

Assessment of newly introduced foundation course for medical undergraduates: students' vs faculty's perspective

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ABSTRACT

Background and Objectives: In compliance with MCI's recommendation, a month-long Foundation Course was conducted in our institution in Aug'19. The present study was conducted to seek the opinion of the students and faculty regarding relevance of the topics included in the course to enable revisions to be made in designing the course for the subsequent sessions, to make it more effective and student-oriented. **Methods:** A questionnaire-based cross-sectional study was conducted to seek the opinion of 100 students who underwent the Foundation Course and 35 faculty members who were involved in teaching the topics allotted. **Results:** Positive feedback was recorded from 63% of the students and 69% of the faculty regarding the overall experience of the course. Among the different modules, Skills module was voted as relevant by majority (73%) of students, whereas a module on Enhancement of Language and Computer Skills was found relevant to the course by a mere 52% students. In contrast, module on Sports and Extracurricular activities was adjudged as most relevant while as module on Enhancement of Language and Computer Skills got the least positive feedback (81.43% vs. 60.36%, respectively) from the faculty. **Interpretation and Conclusions:** Foundation Course recommended by MCI for MBBS students at the entry level is a welcome step. This can further be made more beneficial by making necessary modifications in the planning of the course in light of suggestions received from the participants.

Keywords: Cross-sectional study, feedback, foundation course, questionnaire

Introduction

Academic institutions across the world plan orientation programs for their students as they transit from high school to undergraduate course with the main aim of familiarizing them with the campus environment and academic programs, and thereby facilitating their adjustment to the same.^[1]

As far as India is concerned, conducting Orientation program for medical undergraduates at the time of entry into the course

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has gained momentum over the past few years. Many medical colleges in India are running orientation programs of varying durations for new MBBS entrants.

Medical students in India come from diverse backgrounds in terms of geography, culture, language, economy, social construct, medium of instruction, and education boards. They enter a new environment in medical college directly from school which can be challenging. To facilitate their transition from school phase to a professional course, a need for orientation program has been perceived by medical educationists all over the country. Objective being to sensitize the fresh medical students with the required knowledge and skills that will assist them in acclimatizing to

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the new professional environment which would be their milieu for a life-long career in the medical profession and to provide a sound foundation for learning in the MBBS course and later in their professional career.^[2]

In compliance with MCI's recommendation, one month-long foundation course was conducted from Aug 1, 2019 to Aug 31, 2019 at the MBBS entry level for 100 students enrolled in our institution for the session 2019-2020.

Although 1 day Orientation Program for students enrolled in the first year MBBS course used to be a routine annual event, but it was for the first time that a month-long foundation course was carried out as per MCI's recommendations. Since it was up to the individual institutions to design and implement their foundation course, obtaining feedback from both the students and the faculty involved seemed necessary as the feedback, thus obtained, would enable revisions to be made to bring about improvement in course designing and planning for the subsequent batches, thereby making the foundation course more beneficial for them.

Material and Methods

A questionnaire-based, cross-sectional study was carried out among MBBS students and medical faculty in our institution.

Eligibility criteria: All newly enrolled first year MBBS students (batch 2019 - 2020) who underwent the foundation course and medical faculty involved in teaching the same were included.

Exclusion criteria: Participants from whom feedback could not be obtained despite 2 reminders were excluded.

Tool: A predesigned semi-structured questionnaire comprising of:

- Instructions for filling the questionnaire;
- a close-ended question on the overall experience of the course (to be rated on a three-point Likert Scale),
- close-ended questions seeking their opinion about the relevance of individual modules and the topics included in the modules (to be rated on a three-point Likert scale).-
- open-ended questions seeking their opinion about the course and suggestions for improvement.

Modules covered in the foundation course were:

1. Orientation module
2. Skills module
3. Community Orientation module
4. Module on professional development and ethics
5. Module on enhancement of language and computer skills
6. Module on sports and extracurricular activities.

Likert-type scales use fixed choice response formats and are designed to measure attitudes or opinions. They help in rating the level of agreement/disagreement for a given item or statement.

Data Collection: The study was conducted in October 2019 after obtaining the requisite approval from the Institutional Ethics Committee. The questionnaire was used to gather feedback from the study participants. A 10-min briefing was given regarding the purpose of the study and on how to fill in the questionnaire. Sufficient time was given to fill the same. Doubts regarding the questions were clarified.

To enable the participants to give their responses frankly and honestly, they were instructed to fill in the questionnaire anonymously.

The data, thus obtained, were analyzed using MS Excel 2007.

Results

Feedback response was obtained from all the 100 students who underwent the foundation course (i.e. response rate of 100%) and from the faculty (35 in number out of 37) who taught the topics (i.e. response rate of 94.59%).

The first part of the questionnaire sought their opinion as to the overall experience of the course. Among students, majority ($n = 63$; 63%) responded positively compared to 15% ($n = 15$) who gave a negative response; while as, among the 35 respondents in the faculty group, majority ($n = 24$; 68.57%) ended giving a positive feedback, whereas 14.29% ($n = 5$) responded negatively [Table 1].

The second part of the questionnaire sought their opinion regarding relevance of the individual modules and sessions conducted.

Analysis of students' response revealed that skills module was perceived as the most relevant module in the course with 73% ($n = 73$) students being in its favor, followed by sports and extracurricular activities to which 69% gave a positive response. Both orientation module and module on professional development and ethics were found relevant by 64%. Least relevant modules, in their opinion, were community orientation and enhancement of language and computer skills with mere 58% and 52% respondents ($n = 58$ and 52), respectively, giving a favorable response [Table 2].

However, there were varying responses in feedback received regarding different topics covered within the modules. Within the modules, sessions on basic life support and resuscitation skills, significance of working in a healthcare team, understanding the importance of compassion, altruism, integrity, duty, responsibility and trust in physician's work, and biomedical waste management were found to be relevant by over 3/4th of the students.

Sessions on basic computer skills, accessing online resources, understanding national health goals and policies, history of medicine, introduction to AETCOM, role of yoga and meditation in personal health and National Health scenario, demographic,

socio-cultural and epidemiological issues were among those perceived as least relevant by the students with less than half of them finding them relevant at this stage.

Visits to CHC and NGO were especially appreciated by the students. They particularly liked practical sessions like BLS/CPR, handwashing, and sessions on time management and stress management.

As far as the faculty's opinion regarding individual modules is concerned, 81.43% gave a favorable response to inclusion of sports and extracurricular activities in the foundation course, 75.87% opined in favor of skills module, 69.14% thought that orientation module and almost same proportion (69.08%) found professional development and ethics module relevant to the course. As per the faculty, the least relevant modules were community orientation and enhancement of language and computer skills with 65% and 60.36% faculty, respectively, finding these modules relevant for their inclusion in the foundation course [Table 3].

On the basis of the faculty's response, within the modules, sessions on understanding the concept of professionalism

and ethics among healthcare professionals, understanding the importance of compassion, altruism, integrity, duty, responsibility and trust in physician's work, first aid, barriers to communication, basic life support and resuscitation skills, biosafety and universal precautions, handling and safe disposal of biohazardous material, proper hand washing, and use of personal protective equipment and biomedical waste management were found to be the most relevant ones with more than 3/4th of the faculty giving a favorable response. On the other hand, among those perceived as least relevant were sessions on disability competencies and local languages getting a favorable response from less than 55% of the faculty.

Figure 1 depicts the comparison between students' and faculty's perception about relevance of different modules, with each module getting a more favorable response from faculty compared to that from students. Going by the order of relevance of the different modules as revealed on analysis of responses obtained from the two groups, it was found that majority of the students opined "Skills module" to be the most relevant one. On the contrary, "Module on sports and extracurricular activities" was found to be most relevant in faculty's opinion, showing the difference in perception of the two groups. However, opinions of the two groups matched when analysis revealed "Module on enhancement of language and computer skills" to be the one getting the least favorable response in both the groups.

Analyzing responses to the open ended questions revealed that foundation course was welcomed by almost all the students and faculty except for a few. Further, when suggestions were sought for modifications required to be made in designing and

Table 1: Grading of overall experience of foundation course by students and faculty

	Overall experience n (%)				Total response
	Positive	Neutral	Negative	No	
Students	63 (63.00)	20 (20.00)	15 (15.00)	2 (2.00)	100 (100)
Faculty	24 (68.57)	6 (17.14)	5 (14.29)	0 (0.00)	35 (100)

Table 2: Relevance scores for different modules as perceived by students

Module	No. of topics in the module	No. of responses*	Response n (%)			
			Nil	Not Relevant	Neutral	Relevant
ORIENTATION	10	1000	14 (1.40)	114 (11.40)	235 (23.50)	637 (63.70)
SKILLS	9	900	10 (1.11)	109 (12.11)	125 (13.89)	656 (72.89)
COMMUNITY ORIENTATION	4	400	1 (0.25)	62 (15.50)	106 (26.50)	231 (57.75)
PROFESSIONAL DEVELOPMENT & ETHICS	17	1700	30 (1.76)	229 (13.47)	367 (21.59)	1074 (63.18)
ENHANCEMENT OF LANGUAGE & COMPUTER SKILLS	8	800	31 (3.87)	181 (22.62)	169 (21.13)	419 (52.38)
SPORTS & EXTRA-CURRICULAR ACTIVITIES	2	200	4 (2.00)	35 (17.50)	23 (11.50)	138 (69.00)

*No. of responses=Number of topics in the module × Number of participants

Table 3: Relevance scores for different modules as perceived by faculty

Module	No. of topics in the module	No. of responses [†]	Response n (%)			
			Nil	Not Relevant	Neutral	Relevant
ORIENTATION	10	350	1 (0.29)	49 (14.00)	58 (16.57)	242 (69.14)
SKILLS	9	315	3 (0.95)	42 (13.33)	31 (9.84)	239 (75.87)
COMMUNITY ORIENTATION	4	140	1 (0.71)	21 (15.00)	27 (19.29)	91 (65.00)
PROFESSIONAL DEVELOPMENT & ETHICS	17	595	3 (0.50)	74 (12.44)	107 (17.98)	411 (69.08)
ENHANCEMENT OF LANGUAGE & COMPUTER SKILLS	8	280	5 (1.79)	43 (15.36)	63 (22.50)	169 (60.36)
SPORTS & EXTRA-CURRICULAR ACTIVITIES	2	70	0 (0.00)	6 (8.57)	7 (10.00)	57 (81.43)

[†]No. of responses=Number of topics in the module × Number of participants

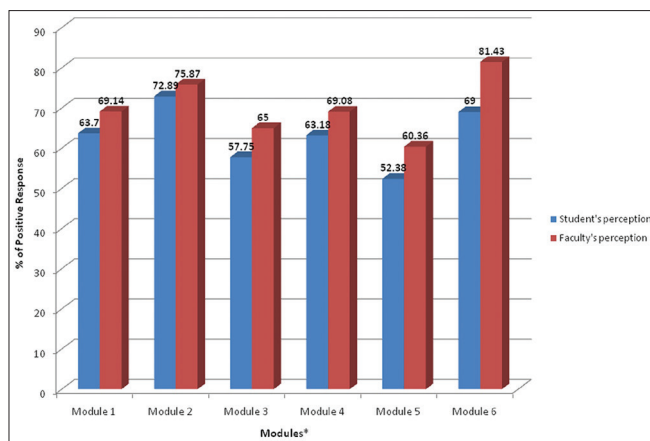


Figure 1: Multiple Bar Diagram showing Students' vs Faculty's perception regarding relevance of different modules in Foundation Course * Module 1 = Orientation Module; Module 2 = Skills module; Module 3 = Community Orientation Module; Module 4 = Module on Professional Development and Ethics; Module 5 = Module on Enhancement of Language and Computer Skills; Module 6= Module on Sports and Extracurricular activities.

implementing the foundation course, the points that emerged from among the students were:

- To shorten the duration of lectures and increase the sessions on practical teaching inwards.
- To shorten the overall duration of course.
- No repetitive lectures on similar topics.
- Include sessions on:
 - Learning of vital signs of patients in the Foundation course
 - Studying strategy and exam. preparation strategy for students
 - Teaching commonly used medical terminologies like HTn, T₂DM
 - Teaching how to measure BP, setting up I/V line, catheterization, administering injections.
 - Introduction to equipment used in the medical field.
 - How to balance between study and hobbies.

Just like students, faculty were also of the view

- To shorten the duration of lectures.
- To shorten the overall duration of course.
- Reduce repetition of topics.

Some other suggestions that emerged on analysis of responses from the faculty were:

- Stress management sessions to be carried out periodically (just before every Prof exam.)
- Some topics were not relevant to be taught at this stage and should be postponed to the start of 2nd prof.
- Include more sessions on Mental Health.

Discussion

In accordance to MCI's Medical Education Program of 2019,^[2] a month-long foundation course was designed and implemented in our institution for the newly enrolled MBBS batch (2019 - 2020). The present study was carried out to seek the opinion of the students and faculty involved regarding their overall experience of the foundation course, relevance of the course content, and suggestions for further improvement.

Literature search yielded a few published papers on the subject. In India, these studies were carried out by the individual medical colleges to evaluate their foundation courses/orientation programs of varying durations and course contents as there were no clear cut guidelines by MCI earlier and moreover, it was not mandatory as well.

All these studies were done to evaluate the orientation program from students' perspective alone;^[3-11] except for one which sought faculty's perspective as well.^[12] As far as the course content is concerned, barring three recent studies which evaluated 1 month-long MCI recommended foundation course,^[3-5] the rest were comparable to some extent only, as the foundation courses evaluated in those studies were not as exhaustive and comprehensive as ours.

In the present study, a positive feedback regarding overall experience of the course was recorded from 63%, neutral response from 20% and negative feedback from 15% of the students. Somewhat similar result was obtained by Khilnani AK *et al.* in their study seeking feedback from students regarding their overall experience of a month long foundation course, where 22.3% and 41.9% students rated their overall experience as excellent and very good, respectively, 33.8% rated it as good, whereas the rest gave an unfavorable response.^[3] In a similar study from Ahmedabad, Gujarat, 88.4% students gave a favorable response for the foundation course.^[4] While as, in another such study conducted by Dixit R *et al.*, seeking the perception of students regarding 1 month-long foundation course on a 5 point Likert scale, an overall rating of 4.19 was obtained, indicating their high level of satisfaction with the course.^[5] As far as other studies evaluating foundation courses of variable durations is concerned, a before-after study conducted in Nepal reported the overall program to have been perceived as effective by the students.^[6] Evaluation of feedback of a two-day Foundation Program for MBBS 2nd Professional students revealed that 67% participants labeled the foundation program as a very good exercise.^[7] A study from Pakistan stated that Students agreed regarding their better orientation towards what they would be taught during their 5 year MBBS course.^[8] Results obtained from a study conducted in Gujarat revealed that 78% students responded positively for orientation, and 88% responded positively for foundation course and that students were largely satisfied with the program.^[9] In a study conducted in a medical college in

Kerala, 40% students opined the overall orientation program to be excellent, 50% rated it as very good, 7% as good and 3% satisfactory.^[10] Thus, results obtained from all these studies indicate that, more or less, such foundation courses are taken positively by the students.

As far as the course content is concerned, in the study conducted in Kerala, most of the students reported many benefit from topics related to team work, spirituality and ethics, while least benefit was shown from topics on time management, leadership skills and basic life support and first aid.^[10] In contrast, in the present study, students particularly liked practical sessions like Basic life support and resuscitation skills, handwashing, and sessions on time management and stress management, whereas sessions on basic computer skills, accessing online resources, understanding national health goals and policies, history of medicine, introduction to AETCOM were perceived as the least relevant ones. Similar results were obtained by Khilnani AK *et al.* with CPR and basic life support training having been adjudged as the most important topic by the students, computer skills, and language were adjudged as the least important ones.^[3] Whereas, in the study by Dixit R *et al.*, first aid techniques were reported to have secured the highest score of 4.5 and sessions on computer skills, reflective writing, interaction and learning from mentor, and various teaching-learning methods got the lowest score of 3.8 each on a 5 point Likert Scale.^[5] Further, study from Gujarat observed that students appreciated topics dealing with skill development namely communication skills, learning skills, first aid, cardiopulmonary resuscitation, and english proficiency.^[11]

Module-wise analysis of students' feedback revealed that, in the present study, skills module was the most appreciated one, while as module on enhancement of language and computer skills got the least favorable response. These findings were in tune with the study conducted in Ahmedabad, Gujarat in which skills module, with a score of 4.3, was perceived as most favorable by the students; while as, module on professional development, including ethics and module on communication and language skills got a relatively less favorable response (score of 4.0 and 3.9, respectively).^[4] On the contrary, Dixit R *et al.* reported language and computer skills module to have scored 4.04 with skills module getting the lowest score of 3.43.^[5]

In addition to the students' perspective, Faculty's perspective was also taken into consideration in a study conducted in Bathinda, Punjab to recommend a revised program. Major student suggestions were to include topics such as communication skills, inter-personal relationship skills, and have more group activities and include other teaching methodologies. Major patterns that emerged from focus group discussion with faculty were to include topics such as social etiquette, interpersonal relationships, communication skills, biomedical waste management, and overview of the whole MBBS curriculum.^[12] The suggested topics have already been covered in the foundation course evaluated in the present study.

Key Points

- The foundation course has largely been perceived in a positive way by both the students as well as the faculty, with some difference in opinion concerning relevance of certain topics.
- Compared to the theoretical sessions, practical sessions involving teaching of skills were appreciated more by the students.
- Skills module and module on sports and extra-curricular activities were perceived as most relevant, while as module on enhancement of language and computer skills was perceived as least relevant by both the students as well as the faculty.

Conclusion

With majority of students and faculty giving a positive feedback, it can be concluded that the foundation course recommended by MCI for MBBS students at the entry level is a welcome step. This can further be made more beneficial by making necessary modifications in the planning of the course in light of suggestions received from the participants.

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Conflicts of interest

There are no conflicts of interest.

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