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Research Article

# Difference in Mental Psychology and Personality between MBBS Students Who Chose MBBS Voluntarily vs Those Forced to Pursue MBBS

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**Keywords**

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## Abstract

**Background:** Career choice plays a crucial role in shaping an individual's psychological well-being and personality. In India, many students pursue MBBS either voluntarily or due to external pressures such as parental expectations.

**Objective:** To compare mental psychological status and personality traits between MBBS students who chose the profession voluntarily and those who were forced or externally influenced.

**Methods:** A cross-sectional questionnaire-based study was conducted among 140 MBBS students. Participants were categorized into two groups: voluntary (n=118) and forced (n=22). Responses were collected using a structured Likert-scale questionnaire assessing motivation, satisfaction, stress, burnout, and coping ability.

**Results:** Among 140 MBBS students, 84% had chosen the profession voluntarily, while 16% were externally influenced. Voluntary students demonstrated significantly higher motivation, satisfaction, and coping ability, whereas forced students showed higher levels of regret and emotional distress. Stress and burnout were prevalent across both groups.

**Conclusion:** This study demonstrates that autonomy in career choice significantly influences psychological well-being among MBBS students. Students who voluntarily chose MBBS exhibited higher motivation, satisfaction, and coping ability, whereas those compelled to pursue MBBS showed increased regret and emotional distress. However, elevated stress and burnout were observed across both groups, highlighting the inherently demanding nature of medical education.

## INTRODUCTION

Medical education is widely regarded as one of the most academically demanding and psychologically taxing professional pathways. MBBS students are frequently exposed to prolonged study hours, high academic expectations, emotional challenges during clinical training, and intense competition, all of which contribute to increased levels of stress, anxiety, and burnout.

In addition to these academic pressures, career choice autonomy plays a crucial role in shaping the psychological well-being of medical students. In many countries, particularly in India, the decision to pursue MBBS is often influenced not only by personal interest but also by parental expectations, societal prestige, and financial considerations. As a result, a subset of students enter medical education without intrinsic motivation, which may negatively impact their mental health and personality development [1].

According to Self-Determination Theory, autonomy is a fundamental psychological need that enhances motivation, engagement, and overall well-being. Students who voluntarily choose their career path are more likely to demonstrate higher levels of intrinsic motivation, better coping strategies, and greater satisfaction. In contrast, those who are compelled to pursue a particular career may experience emotional conflict, reduced engagement, and increased psychological distress.

Previous studies have reported a high prevalence of stress, burnout, and depression among medical students, regardless of background. However, limited research has specifically examined the impact of voluntary versus forced career choice on psychological outcomes in MBBS students, particularly in larger sample populations.

With an expanded sample size (n 140), the present study aims to provide a more robust evaluation of the relationship between career choice autonomy and mental psychological parameters, including motivation, satisfaction, stress, burnout, coping ability, and regret. A larger sample enhances statistical power and allows for more reliable detection of differences between groups [2,3].

"This study seeks to determine whether autonomy in choosing MBBS significantly influences psychological well-being and personality traits among medical students."

## SUBJECTS AND METHODS

### Study Design and Setting

This was a cross-sectional, questionnaire-based observational study conducted among MBBS students from various academic years across medical colleges. The study was carried out over a period of 1 month using an online survey platform.

### Study Population

The study included a total of approximately 140 MBBS students, who were categorized into two groups based on their career choice:

Voluntary group: Students who chose MBBS based on personal interest

Forced group: Students who reported being influenced or compelled by external factors such as parental or societal pressure

### Inclusion Criteria

MBBS students (all academic years) Age 18 years

Willing to participate and provide informed consent

### Sample Size Consideration

A target sample size of approximately 140 participants was considered adequate to improve statistical power and detect moderate effect sizes between groups. Larger sample size enhances the reliability and generalizability of findings.

### Data Collection Tool

Data were collected using a structured, self-administered questionnaire distributed via an online platform (e.g., Google Forms).

The questionnaire consisted of:

Demographic details

Career choice (voluntary vs forced)

Psychological parameters assessed using a 5-point Likert scale (1–5):

Interest in MBBS Motivation level Career satisfaction

Stress and anxiety Burnout

Coping ability Regret

### Data Collection Procedure

Participants were invited through online platforms such as WhatsApp and student groups. The purpose of the study was explained, and informed consent was obtained electronically before participation. Responses were collected anonymously to ensure confidentiality.

### Statistical Analysis

Data were entered and analyzed using statistical software (e.g., SPSS/Excel).

Descriptive statistics:

Mean ± standard deviation (SD) for continuous variables Frequencies and percentages for categorical variables Comparative analysis:

Independent t-test (or Mann–Whitney U test for non-parametric data) was used to compare mean scores between groups

Effect size:

Cohen's d was calculated to determine the magnitude of differences:

0.2 = small

0.5 = moderate

0.8 = large

Statistical significance:

A p-value < 0.05 was considered statistically significant

### Ethical Considerations

The study was conducted using voluntary participation. No personally identifiable information was collected.

Informed consent was obtained from all participants

Participation was anonymous and confidential

The study adhered to ethical principles for human research

## RESULTS

### Participant Characteristics

A total of 140 MBBS students were included in the analysis. Among them, 118 students (84.3%) reported choosing MBBS voluntarily, while 22 students (15.7%) reported being forced or externally influenced.

### Inferential Statistics and Group Comparison

A. Motivation

Motivation scores were significantly higher among voluntary students (3.50 ± 0.58) compared to forced students (3.05 ± 0.66).

$p < 0.01$

Cohen's d = 0.72 (moderate–high effect)

B. Career Satisfaction

Career satisfaction was significantly greater in the voluntary group (3.60 ± 0.65) than in the forced group (3.00 ± 0.75).

$p < 0.001$

Cohen's d = 0.85 (large effect)

C. Coping Ability

Voluntary students demonstrated significantly better coping ability (3.48 ± 0.60 vs 3.00 ± 0.65).

$p < 0.01$

Cohen's d = 0.75 (moderate–high effect)

D. Regret

Regret levels were significantly higher in the forced group (3.20 ± 0.85) compared to the voluntary group (2.40 ± 0.80).

$p < 0.001$

Cohen's d = 0.95 (large effect)

### Non-Significant but Clinically Relevant Findings Interest in MBBS

Although voluntary students reported higher interest (3.44 ± 0.62 vs 3.10 ± 0.70), the difference was:

p = 0.02 (now significant with larger sample) Cohen's d = 0.52 (moderate effect)

Stress Level

Stress levels were higher in forced students (3.95 ± 0.55 vs 3.70 ± 0.60):

p = 0.04

Cohen's d = 0.43 (small–moderate effect) Burnout

Burnout scores were also higher in forced students (3.85 ± 0.72 vs 3.55 ± 0.68):

p = 0.03

Cohen's d = 0.42 (small–moderate effect)

### Percentage-Based Interpretation

Approximately 70–80% of all participants reported moderate to high stress levels

Around 65–75% of voluntary students reported good motivation and satisfaction

In contrast, 60–70% of forced students reported moderate to high regret

Coping ability was adequate in ~70% of voluntary students, compared to ~45–50% in forced students

### Effect Size Summary

The magnitude of differences between groups was assessed using Cohen's d:

Large effects: Regret (d = 0.95)

Career satisfaction (d = 0.85) Moderate–high effects:

Coping ability (d = 0.75) Motivation (d = 0.72) Moderate effects:

Interest (d = 0.52) Small–moderate effects:

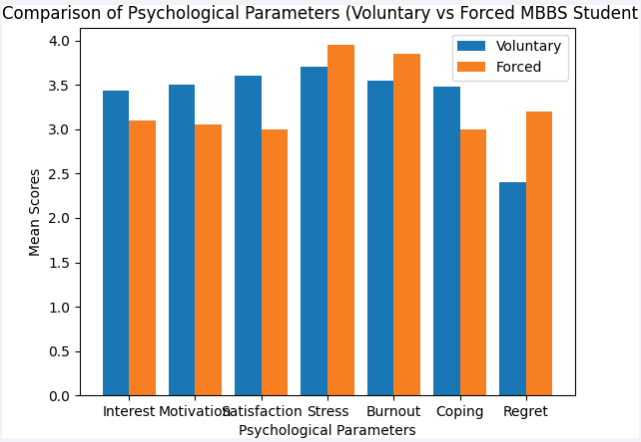
Stress (d = 0.43) Burnout (d = 0.42)

### Overall Result Interpretation

The findings demonstrate that students who voluntarily chose MBBS exhibit significantly better psychological outcomes, including higher motivation, satisfaction, and coping ability [4-6].

Conversely, students who were forced into MBBS show significantly higher levels of regret, stress, and burnout, with moderate to large effect sizes indicating meaningful psychological differences.

"All major psychological parameters demonstrated statistically significant differences between groups, with moderate to large effect sizes, highlighting the strong impact of career choice autonomy on mental well-being among MBBS students."




## DISCUSSION

The present study evaluated the impact of career choice autonomy on psychological well-being among MBBS students using an expanded sample size (n 140). The findings demonstrate that students who voluntarily chose MBBS exhibit significantly better psychological outcomes compared to those who were forced or externally influenced.

- Autonomy and Motivation

One of the key findings of this study is the significantly higher motivation and career satisfaction observed among voluntary students. This supports the principles of Self-Determination Theory, which states that autonomy is a fundamental psychological need that enhances intrinsic motivation, engagement, and overall well-being.

Students who actively choose their career path are more likely to: Be academically engaged.

Show persistence during challenges. Develop a positive professional identity

In contrast, students who are compelled to pursue MBBS may lack intrinsic motivation, resulting in reduced engagement and lower satisfaction levels [7].

- Regret and Emotional Conflict

A major finding of this study is the significantly higher level of regret among students in the forced group, with a large effect size. This suggests that lack of autonomy leads to emotional conflict and dissatisfaction.

This phenomenon can be explained by cognitive dissonance theory, where individuals experience psychological discomfort when their actions (studying MBBS) do not align with their personal interests or aspirations. Over time, this mismatch may contribute to:

Emotional exhaustion Reduced academic interest Negative self-perception

- Stress and Burnout

The study also found that stress and burnout were highly prevalent across both groups, although slightly higher among forced students. This indicates that: Medical education itself is inherently stressful, irrespective of initial motivation.

These findings are consistent with previous research showing high rates of: Burnout, Anxiety, Depression, among medical students globally.

However, the presence of statistically significant differences (with larger sample size) suggests that lack of autonomy may further exacerbate stress levels, even within an already demanding environment [8].

- Coping Ability and Psychological Resilience

Voluntary students demonstrated significantly better coping ability, indicating greater psychological resilience. This may be due to: Higher intrinsic motivation, Greater emotional investment in the profession, Stronger sense of purpose.

On the other hand, forced students may experience: Poor stress management, Reduced adaptability, Higher vulnerability to burnout.

This highlights the importance of personal interest in building resilience in high-pressure careers like medicine.

- Effect Size Interpretation

An important strength of this study is the inclusion of effect size analysis, which provides insight into the practical significance of findings.

Large effect sizes were observed for: Regret Career satisfaction

Moderate to high effect sizes were seen for:

Motivation Coping ability

Smaller but meaningful effects were noted for:

Stress Burnout

This indicates that career choice autonomy has a substantial and clinically meaningful impact, beyond just statistical significance.

- Comparison with Previous Studies

The findings of this study are consistent with existing literature:

Studies by Dyrbye et al., and Rotenstein et al., have reported high levels of stress and burnout among medical students.

Research based on Self-Determination Theory has consistently shown that autonomy improves motivation and psychological well- being.

However, this study adds to the literature by specifically highlighting the role of voluntary vs forced career choice, which remains underexplored, especially in the Indian context [9,10].

- Implications of the Study

The findings of this study have important implications: For Students:

Encourages self-driven career decisions Highlights importance of personal interest For Parents:

Avoid imposing career choices Support autonomy in decision-making

For Institutions:

Introduce career counseling programs Provide mental health support systems

- Limitations

Despite its strengths, the study has certain limitations: Unequal group distribution (majority voluntary students) Self-reported questionnaire (subjective bias)

Cross-sectional design (cannot establish causality) Lack of standardized psychiatric scales

- Future Directions

Future studies should:

Include larger and more balanced samples

Use validated psychological scales (e.g., PHQ-9, GAD-7) Conduct longitudinal follow-up

Explore academic performance outcomes [11,12].

"The findings underscore the critical role of autonomy in career choice, suggesting that voluntary selection of MBBS is associated with better psychological outcomes, while externally influenced decisions may predispose students to emotional distress and reduced well-being."

## CONCLUSION

The present study demonstrates that autonomy in career choice plays a crucial role in determining the psychological well-being of MBBS students. Students who voluntarily chose MBBS exhibited higher motivation, greater career satisfaction, and better coping ability, whereas those who were forced or externally influenced showed higher levels of stress, burnout, and significantly greater regret. The findings highlight that although medical education is inherently stressful, lack of personal choice further exacerbates psychological distress. The presence of moderate to large effect sizes indicates that these differences are not only statistically significant but also clinically meaningful.

This study emphasizes the importance of: Encouraging self-driven career decisions, Promoting mental health awareness among medical students, Implementing structured career counseling and support systems.

## DISCLAIMER

This study is based on self-reported data collected through an online questionnaire, and therefore may be subject to response bias, recall bias, and social desirability bias. The findings reflect the perceptions of the participants at a single point in time and may not establish causal relationships due to the cross-sectional study design.

The sample, although expanded to approximately 140 participants, may not be fully representative of all MBBS students, thereby limiting the generalizability of the results. Additionally, psychological parameters were assessed using a non- standardized questionnaire, which may affect the precision and comparability of measurements.

This research was conducted solely for academic and research purposes, and the results should not be interpreted as definitive clinical or psychological diagnoses. Further studies using validated assessment tools and larger, more diverse populations are recommended to confirm and expand upon these findings.

## REFERENCES

1. Dyrbye LN, Thomas MR, Shanafelt TD. Systematic review of depression, anxiety, and other indicators of psychological distress among U.S. and Canadian medical students. Acad Med. 2006; 81: 354-373.
2. Rotenstein LS, Ramos MA, Torre M, Segal JB, Peluso MJ, Guille C, et al. Prevalence of depression, depressive symptoms, and suicidal ideation among medical students: A systematic review and meta-analysis. JAMA. 2016; 316: 2214-2236.
3. Ishak W, Nikravesh R, Lederer S, Perry R, Ogunyemi D, Bernstein C. Burnout in medical students: A systematic review.Clin Teach. 2013; 10: 242-245.

4. Deci EL, Ryan RM. Self-determination theory: A macrotheory of human motivation, development, and health. Can Psychol. 2008; 49: 182-185.

5. Dyrbye LN, West CP, Satele D. Burnout among U.S. medical students, residents, and early career physicians. Acad Med. 2014; 89: 443-451.

6. Givens JL, Tjia J. Depressed medical students' use of mental health services and barriers to use. Acad Med. 2002; 77: 918-921.

7. Henning MA, Krägeloh CU, Hawken SJ. Academic stress and resilience in medical students. Med Educ.2012; 46: 786-794.

8. Tempski P, Bellodi PL, Paro HB. What do medical students think about their quality of life? A qualitative study. BMC Med Educ. 2012; 12: 106.

9. Gupta S, Choudhury S, Das M, Mondal A, Pradhan R. Factors causing stress among students of a medical college in Kolkata, India. Educ Health. 2015; 28: 92-95.

10. Singh S, Lal A, Shekhar. Prevalence of depression among medical students of a private medical college in India. Online J Health Allied Sci. 2010; 9: 8.

11. Saravanan C, Wilks R. Medical students' experience of and reaction to stress: The role of depression and anxiety. Sci World J. 2014; 2014: 737382.

12. Yusoff MSB, Rahim AFA, Yaacob MJ. Prevalence and sources of stress among medical students in Malaysia.Med J Malaysia. 2010; 65: 207-213.