

# A study on perception of medical students regarding implementation of elective module in India

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**Abstract:** As suggested by the National Medical Commission (NMC) of India recently, the elective module was implemented in our medical college for MBBS admission batch 2019. Since, this was the first of its kind implementation in our institute and across the country, we planned this study to know the perception of medical students regarding the implementation of elective module. We conducted a cross-sectional survey among MBBS students of 2019 batch. A pre-validated questionnaire was prepared by the Medical Education Unit (MEU) members of our institute using online Google form and was circulated to all via WhatsApp group and email. A total of 63 responses from medical students were included for data analysis. Majority students said that objectives of the elective module were largely met and the faculty members were very helpful and responsive, and that they actively participated in the electives. Majority of them agreed that it was a very good academic activity, the time duration was appropriate, and it provided an opportunity to show creativity and for teamwork. Most students rated the overall experience of electives as "good" and above, however they were worried about getting faculty signatures in the logbooks.

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## 1. Introduction

The concept of electives antedates to as early as 1819 when it was first introduced by Virginia University in the United States of America (Howard, 1918). An elective or 'optional' course is generally a short duration course, which is not mandatory, and in which the student has the opportunity to 'elect' (select) depending on his/ her personal interest from various available options of courses.

Elective courses are a part of medical curriculum in many universities worldwide (Mahajan & Singh, 2021). Many recent studies have discussed the role of elective courses in undergraduate education (Lumb & Murdoch-Eaton, 2014; Kusurkar & Croiset, 2014; Suzuki & Nishigori 2018; Daccache et al., 2020, Willott et al., 2019, Cherniak et al., 2013). Many studies have reported the benefits of electives like increased knowledge and skills, enhanced critical thinking and problem-solving skills, Improved communication and teamwork skills, increased self-confidence and motivation, a more well-rounded education, opportunity for exploratory learning, lateral thinking, immersive learning, and development of spirit of enquiry (Khilnani & Thaddanee, 2022; Ramalho et al. 2020, Al-Taher 2022; Stys et al., 2013, Stone at al., 2022; Bath et al., 2020, Storz, 2022). Also, electives affect the future choices of students regarding their clinical practice (Alkhaneen et al., 2018; Zuckerman et al., 2016; Dada et al, 2022; Rudasill et al, 2022; Alghamdi et al, 2022; Anand

& Sankaran, 2019). Nowadays, medical students also prefer international electives (Hasebe et al., 2022; Storz et al., 2021).

Hence, the Board of Governors in Super-Session of Medical Council of India, via a gazette notification, officially introduced electives as a part of under graduate medical curriculum in India, starting from MBBS admission batch 2019 and to implemented at the end of their third year-part one (Regulations on Graduate Medical Education (Amendment), 2019). Also, an elective module was released by the NMC to guide medical institutions across India for their smooth implementation (Medical Council of India, 2020).

Since, the MBBS admission batch 2019 completed their third-year part one in February 2023, the elective module was implemented in March-April 2023 by our medical college as per the NMC guidelines (Medical Council of India, 2020). Since, this was the first of its kind implementation of elective module in our institute and across the country, and we could not find any published article regarding students’ perception of elective module in India, we planned this study to know the perception of medical students regarding the implementation of elective module. The results of our study will help in introducing suitable modifications and improving the elective modules for future MBBS students in India.

### 2. Materials and Methods

We conducted a cross-sectional survey among MBBS students of 2019 batch who participated in the implementation of elective module at our institute. The study was pre-approved by the ethics committee of our institute and was conducted as per the ethical guidelines for internet-mediated research (Ethics guidelines for internet-mediated research, 2021) and the declaration of Helsinki (The Declaration of Helsinki, 2008). An informed consent for participation was obtained for this completely anonymized, non-experimental study.

To know the perception on implementation of elective module, a pre-validated questionnaire was prepared by the Medical Education Unit (MEU) members of our institute. The questionnaire was prepared using online Google form and the link was circulated to all participants via WhatsApp group and email. A total of 72 medical students of 2019 Batch responded to the questionnaire. Those who did not give a valid consent to participate (4 students) and who submitted incomplete responses (5 students) were excluded from the study. Thus, 63 responses from medical students were included for data analysis.

For data entry and statistical analysis, we used Microsoft Excel 2013® , and SPSS® (Statistical Package for Social Sciences) for Windows Inc. Version 21. Proportions were expressed as percentages while qualitative data were analyzed using thematic analysis.

### 3. Results

Majority of the students (79%) responded that objectives of the elective module were largely met. Most (97%) of the students said that the faculty members were helpful and responsive to their learning needs and that students actively participated (100%) in the electives (Table 1).

**Table 1.** Students’ response to questions on electives

Question	Yes	No	Maybe	Cannot Say
	N (%)			
Do you think that the Objectives of the electives were largely achieved?	50 (79)	1 (2)	11 (17)	1 (2)
Were the faculty members helpful and responsive to your learning needs?	61 (97)	0	1 (2)	1 (2)
Did you actively participate in electives? If not, then what made you to participate less?	63 (100)	0 (0)	0 (0)	0 (0)

Majority of the students agreed that it was a very good academic activity (57%), the time duration was appropriate (49%), it provided an opportunity to show creativity and lateral thinking (52%), and it provided an opportunity for teamwork (48%). Most of the students rated the overall experience of electives as good (48%), very good (21%) or excellent (21%) (Table 2). Students gained a new perspective about the preclinical subjects but they were troubled of getting faculty signatures in the logbooks (Table 3).

**Table 2.** Perception of students about electives

Perception	N (%)				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
It was a <b>very good</b> academic activity	20 (32)	36 (57)	6 (10)	1 (2)	0 (0)
The <b>time duration</b> was appropriate	10 (16)	31 (49)	15 (24)	5 (8)	2 (3)
It provided an opportunity to show <b>creativity</b> and lateral thinking	20 (32)	33 (52)	9 (14)	1 (2)	0 (0)
It provided an opportunity for <b>teamwork</b>	28 (44)	30 (48)	4 (6)	1 (2)	0 (0)
	Excellent	Very good	Good	Poor	Very Poor
How was your <b>Overall experience</b> about electives?	13 (21)	13 (21)	30 (48)	2 (3)	5 (8)

**Table 3.** Few salient perceptions of students about electives in their own words

Salient perceptions
"Got the chance to reflect back to preclinical subjects by a different perspective than just to pass the exams."
"Electives gave us the chance to gain new skills like intubation and laryngoscopy, which kept us interested in electives."
"Students get tired of going each and every department for signature on logbook, Not a single department is cooperative even though students have 100% attendance."
"Only one subject was clinically oriented which is great disadvantage, and we don't get clinical exposure of other subjects."

Students mentioned that electives gave them a good chance to gain clinical knowledge (25%), to develop clinical skills (24%), to gain new knowledge (19%), to develop new skills (19%), a greater exposure to patients (16%). Also, they mentioned the helpful nature of faculty members (13%) as one of the strengths of the program (Table 4).

**Table 4.** Strong points of the program as described by students (Thematic analysis)

Strong points	Count	%
A good chance to gain clinical knowledge	16	25
A good chance to develop clinical skills	15	24
Opportunity to gain new knowledge	12	19
Opportunity to develop new skills	12	19
Provides greater exposure to patients	10	16
Helpful nature of faculty members	8	13
Opportunity to work and learn at department of interest	7	11
Opportunity to develop interest in a subject	7	11
Opportunity to learn fundamental aspects of subjects	5	8
Opportunity to develop deeper understanding of a subject	4	6
Opportunity to interact and learn alongside faculty	3	5
Opportunity to work in a healthcare team	3	5
Useful for future practice	2	3
Helps in building confidence	2	3
Helps in building time management skill	2	3
Appropriate objectives	1	2
Teaching-learning activities	1	2
Fun and informative	1	2
Refreshing experience apart from regular academics	1	2
Not worth it	1	2

Most of the students (52%) said that there were no weaknesses in the program implementation. However, a significant number of students (32%) said that it was not as expected due to the busy schedules of the faculty members (Table 5). Also, students gave some important suggestions regarding the program (Table 6).

**Table 5.** Weak points of the program as described by students (Thematic analysis)

Weak points	Count	%
No weak points	33	52
Not as expected due to busy schedule of professors	20	32
Lack of diversity in patients	6	10
Less time duration	4	6
Improper implementation	3	5
It should be more practical oriented and it must be available in respective departments	2	3
Unexpected starting	2	3
In pharmacovigilance we didn't get enough ADR forms	1	2

**Table 6.** Important suggestions mentioned by students in their own words

Suggestions
"This is the <b>best decision</b> NMC made"
"All the <b>logbook signatures</b> should be given on time to students as soon as possible so students don't suffer."
"Elective selection should be <b>online</b> instead of offline."
"Subjects like <b>emergency medicine and trauma management</b> should have been included"
"Add other subjects like <b>emergency medicine</b> "
" <b>Topic wise allotment</b> could be better rather than department wise allotment to work in particular one topic solely."
"Participation should be <b>voluntary</b> "

#### 4. Discussion

As suggested by the National Medical Commission (NMC) of India ([Medical Council of India, 2020](#)) the elective module was implemented in our medical college for MBBS students of batch 2019. Since, this was the first of its kind implementation in our institute and across the country, we planned this cross-sectional survey to study the perception of medical students regarding implementation of this elective module at our medical college.

All the students said that they actively participated in the electives module. Majority students said that the faculty members were very helpful and responsive to their learning needs. Also, they said that objectives of the module were met. Similar findings were reported by previous studies ([Couper, 2015](#); [Ahsin & Saeed, 2016](#)).

Students perception was very optimistic regarding the electives module. Most of the students rated the overall experience of electives as 'good' or above. Students agreed that it was a very good academic activity with appropriate time duration. Also, it provided them with an opportunity to show their creativity and lateral thinking, and to work as a member of healthcare team. They gained a new perspective about the preclinical subjects. However, students seemed to be troubled by the fact that they had to get faculty signatures in the logbooks from all the elective departments. Similar results were reported by many previous studies ([Agarwal, 2015](#); [Wu & Greenberg, 2016](#); [van den Broek, 2017](#); [Ramalho et al., 2020](#); [Harvey et al., 2020](#)).

Regarding the strengths of the program, students mentioned that electives gave them an opportunity to gain clinical knowledge, to develop clinical skills, and direct exposure to patients. Also they mentioned the helpful nature of faculty members and interaction with them as a strength of the program. Regarding weaknesses of the program, most students responded that there were none. However, some said that it was not as expected due to the busy schedules of the faculty members. Past studies reported similar findings ([Neel et al. 2018](#); [Drum et al., 2021](#)).

Also, students gave some important suggestions regarding the program like "All the logbook signatures should be given on time to students as soon as possible so students don't suffer.", "Elective selection should be online instead of offline." and "Subjects like emergency medicine and trauma management should have been included." All such suggestions will help in improving the future implementation of the elective module.

#### 5. Conclusions

Electives are an important part of undergraduate medical curriculum. Implementation of elective module at our institute was largely successful and students had a good overall experience. Hence, it should be further promoted and more topics should be included in electives to provide a wider range of selection. It is imperative that students should be provided direct patient exposure during electives whenever possible. Similar

research is warranted on a larger student population throughout the country. Also, perceptions of faculty members should also be taken into consideration while designing and implementing elective modules.

**Limitations of the study:** We could survey a relatively smaller number of students. Similar study conducted on larger student sample can give more detailed and reliable insights about students' perception of electives. Also, we did not study the perception of faculty members involved in the program which could have given useful information on their perception and overall improvement of the electives module. Hence, similar research is warranted on a larger student population and on faculty members.

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