Navigating electives: Perspectives from phase III MBBS students and faculty in program evaluation

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ABSTRACT

Background: An elective is a learning experience created in the competency-based medical education curriculum to provide an opportunity for the learner to explore, discover, and experience areas or streams of interest in the profession. To implement a program successfully, we need to continuously evaluate the program and make necessary revisions based on feedback, outcomes, and challenges faced. **Aims and Objectives:** To assess perceptions and challenges faced by students and teaching faculty to provide insights about the best approach to implement electives. **Materials and Methods:** A cross-sectional survey in which qualitative data on perceptions of electives were collected through an online survey by a validated semi-structured questionnaire with open-ended questions. Analyzed using a 5-point Likert scale. **Results:** Out of 240 students and 55 preceptors/teaching faculty, most students strongly agreed they could select an elective topic of their interest (96%) and found elective topics highly engaging and relevant to their interests and career goals (42.1%). About 12% of students agreed that topics were assigned to them without their input, and 50% felt topics should have been more innovative. The majority of the students were assessed during the course (84%). The majority of teaching faculty (90%) highly valued the introduction of an elective module and the need for more innovative topics, and 36% agreed that logbook entries, documentation, and evaluation were not completed due to time constraints. Thematic Analysis of Focus Group Discussion with students and teaching faculty revealed many perspectives in their own words. **Conclusion:** The elective curriculum received positive feedback from participants suggestive of including super-specialty topics, collaborating with external institutions, increasing resource faculty, using electronic logbooks and e-assessments to ease the workload, and finally conducting pre-departure orientations for clarity. Strategic policy changes are essential for better curriculum design and implementation.

Key words: Elective; Competency-based medical education; Perception; Challenges and improvements

INTRODUCTION

Electives are offered to students to allow them to have diversified and specific learning experiences in the area of interest beyond fixed curricular boundaries. To implement successfully, we need to continuously evaluate the effectiveness of the elective program and make necessary revisions based on feedback, outcomes, and challenges faced during implementation, as it begins in the medical journey.

Literature review, basic science, and clinical syllabus remain the strongest foundations of the medical curriculum.

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Nevertheless, electives emerge as a complement to this core curriculum as they provide students with the opportunity to customize their studies by selecting, directing, and organizing the curriculum that best meets their individual needs and/or interests.[1,2] The opportunity to choose to do a research elective, an international or "away from home institution" elective, or an elective that provides the opportunity to follow courses that are not a part of the routine syllabus introduces "autonomy-support" in the curriculum. Autonomy support or providing choices to students in their learning is an important pillar for stimulating autonomous motivation.[3] It was the first of its kind implementation of elective modules in our institute and across the country. There is an inherent tension among students who frequently will not be able to decide for themselves where they go and how they spend their electives. For many, electives are about discovering a new culture, health system, and disease burden, but for others, it can comprise a "treat" at the end of a difficult summative assessment.[4] Hence, this study was very much essential to evaluate the program for the purpose of monitoring and improving the quality and effectiveness of the program by systematic collection and analysis of information related to the design, implementation, and outcomes of a program using the Logic Model.

Aims and objectives

To assess perceptions and challenges faced by students and teaching faculty to provide insights about the best approach in implementing electives.

MATERIALS AND METHODS

Target population

Phase III medical students of competency-based medical education curriculum and teaching faculty/preceptors of our college.

Sample size and duration

All the students of the 2023 and 2024 batch were included in the study, and there was no selection bias. However, 10 students did not take the survey. Hence, a total of 240 students and 55 teaching faculty of two batches were included in the survey.

Study design/methods used

We conducted a questionnaire-based cross-sectional study for an educational evaluation using the Logic model in which qualitative data on perceptions of electives were collected. Approval and clearance were taken from the institutional ethical committee, and semi-structured questions and open-ended questions were formed based on focused group discussions with teaching faculty and

students. A pilot study was conducted and validated. The responses were collected through Google Forms and analyzed using a 5-point Likert scale. We organized separate contact sessions for the students in a classroom setting and administered the questionnaire. Before the survey, we briefed the participants about the purpose of the study and clarified any queries. Responses were analyzed using 5-point Likert scale questions.

RESULTS

Most of the students agreed that they could select an elective topic of their interest (96%). Students could choose from a pre-defined list of topics provided by the institution (97.9%). Students choose a topic of their personal interest (98%) on faculty recommendation (10.6%). Students strongly agreed elective topics were highly engaging and relevant to their interests (42.1%). Students agreed and strongly agreed that the workload was well-distributed, not overwhelming, and very manageable (83.1%). 78.3% of students agreed elective courses adequately addressed interests and career goals, and 84% agreed that they had assessed through practical projects and case presentations. About 70% disagreed with both written examinations and practical projects for assessment but strongly agreed with practical projects and case presentations (68%), Peer assessments, and self-evaluations (25%) (Table 1).

Some inputs are taken as challenges for improvisation. 12% of students agreed that topics were assigned to them without their input, 50% felt topics should have been more innovative, and 10% had no formal assessment during the electives (Table 2).

A total of 55 teaching faculty with roles as preceptors were surveyed. About 90% of them highly valued the introduction of elective modules, and 85% were happy with the selection process. (Table 3) 45.5% of teaching faculty had faced challenges in ensuring equitable access to electives for all students due to the limited availability of elective courses, and 36% strongly agreed that logbook entries and documentation are not valued after its completion (Table 4).

Thematic Analysis of Focus Group Discussion (Table 5) with students and teaching faculty revealed many perspectives in their own words.

DISCUSSION

A questionnaire-based cross-sectional survey for an educational evaluation regarding the implementation of the

Table 1: Student perceptions

SL No	Perceptions	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly agree (%)
1	I could select an elective topic of their interest?	0	2	2	6	90
	What best describes the process of topic selection for electives at your institution?					
2	I could choose from a pre-defined list of topics provided by the institution.	0	0	2.1	19	78.9
3	I had complete freedom to choose any topic of my interest.	10	5	9	15.8	60.2
4	We propose topics and faculty or committees approve or disapprove them.	90	0	10	0	0
5	Personal interest in the topic motivated me to choose specific elective courses	0	0	2	6	92
6	Faculty recommendations motivated me to choose specific elective courses	10	4.4	75	10.6	0
7	Topics are assigned to students without their input	81	4	0	12	3
	Teacher cooperation and support for students during elective courses					
7	Teachers are highly cooperative and supportive.	2	8	20	25.3	44.7
8	Teachers cooperated and offered support, but there is room for improvement.	1	4	29	55.3	10.7
	Students' academic self-perceptions					
9	The topics were highly engaging and relevant to my interests.	0	0	20	37.9	42.1
10	Topics should have been more innovative.	30	10	10	24.7	25.3
	Duration of the elective adequate to achieve the required objectives?					
11	Duration of elective was enough to align with the objectives.	0	3	15.6	13	68.4
12	Duration of elective was too short to achieve the objectives	52	11	32	5	0
13	Duration of elective could have been longer	68	18	11	3	0
	Experience with the workload (assignments, tasks, and assessments)					
14	My workload was well-distributed and not overwhelming.	0	0	16.9	12	71.1
15	The workload often felt heavy and demanding.	30	22	21	18	9
16	Overwhelming; the workload was too much to handle within the elective's timeframe	71.1	12	16.9	0	0
	Students' Perceptions on impact of the course					
17	Elective courses adequately addressed interests and career goals.	0	10	9.7	78.3	2
18	Gained practical clinical skills	0	0	16.7	78.3	5
19	Had exposure to various medical specialties	0	00	16.7	78.3	5
20	Had networking opportunities	0	0	16.7	78.3	5
21	Had research experience	0	0	78.3	16.7	5
22	Had soft skills development	0	0	12.7	78.3	9
	Preferred method of assessments					
23	Traditional written examinations and quizzes	10	14	36	22	18
24	Practical projects and case presentations	0	0	16	16	68
25	Both written examinations and practical projects.	70	13	11	4	2
26	Peer assessments and self-evaluations	9	5	50	11	25
27	Had no formal assessment.	70	5	15	2	8
	Students' perception on improvisation					
	Elective courses could be improved by					
28	By offering more diverse course offerings	0	0	27	40.7	32.3
29	Improved scheduling flexibility	0	0	27	40.7	32.3
30	Enhanced faculty support and guidance	0	0	34.7	35.3	30
31	By integrating with core curriculum	8	19	56	17	0
	Collaboration with other countries for electives.	0	10	20	15	55
	Feedback					
	Elective courses can better foster a sense of curiosity, innovation, and lifelong learning					
32	By offering more research opportunities	0	0	6.3	23.7	70
33	By encouraging interdisciplinary collaboration	0	0	0	21.1	78.9
34	By incorporating real-world healthcare challenges	0	0	12.6	47.4	40
35	I prefer electives out of institution within city	0	16	34	42	8
36	I prefer electives out of institution outside city	9	40	25	16	10

elective module was planned at our medical college. In this survey, students' perception was very optimistic regarding the elective module. Most agreed the topics were highly engaging and relevant to their interests but needed to be innovative.

Teacher cooperation and support for students during elective courses were very good. Various assessment methods such as participation in grand rounds, seminars, case records, submission of assignments, reflection on

Table 2: Challenges which need to be considered for improvisation

2.6% choose a topic because of the non-availability of the topic of their interest.

12% of students felt topics were assigned to them without their input.

50% Topics should have been more innovative.

2.6% of the elective duration was too short to achieve the objectives.

10% had no formal assessment during the electives.

15% We need to include more elective topics covering research experience, networking opportunities, and soft skill development.

Table 3: Perceptions of teaching faculty

92.7% of teaching faculty were familiar with the concept of electives.

80% of teaching faculty strongly agreed with elective course introduction in the medical curriculum.

80% of the teaching faculty agreed it aligns with the goals of medical education.

90% had training or support as a teacher facilitating CBME electives.

75% strongly agreed with the elective topic selection process by students 15% disagreed and felt improvements could be made.

89% strongly agreed that pre-departure orientation/sensitization is a necessity for both students and preceptors.

CBME: competency-based medical education

Table 4: Challenges or drawbacks opinioned by teaching faculty with the implementation of electives

45.5% limited availability of elective courses was a challenge to ensure equitable access to electives for all students

27.3% of teaching faculty had difficulty in scheduling electives alongside core curriculum

45.5% had difficulty in assessing and grading elective coursework effectively

36.4% found it challenging to Balance elective time with mandatory coursework effectively

36% strongly agreed to that logbook entries and documentation are not valued after its completion.

Table 5: Thematic analysis of focus group discussion

Theme	Perceptions
Students'	"It was great exposure of clinical subjects."
	"Learn new skills."
	"Topics should have been more innovative."
	"Teacher cooperation was very good, but more guidance is needed."
	Shorten the duration of paramedical subjects.
	"Students should get ample time to choose topics otherwise it's like first come first serve."
	"Even paramedical elective be allowed outside the institute."
	"Students should be allowed to propose their ideas or topics of interest and allow the institution to choose from said proposal rather than having a pre-defined set of topics that would not totally cater to the interests of the students."
	"It's very good module, Opportunity for the learner to explore, discover, and experience areas of interest as part of undergraduate."
	"Timings should not exceed 3 h, attending 9–4 is bit difficult."
	"Increased hands-on experience can be given to students so as to get increased clinical experience."
	"More use of technology while explaining procedures."
	"Orientation should be given for outside the university or institution electives."
Teaching faculty's	"Apart from logbook entry of the electives, the students should be allotted marks for the same which should be added to the internal marks."
	"Increase the number of staff to cater to all the new introductions in the curriculum including electives."
	"Overwhelming; the workload was too much to handle within the elective's time frame."
	"Too many assessments."

learnings, preparation of abstracts for research posters, design, and participation in patient education programs were used. Most of the students rated the overall experience of electives as good to very good.

Similar findings were reported in a similar study by Vidja et al., said that 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%), greater exposure to patients (16%). Furthermore, they mentioned the helpful nature of faculty members (13%) as one of the strengths of the program.[5] Another study by Justina Princess and Bhushan reported that Nearly 49% of the students strongly agreed that the faculty were supportive, helpful, and reachable to

clear their doubts. 61.2% of students felt it was experiential learning, 19.7% felt it was supervised learning, and 16.3% termed electives as immersive learning. About 39% of students strongly agreed that electives are essential in the undergraduate curriculum.[6] Hence, in our study, general satisfaction was higher compared to other studies, which is an indicator of the success of the course. Limitations such as resource constraints limiting the availability and diversity of electives. International, outside the university or institution electives, can provide exposure to advanced medical practices.

Limitations of the study

Limitations are responses from participants that may be influenced by personal biases or experiences.

CONCLUSION

The perceptions of students and teaching faculty regarding topic selection, content, workload, duration, and assignments were overwhelmingly positive. However,

certain challenges emerged that offer opportunities for improvement. These include the need to incorporate more innovative topics related to super-specialty subjects, establish collaborations with external institutions, and ensure the availability of sufficient resource faculty. To reduce workload, the adoption of electronic logbooks and e-assessments can be considered. In addition, pre-departure orientation sessions for both faculty and students should be conducted to familiarize them with available topics, assessment processes, and documentation requirements. Addressing these aspects calls for strategic institutional policy changes to enable better curriculum design and effective implementation.

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