack of clarity regarding licensing exams, NEXT; and always changing NMC guidelines regarding these is very stressful”</p> <p>Verbatim: “We were ill-informed regarding the course; the working hours are insane; no role models; I have started using substances to cope with stress”</p> <p>Verbatim: “Career choices that parents put forward to children should change”</p> |
|--|--|

## Results

A total of 1060 Phase I MBBS students participated in the present study. Nearly two third participants were males (63.6%) and one third were females (36.4%). The results showed that 339 (32.0%) students regretted the decision to join MBBS/medical profession. We conducted tests of association to determine the potential reasons for medical students to regret joining MBBS/medical profession.

The results showed that 53.7% of those who regretted joining the course reported that the COVID-19 pandemic changed their perception of the medical profession, compared to 31.8% of those who did not regret joining – a statistically significant difference ( $p < 0.05$ ). More than

half (51.3%) the participants who regretted joining expressed a desire for super specialization, whereas 62.8% of those who did not regret expressed the same desire – a statistically significant difference ( $p < 0.05$ ). Other results showed that 56.3% of those who regretted joining believed that the NEET exam has improved the quality of medical students, while 65.5% of those who did not regret held the same belief; 58.1% of those who regretted joining had thoughts of quitting the medical profession and/or doubts over it before joining, while only 21.6% of those who did not regret had the same thoughts; and 11.2% of those who regretted joining had a father who is a doctor, while 7.2% of those who did not regret had the same – these differences were

found to be statistically significant ( $p < 0.05$ ).

More than half (56.3%) of those who regretted joining preferred a clinical specialty for postgraduation, while 70.0% of those who did not regret had the same preference; however, the difference was not statistically significant difference ( $p > 0.05$ ). Other results showed that 34.0% of those who regretted joining had taken an education loan, compared to 22.9% of those who did not regret; 58.7% of those who regretted joining joined medical college after two or three NEET attempts, compared to 54.4% of those who did not regret; 69.9% of those who regretted joining were the first medicos in their family, compared to 72.3% of those who did not regret; 6.2% of those who regretted joining had a mother who is a doctor, compared to 5.3% of those who did not regret; and 13.3% of those who regretted joining had either of their parents as doctors, while 9.6% of those who did not regret had the same – these differences were not found to be statistically significant ( $p > 0.05$ ).

### ***Qualitative analysis***

The reasons cited by Phase I MBBS students for regretting their decision to join medical profession included societal pressure, especially from middle-class families, to pursue a career perceived as non-risky like medicine, in order to achieve stability. Regret was also linked to the demanding nature of medical education and profession, particularly due to the stress induced by exams and hectic duty schedules. Participants cited the absence of a supportive environment within medical colleges as a contributing factor to their regret, indicating a need for better support systems. The negative attitudes and

behaviours of patients towards doctors, including abuse and threats, were mentioned as reasons for regretting the choice of the medical profession. Some participants expressed extreme distress caused by the behaviours of patients and even contemplated moving abroad to escape such treatment.

The COVID-19 pandemic was highlighted as a source of increased stress, particularly concerning the health and safety of distant family members. The inability to perform well in academic endeavours during the MBBS program was mentioned as a significant stressor leading to regret. Participants expressed stress and regret due to the lack of clarity regarding licensing exams, such as the NEXT exam, and the frequent changes in guidelines by regulatory bodies like the NMC. Lack of information about the course structure, excessive workload, absence of role models, and resorting to substances to cope with stress were highlighted as contributing factors to regret. Some participants suggested a need for a shift in parental influence regarding career choices, indicating that traditional career paths should be reconsidered. These responses collectively illustrate various personal, environmental, and systemic factors contributing to regret among medical students and professionals.

### **Discussion**

With the objective of determining the proportion of Phase I MBBS students regretting their choice of joining medical profession; and assessing the reasons for regretting their choice of joining medical profession, the results of the present study showed that nearly one third (32.0%) of Phase I MBBS students regretted their decision to join the medical profession.

This highlights an important aspect of career satisfaction and decision-making among medical students. Regret regarding career choice is a significant issue in medical education that can have implications for students' well-being, academic performance, and future career trajectories [10]. Regretting the decision to pursue medicine can lead to heightened stress, anxiety, and burnout among medical students [11]. Studies have shown that medical students experience high levels of psychological distress, with factors such as academic pressure, workload, and uncertainty about the future contributing to their mental health challenges [12]. Understanding the factors contributing to this regret is essential for promoting student satisfaction and retention within the medical profession [13].

The quantitative findings from the study shed light on various personal, environmental, and systemic factors contributing to regret among Phase I MBBS students. These factors include societal pressure, demanding nature of medical education and profession, lack of support systems, negative patient interactions, impact of the COVID-19 pandemic, uncertainty about licensing exams, and parental influence on career choices. It's intriguing to note that over half of the students who regretted joining the medical profession cited the COVID-19 pandemic as a significant factor influencing their perception [14]. This finding highlights the profound impact of external events on individuals' career decisions and underscores the need for resilience and adaptability in the medical profession, especially during times of crisis like a pandemic [15]. The statistically significant difference in the desire for super specialization or clinical speciality for

postgraduation between students who regretted and those who did not regret their choice indicates varying career aspirations within the medical student population.<sup>[16]</sup> This finding suggests that individuals' career goals and expectations play a crucial role in their satisfaction with their chosen profession. The contrasting beliefs regarding the impact of the NEET exam on the quality of medical students raise questions about the effectiveness and fairness of medical entrance exams [17]. Further research could explore students' perceptions of the exam's utility and its alignment with their educational and career objectives [18]. The higher prevalence of pre-existing doubts and thoughts of quitting the medical profession among students who regretted their choice underscores the importance of career counselling and support services for medical students [19]. Addressing these doubts early on may help prevent future regret and improve overall career satisfaction. The lack of statistically significant differences in family background and education loan uptake suggests that these factors may not directly influence career satisfaction among Phase I MBBS students. However, exploring the impact of familial expectations and financial pressures on career decisions warrants further investigation [20].

The qualitative findings showed that the pressure from middle-class families to pursue a career perceived as stable, such as medicine, highlights the influence of societal expectations on career decisions. This finding resonates with previous research emphasizing the role of familial and societal pressures in shaping career choices among medical students [21]. Addressing misconceptions about career stability and promoting career diversity within medical education may help

alleviate such pressures. The demanding nature of medical education and profession, characterized by stress from exams and hectic duty schedules, emerged as a significant source of regret among participants. This finding aligns with existing literature highlighting the high levels of stress and burnout among medical students and professionals [22]. Introducing interventions to enhance coping mechanisms, promote work-life balance, and provide mental health support can mitigate the negative impact of these stressors. The absence of a supportive environment within medical colleges underscores the importance of fostering a culture of support and mentorship among faculty and peers. Creating avenues for peer support, mentorship programs, and counselling services can enhance student well-being and satisfaction with their educational experience. Participants' experiences of negative attitudes and behaviours from patients, including abuse and threats, highlight the challenges faced by medical professionals in their interactions with patients. Addressing patient-provider communication, promoting empathy training, and implementing measures to ensure the safety of healthcare workers can mitigate the impact of such negative interactions [23-25].

The heightened stress and anxiety caused by the COVID-19 pandemic, particularly concerning the health and safety of distant family members, underscore the need for enhanced support mechanisms and resilience-building strategies during times of crisis. The lack of clarity regarding licensing exams and frequent changes in guidelines by regulatory bodies contribute to student distress and regret [26]. Ensuring

transparent communication, providing adequate preparatory resources, and involving stakeholders in decision-making processes can address these concerns. The resorting to substances to cope with stress highlights the importance of addressing mental health issues and promoting healthy coping mechanisms among medical students [27]. Implementing stress management programs and destigmatizing help-seeking behaviours can support student well-being. Participants' suggestions regarding a shift in parental influence on career choices underscore the need for promoting autonomy and exploration in career decision-making processes [28]. Encouraging open dialogue and providing career guidance resources can empower students to make informed choices aligned with their interests and values.

Addressing the root causes of regret among medical students requires multifaceted interventions at both individual and systemic levels. Medical schools and healthcare institutions can implement support services such as mentorship programs, counselling services, stress management workshops, and resilience-building activities to help students cope with the challenges of medical education and practice. Additionally, efforts to promote a supportive learning environment, enhance communication skills, foster empathy, and address systemic issues such as workload and regulatory changes can contribute to reducing student regret and promoting career satisfaction [29].

Regarding future research, longitudinal studies can investigate the impact of regret on academic performance, career satisfaction, specialty choice, and overall well-being throughout medical



training and beyond. Understanding the trajectories of students who experience regret can inform targeted interventions and support services to mitigate the negative consequences and promote positive outcomes.

### **Conclusion**

This study documents the proportion of Phase I MBBS students who regret their decision to join the medical profession and explored the underlying reasons for their regrets like societal pressure, the demanding nature of medical education and profession, lack of support systems, negative patient interactions, impact of the COVID-19 pandemic, uncertainty about licensing exams, and parental influence on career choices. The finding that 32.0% of participants experienced regret highlights the importance of influencing career satisfaction and decision-making among medical students. These findings underscore the complex interplay of personal, environmental, and systemic factors shaping students' perceptions of their chosen profession. To mitigate the negative consequences of regret and promote career satisfaction among medical students, targeted interventions and support services are needed. Medical schools and healthcare institutions can implement initiatives such as mentorship programs, counselling services, stress management workshops, and resilience-building activities. Additionally, efforts to foster a supportive learning environment, enhance communication skills, promote empathy, and address systemic issues can contribute to reduction in students regret and enhancing overall well-being.

### **Ethical Approval**

The study was approved by the Institutional Human Ethics Committee (IHEC), KMCH Institute of Health Sciences and Research, Coimbatore, Tamil Nadu, India (40/IHEC/2020).

### **Conflicts of interest**

The authors declares that they do not have conflict of interest.

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