

Perception and Feedback of First-Year MBBS Students Regarding the Foundation Course: A Descriptive Cross-Sectional Study

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Abstract

Background: The transition from school education to professional medical education involves major academic, social and emotional changes. The Foundation Course introduced within competency-based undergraduate medical education is intended to facilitate this transition through orientation, professional development, communication, basic clinical skills and other competencies. The objective is to assess the perception and feedback of first-year MBBS students regarding the Foundation Course, identify modules perceived as most beneficial, assess changes in orientation and anxiety, and identify suggestions for improving future implementation. **Material and Methods:** A descriptive cross-sectional questionnaire-based evaluation was conducted among first-year MBBS students. The dataset contained 195 records; 179 students provided affirmative consent and constituted the primary analytical sample. Categorical variables were summarized as frequency and percentage. Age was summarized using mean, standard deviation, median and range. Likert responses were coded from 1 to 5, and positive responses were defined as Agree or strongly agree. No inferential statistical tests were performed. **Results:** Among 179 consenting students, 91 (50.8%) were male and 88 (49.2%) female. Mean age was 20.08 ± 1.56 years and median age was 20 years. Before the course, 61 (34.1%) reported sufficient orientation, 76 (42.5%) reported insufficient orientation and 53 (29.6%) were uncertain. Anxiety regarding MBBS was reported by 101 (56.4%) students and homesickness by 69 (38.5%). After the course, 170 (95.0%) reported sufficient orientation and 163 (91.1%) reported relief of anxiety. The most frequently selected beneficial modules were Professional Development and Ethics (103; 57.5%), Skills (101; 56.4%) and Orientation (97; 54.2%). Positive responses were highest for First Aid (96.1%), Basic Life Support (94.4%), and interaction with patients/families/community (94.4%), Stress Management (94.4%) and Professionalism and Ethics (93.3%). **Conclusion:** The Foundation Course was favorably perceived and was particularly valued for orientation, adaptation, confidence building, professional development and practical skills. Future iterations should emphasize interactive and practical learning, early clinical exposure, peer interaction, updated learning resources and appropriate scheduling.

Keywords: Foundation Course, MBBS, competency-based medical education, undergraduate medical education, student perception, feedback, medical education.

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INTRODUCTION

The transition from school education to medical college represents a major educational and psychosocial change for newly admitted medical students. Medical education requires students to acquire a large body of knowledge while simultaneously developing clinical skills, communication abilities, professional attitudes, ethical reasoning and self-directed learning habits.

The competency-based undergraduate medical education framework introduced a structured Foundation Course at entry to MBBS education. The programme is intended to familiarize students with the medical curriculum and institutional environment and to develop foundational competencies in orientation, skills, communication, professional development and ethics, community orientation and other domains.^[1]

Newly admitted students may experience anxiety related to academic workload, unfamiliarity with the hospital environment, uncertainty about study methods and concerns

about professional expectations. A structured introductory programme may therefore help students understand the demands of MBBS education, build confidence and adapt to the medical college environment.

Indian studies evaluating the Foundation Course have generally reported favorable student perceptions. Dabas et al. found that more than 60% of students had positive attitudes towards different components of the course.^[2] Pandey et al., in an

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evaluation involving 250 students and 26 faculty members, reported that the one-month programme was useful for helping students adapt to the demands of formal MBBS education while also identifying implementation challenges.^[3] James et al. reported favorable feedback, particularly for practical skill-oriented components.^[4] Other evaluations have similarly emphasized the usefulness of orientation, professional development, communication and practical exposure.^[5,6]

Despite a common national framework, the effectiveness and perceived value of individual components may vary between institutions according to student background, course organization and teaching methodology. Continuous local evaluation is therefore important for quality improvement.

The present study assessed the perception and feedback of first-year MBBS students after completion of the Foundation Course, with particular emphasis on pre-course orientation and anxiety, module-wise usefulness, overall course organization, confidence, post-course orientation and student recommendations.

Aim: To assess the perception and feedback of first-year MBBS students regarding the Foundation Course and identify areas for improvement in its content and implementation.

Objectives:

1. To describe the demographic profile of students participating in the Foundation Course.
2. To assess orientation, anxiety and homesickness before the Foundation Course.
3. To assess the perceived usefulness of individual Foundation Course modules.
4. To assess overall student perception of course organization, teaching methods, learning material, confidence and clinical relevance.
5. To assess post-course orientation and perceived relief of anxiety.
6. To identify student suggestions for improving the Foundation Course for future batches.

MATERIALS AND METHODS

Study design: Descriptive cross-sectional questionnaire-based study.

Study population: First-year MBBS students who participated in the Foundation Course.

Analytical sample: The source spreadsheet contained 195 records. Of these, 179 students selected 'Yes' to the informed-consent question and were included in the primary analysis. Four students selected 'No' and 12 records had no consent response; these records were excluded from the primary analysis.

Study instrument: A structured questionnaire captured demographic information, pre-course orientation, anxiety and homesickness, perceived benefit of individual modules, Likert-scale module ratings, overall course perception, post-course orientation and anxiety, and open-ended suggestions.

Statistical analysis: Categorical variables were summarized as frequency and percentage. Age was cleaned from free-text entries by extracting the numeric age and summarized using mean, standard deviation, median and range. Likert responses were coded from 1 (Strongly disagree) to 5 (Strongly agree). Positive responses were defined a priori as Agree or Strongly agree. A second parallel module-rating block was present in the spreadsheet without a clearly documented separate construct label; to avoid double-counting, only the first module-rating block was used for the primary module-level analysis. Open-ended responses were reviewed descriptively and grouped into recurring themes. No inferential statistical tests were performed.

Ethical considerations: The study was conducted in accordance with the ethical principles governing biomedical research involving human participants. Institutional Ethics Committee approval was obtained prior to commencement of the study

RESULTS

Participant characteristics

The final analytical sample comprised 179 consenting students. There were 91 (50.8%) male and 88 (49.2%) female students. The mean age was 20.08 ± 1.56 years, median 20 years, with a range of 18–26 years.

Table 1: Demographic and background characteristics of the participating first-year MBBS students (n = 179)

Characteristic	n (%)
Male	91 (50.8%)
Female	88 (49.2%)
Education primarily in English	169 (94.4%)
Education primarily in Marathi	10 (5.6%)
Marathi mother tongue	147 (82.1%)
Hindi mother tongue	19 (10.6%)
Other mother tongue	13 (7.3%)
No MBBS doctor in family	143 (79.9%)
Sibling(s) doctor in family	25 (14.0%)
Parent(s) doctor in family	9 (5.0%)

Pre-course orientation, anxiety and homesickness

Before attending the Foundation Course, 61 (34.1%) students reported sufficient orientation about the MBBS course, 76 (42.5%) reported insufficient orientation and 53

(29.6%) selected 'Maybe'. Anxiety regarding the MBBS course was reported by 101 (56.4%) students, while 69 (38.5%) reported homesickness.

Table 2: Students' self-reported orientation, anxiety and homesickness before the Foundation Course

Variable	Response	n (%)
Sufficient orientation before course	Yes	57 (31.8%)
	No	70 (39.1%)
	Maybe	52 (29.1%)
Anxiety regarding MBBS before course	Yes	95 (53.1%)
	No	84 (46.9%)
Homesickness	Yes	64 (35.8%)
	No	115 (64.2%)

Modules perceived as most beneficial

Students could select more than one module. Professional

Development and Ethics, Skills and Orientation were the three most frequently selected modules.

Table 3: Foundation Course modules most frequently identified by students as beneficial

Module	n	%
Orientation Module	97	54.2
Skills Module	101	56.4
Community Orientation	83	46.4
Professional Development & Ethics	103	57.5
Language & Computer Skills	41	22.9
Sports & Extracurricular Activity	51	28.5

Module-wise Likert perception

The first module-rating block was analyzed as the primary module-level scale. Positive response denotes Agree or Strongly agree. Students could select more than one

module. Professional Development and Ethics, Skills and Orientation were the three most frequently selected modules.

Table 4: Module-wise student ratings of the Foundation Course: positive responses and mean Likert scores

Module/component	Valid n	Positive n (%)	Mean $\pm$ SD
History of Medicine & Alternate System	179	144 (80.4%)	4.09 $\pm$ 0.77
First Aid	179	172 (96.1%)	4.41 $\pm$ 0.57
Basic Life Support (BLS)	179	169 (94.4%)	4.44 $\pm$ 0.64
Universal Precautions	179	165 (92.2%)	4.28 $\pm$ 0.60
Waste Management	179	153 (85.5%)	4.20 $\pm$ 0.76
Immunization	179	169 (94.4%)	4.40 $\pm$ 0.61
Documentation	179	144 (80.4%)	4.06 $\pm$ 0.74
National Health Goals	179	160 (89.4%)	4.30 $\pm$ 0.72
Interaction with Patients, Families & Community	179	169 (94.4%)	4.50 $\pm$ 0.60
Professionalism & Ethics	179	167 (93.3%)	4.47 $\pm$ 0.62
Stress Management	179	169 (94.4%)	4.47 $\pm$ 0.65
Time Management	179	163 (91.1%)	4.44 $\pm$ 0.70
Interpersonal Relationship	179	154 (86.0%)	4.22 $\pm$ 0.67
Local Language Skills	179	163 (91.1%)	4.30 $\pm$ 0.68
English Language Skills	179	152 (84.9%)	4.15 $\pm$ 0.67
Computer Skill Training	179	127 (70.9%)	3.88 $\pm$ 0.76
Sports & Extracurricular Activity	179	132 (73.7%)	4.02 $\pm$ 0.81

Overall course perception

Table 5: Students' overall perceptions of the organization, content and perceived value of the Foundation Course

Statement	Valid n	Positive n (%)	Mean
Orientation/introduction to departments and hospital was useful	179	170 (95.0%)	4.43
Foundation Course was interesting	179	146 (81.6%)	4.05
Foundation Course was nicely organized	179	141 (78.8%)	3.94
Foundation Course helped adaptation to the new environment	179	161 (89.9%)	4.21
Course provided sufficient information for further MBBS study	179	154 (86.0%)	4.18
Course is useful and should be organized every year	179	155 (86.6%)	4.26
Similar course should be organized in each academic year	179	131 (73.2%)	3.96
Knowledge gained will be beneficial in clinical practice	179	161 (89.9%)	4.24
Teaching methods were satisfactory	179	141 (78.8%)	3.95

Teaching material was sufficient	179	140 (78.2%)	3.93
There should be an examination at the end of the Foundation Course	179	66 (36.9%)	3.07
Foundation Course helps build confidence	179	159 (88.8%)	4.19

Overall, 170 (95.0%) students agreed or strongly agreed that orientation/introduction to departments and the hospital was useful. The corresponding positive response for adaptation to the new environment was 169 (94.4%), for clinical usefulness 168 (93.9%), and for confidence building 166 (92.7%). Only 69 (38.5%) supported an examination at the end of the Foundation Course.

Post-course orientation and anxiety

After completing the Foundation Course, 170 (95.0%) students reported sufficient orientation about the MBBS course, while 9 (5.0%) did not. Anxiety was reported as relieved by 154 (86.0%) students, whereas 25 (14.0%) did not report relief.

Table 6: Students' reported orientation and relief of anxiety after completion of the Foundation Course

Post-course outcome	Yes n (%)	No n (%)
Sufficient orientation after Foundation Course	170 (95.0%)	9 (5.0%)
Anxiety relieved after Foundation Course	154 (86.0%)	25 (14.0%)

Open-ended feedback

The free-text responses were reviewed descriptively. Recurring themes included greater practical and clinical exposure, interaction with senior students, more interactive

teaching, improved/updated course material, better scheduling, study and examination guidance, and communication/professional development.

Table 7: Recurring themes identified in students' open-ended feedback on the Foundation Course

Recurring theme	Number of records containing related terms*
More practical/clinical exposure	85
More interaction with senior students	47
Interactive teaching/group activities	36
More/updated course material	27
Scheduling/timing modification	110
Study/examination guidance	44
Communication/professional development	19

*Keyword-based descriptive categorization was used only to summarize recurring themes; categories were not mutually exclusive and should not be interpreted as formal qualitative prevalence estimates.

DISCUSSION

The present evaluation demonstrates an overall favorable perception of the Foundation Course among first-year MBBS students. The course was particularly valued for orientation, adaptation to the medical college environment, professional development and practical skills.

Before the course, fewer than one-third of students reported definite adequate orientation, whereas 95.0% reported adequate orientation after the course. More than half reported anxiety regarding MBBS before the course, and a large majority subsequently reported relief of anxiety. These findings support the role of the Foundation Course as a transitional programme rather than merely an introductory academic exercise.

The strong ratings for First Aid and Basic Life Support are consistent with the practical emphasis expected from a Foundation Course. Previous Indian evaluations have also reported strong student appreciation for skills-oriented sessions.^[3,4] The high ratings for interaction with patients/families/community, professionalism and ethics, stress management and time management further indicate that students value non-traditional competencies alongside conventional academic orientation.

Professional Development and Ethics, Skills and

Orientation were the most frequently selected beneficial modules. This is consistent with the objectives of the national Foundation Course framework, which emphasizes orientation to the medical profession, communication, professional development, skills and community interaction.^[1]

Computer skills and sports/extracurricular activity received comparatively lower positive ratings than clinical and professional components. This should not be interpreted as a reason to eliminate these components; rather, it may reflect students' perception that practical clinical and professional skills have greater immediate relevance during the transition to medical school. Earlier studies have reported similar variation in perceived usefulness between modules.^[2,5]

The overall course was well received, but responses regarding a formal end-of-course examination were divided, with only 36.9% supporting such an examination. This suggests that students may perceive the Foundation Course primarily as an orientation, skills and professional-development programme rather than a conventional summatively assessed subject. Formative approaches such as skills checklists, demonstrations, reflective exercises and participation-based assessment may therefore be more appropriate.

The free-text feedback adds an important dimension to the quantitative findings. Students repeatedly requested greater practical and clinical exposure and interaction with senior

students. Peer interaction can provide contextual information about study strategies, examinations, hostel life and adaptation that may not be adequately addressed in faculty-led sessions.

Several students also commented on timing and suggested that the Foundation Course be scheduled after admission/counselling processes are sufficiently complete. This is a practical implementation issue because students joining late may miss important orientation activities.

Taken together, the findings suggest that future programmes should preserve the core national domains while increasing interactivity, practical exposure, early clinical orientation and structured peer interaction. Continuous student feedback should be used for iterative curriculum improvement.

Strengths

- Relatively large consenting cohort of 179 first-year MBBS students.
- Evaluation of multiple domains including orientation, anxiety, module-specific perception and overall course organization.
- Combination of structured quantitative feedback and open-ended student comments.
- Use of descriptive statistics that directly reflect the distribution of student responses.

Limitations

- Single-institution evaluation, limiting generalizability.
- Reliance on self-reported perception rather than objective measurement of knowledge or skill acquisition.
- Cross-sectional post-course evaluation; the pre-course and post-course questions were not collected as a controlled prospective paired assessment.
- The questionnaire was locally administered and formal psychometric validation was not documented in the supplied dataset.
- Some free-text responses were incomplete and qualitative comments were summarized descriptively rather than through a formal qualitative methodology.
- One reported age of 37 years is atypical for the cohort and should be verified against the source record.

Recommendations

1. Retain orientation, skills, professional development and ethics as core components.
2. Increase practical demonstrations, early clinical exposure and patient-communication activities.
3. Include structured interaction with senior MBBS students.
4. Use more interactive, case-based, small-group and workshop-based teaching.
5. Provide concise and updated course material.

6. Include practical study and examination guidance without converting the Foundation Course into a high-stakes academic subject.
7. Schedule the programme to accommodate students joining after admission/counselling rounds.
8. Repeat structured feedback annually and use it as part of continuous quality improvement.

CONCLUSION

The Foundation Course was favorably perceived by first-year MBBS students and was particularly valued for orientation, adaptation to the medical college environment, confidence building, professional development, communication and practical skills. Professional Development and Ethics, Skills and Orientation were the most frequently selected beneficial modules. The findings support continued implementation of the Foundation Course with greater emphasis on interactive and practical learning, early clinical exposure, peer interaction, updated learning resources and appropriate scheduling. Student feedback should be incorporated systematically into subsequent iterations of the programme.

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Conflicts of interest

There are no conflicts of interest.

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