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Elective module in undergraduate medical curriculum: Implementation and its perception

Padmanabh Inamdar[1], Dhanashree P. Inamdar[2], Anuradha B.[3], Malatesh Undi[4]
[1,2,3] Kaloji Narayan Rao University of Health Sciences, Warangal, India
[4] Rajiv Gandhi University of Health Sciences, Bengaluru, India
docpadmanabh@gmail.com[1], dhanashreeltmmc@gmail.com[2], radha97479@gmail.com[3], malatesh.u@gmail.com[4]

ABSTRACT

The National Medical Commission (NMC) in India introduced the elective module proactively. There is a need to study the ease and difficulty of implementation along with student and faculty perceptions to initiate corrective action. Hence, the present study was undertaken to explore the perception of faculty and students towards elective modules and understand the ease and difficulty of implementing Elective modules. A cross-sectional study was conducted after the implementation of the elective module, and student and faculty responses were collected using a Google Doc questionnaire. Responses were collected in the form of a 5-point Likert scale. A total of 120 responses from medical students and 40 responses from faculty were included for data analysis. Most students felt that the elective module met their expectations, and the staff was supportive. Knowledge and experience gained were satisfactory, which led to overall professional development. Faculty were also satisfied and needed to include it in the medical curriculum. However, few believed it led to additional work burden. It also requires strengthening infrastructure facilities, faculty availability, interdepartmental coordination, and development programs. Implementing the elective module was a satisfactory learning experience for faculty and students. However, there is room for improvement and refinement.

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ABSTRAK

Modul pilihan diperkenalkan secara proaktif oleh National Medical Commission (NMC) di India. Perlu dikaji kemudahan dan kesulitan pelaksanaan serta persepsi mahasiswa dan dosen agar tindakan perbaikan dapat dimulai. Oleh karena itu penelitian ini dilakukan dengan tujuan untuk mengetahui persepsi dosen dan mahasiswa terhadap modul elektif serta memahami kemudahan dan kesulitan dalam mengimplementasikan modul elektif. Studi cross-sectional dilakukan setelah pelaksanaan modul elektif dan tanggapan mahasiswa dan fakultas dikumpulkan menggunakan kuesioner Google Doc. Tanggapan dikumpulkan dalam bentuk Likert 5 poin. Sebanyak 120 tanggapan dari mahasiswa kedokteran dan 40 tanggapan dari fakultas dimasukkan untuk analisis data. Sebagian besar siswa merasa bahwa modul pilihan memenuhi harapan mereka, staf mendukung. Pengetahuan dan pengalaman yang diperoleh memuaskan dan mengarah pada pengembangan profesional secara keseluruhan. Fakultas juga merasa puas dan merasa perlu untuk memasukkannya ke dalam kurikulum kedokteran. Namun, hanya sedikit yang percaya bahwa hal ini menyebabkan beban kerja tambahan. Hal ini juga memerlukan penguatan sarana prasarana, ketersediaan fakultas, koordinasi antar departemen, dan program pengembangan fakultas. Penerapan modul pilihan merupakan pengalaman belajar yang memuaskan baik bagi dosen maupun mahasiswa. Namun, masih ada ruang untuk perbaikan dan penyempurnaan.

Kata Kunci: *fakultas; mahasiswa; modul pilihan; persepsi*

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INTRODUCTION

Medical curriculum saw a paradigm shift with the publication of the Flexner report in 1910. Since then, standardization of the medical curriculum and implementation of alternate curricular pathways in addition to the core curriculum was felt necessary as it could enhance students' interest (Beck, 2004; Lewis et al., 2024; Mikkonen et al., 2009; Wagh et al., 2022). These alternate pathways were designated Electives, including dedicated research time and early clinical experience. Electives are defined as "a period during undergraduate study within which there is a significant element of student choice" (Lumb & Murdoch-Eaton, 2014; Arja et al., 2024). Electives as a part of the curriculum were first introduced in the United States in 1819 (Long et al., 1995; Sampangiramaiah et al., 2024).

Electives were part of medical and nursing students' training in some countries. It took quite a long time for our Indian medical education to recognize and introduce it into the curriculum. The year 2019 was a salient year for medical education as the National Medical Commission (NMC) introduced the Competency-Based Medical Education (CBME) Curriculum, and Indian medical education is going through a transitory phase currently (Leiphrakpam & Are, 2023; Supe, 2019). A new and innovative framework emerged to improve the foremost aim of an Indian medical graduate (IMG) to practice selflessness with integrity, be responsible and accountable for their actions, and respect and maintain professional etiquette. Amongst them, the most crucial and contemporary change was the introduction of "electives" (Mathur et al., 2023; Mahajan & Singh, 2021).

An elective is a learning experience: a voluntary option to research, unearth, involve, and understand an area of interest in the medical curriculum that enhances 'transformative learning' for the given learner (student) (Kusurkar & Croiset, 2014; Mahajan, 2020). Transformative learning is expanding one's consciousness through thought-provoking beliefs and suppositions that alter one's behavior for the better (Mezirow, 1994). Individual skills and engrossment amplify when learners can choose an elective topic, further enhancing their learning capacity. Students become more receptive, and they tend to be more responsible. Electives are way beyond regular teaching like lectures or seminars as they involve better student and preceptor interaction, which provides them with finer experience and helps them appreciate prospects on the topic of their interest (Anand & Sankaran, 2019; Nawagi et al., 2023).

Electives come under the 6th module of the NMC curriculum as a part of the Curriculum Implementation Support Programme (CISP) (Mahajan & Singh, 2021). Implementation of this module depends on the institute's perception and comprehension. As per this curriculum, initially, 2 months were designated for electives at the end of MBBS Phase III, Part 1, and before the commencement of MBBS Phase III, Part 2. Electives were divided into two blocks (4-week duration each). Later, this duration was reduced to 1 month and divided into two blocks (2 weeks each). This serves as a distinctive training experience before an internship. Block 1 electives were done in a pre-clinical, paraclinical, or other basic sciences laboratory or under the supervision of a researcher in an ongoing research project. On the other hand, Block 2 was done in a department of clinical orientation, such as specialties, super-specialties, casualties, blood banks, and ICUs. As this was at its initial implementation stage for students and faculty, many challenges were encountered for preceptors and learners and

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at the institutional level in providing facilities and requirements to implement it. Although it is student-friendly (learner-friendly), it demands additional commitment and time from faculty. Skepticism has been raised regarding the methods of 'assessment' required after the end of electives. These methods include attendance tracking, logbook entries, portfolios, and completing postings with an 'M' (meets the expectations) grade as per NMC guidelines.

Electives have been part of the medical curriculum in many countries. Various studies emphasized the importance of students' exploratory learning in medical education. In one of the brief reviews on international electives, US osteopathic medicine overlooked the growing global osteopathy profession. The evolution of osteopathic medicine worldwide led to the establishment of organizations like the Osteopathic International Alliance (OIA) to enhance recognition and standards. However, despite compulsory US osteopathic manipulative medicine (OMM) training, many graduates rarely used it, whereas international osteopaths often integrated it passionately. Hence, the author suggested merging international health electives with exposure to global osteopathy to inspire US-trained osteopaths and strengthen osteopathic identity (Comeaux, 2013; Tuscano et al., 2024).

The document explored the role of electives in medical education, emphasizing their flexibility and potential to enhance learning. It discussed various electives, including global health placements, research opportunities, and career exploration, highlighting their educational value and challenges. The guide stressed the need for structured preparation, ethical considerations, and risk management, particularly for international electives. It also advocated for better monitoring, formal assessment, and institutional support to maximize the educational benefits of electives while ensuring student safety and professionalism (Lumb & Murdoch-Eaton, 2014).

Another international study explored how international health electives (IHEs) contribute to the six Accreditation Council for Graduate Medical Education (ACGME) core competencies. The research analyzed post-rotation reflective reports from residents participating in the Mayo International Health Program. The study reviewed the experiences of 377 residents across 40 specialties who completed IHEs in 56 countries between 2001 and 2014. Thematic analysis identified multiple learning benefits within each ACGME core competency, including patient care, medical knowledge, practice-based learning, communication, professionalism, and systems-based practice. Themes included improving clinical reasoning, understanding socioeconomic determinants of health, working in resource-limited settings, and fostering cross-cultural communication. The findings supported the development of standardized competencies and assessment tools for IHEs in graduate medical education (Nordhues et al., 2017).

The study investigated the state of international clinical electives in Japanese medical schools. It aimed to assess the number, characteristics, and support systems for Japanese students traveling abroad and international students coming to Japan for exchange programs. This nationwide survey, conducted from 2011 to 2013 with responses from all 80 Japanese medical schools, found that approximately 70 schools participated in exchange programs annually. Most Japanese students chose destinations in Europe and North America, primarily for medical knowledge and English exposure. In contrast, most international students coming to Japan were from Asian countries, with pediatrics being the most popular elective. The study highlighted the increasing incorporation of international electives in

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Japanese medical education and their role in fostering global collaboration(Suzuki & Nishigori, 2018).

Another international study explored the state of global health education in Sweden's medical schools. It examined how global health topics are incorporated into medical curricula and assessed students' perceptions of their preparedness in global health competencies. The study collected data from all seven Swedish medical schools (2000–2013) and surveyed 439 final-year medical students. Findings revealed that most students felt they lacked knowledge in key areas such as the global burden of disease, social determinants of health, climate and health, and healthcare systems. A significant correlation was found between the level of global health education received and self-assessed competence. 83% of students wanted more global health education in their curriculum, and 67% supported making it mandatory for medical training. The study concluded that Swedish medical students desire expanded global health education, which could enhance their professional development and preparedness for global healthcare challenges (Ehn et al., 2015).

These studies indicate that elective posting makes the students become self-directed learners because they are opted by students. This makes the curriculum student-centric rather than teacher-centric. These studies, however, do not discuss the challenges faced by students and teachers due to changes in curriculum in general and implementing elective modules in particular. Moreover, in India, electives were implemented proactively for the first time at all medical colleges at the grassroots level. There was a need to address the perceived advantages, challenges, and steps taken by both preceptors and learners to overcome those challenges. Hence, the present study was undertaken to explore the perception of faculty and students towards newly introduced elective modules and understand the ease and difficulty of implementing this module.

LITERATURE REVIEW

Theories on Elective Module

Several educational theories have tried to explain the role of elective modules in medical education. Key theoretical frameworks support the implementation of elective modules. The self-directed learning theory proposes that elective modules provide autonomy, encourage intrinsic motivation, and align adult learning principles. The experimental learning theory emphasizes hands-on experience. The four-stage cycle (Concrete Experience, Reflective Observation, Abstract Conceptualization, and Active Experimentation) is often applied in clinical and research electives. Constructivist Learning Theory emphasizes learning as an active, social process, promoting problem-solving and adaptability in various medical settings. Career development Theory focuses on various professional roles, shaping identity and future specialization (Super, 1980; Alexander, 2023).

Elective module for Medical Education

Competency-Based Medical Education (CBME) is a recent framework that proposes that Electives align with CBME by allowing students to develop competencies in chosen areas. It focuses on skill acquisition, assessment of competencies, and real-world application. Elective

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module strengthens experiential learning, promotes self-directed learning, and unearths various specialties of interest. Students and faculty's perceptions of elective modules are necessary for optimizing implementation and ensuring equal satisfaction of both students and faculty (Banerjee, 2010; Badrawi et al., 2023). Few recent studies have discussed the importance of elective modules in the medical curriculum. A recent study in 2020 found that students consider electives to be valuable and highly regarded experiences (Ramalho et al., 2020).

Students tend to appreciate the flexibility and customization that electives offer, allowing them to tailor their learning experiences to their interests and career goals. The most significant determinants in this study included agreement with teaching and learning methodologies, assessment methodologies, workload, and the requirement for continuous work. Students now understand that electives can help them to be innovative and guide them to their careers. Although positive perceptions have been seen in this study, some challenges exist. Recent studies have highlighted the importance of this newly introduced module in our country (Gopalakrishnan et al., 2022; Soundariya et al., 2022).

A study in 2023 highlighted that students lacked awareness and knowledge about electives. This lack of awareness can make it difficult to choose appropriate electives they are interested in and fully benefit from the experience. This study recommended that medical institutions provide adequate information and guidance to students regarding electives (Sinha et al., 2023). Researchers concluded that the module is perceived positively. Adding open-ended questions can improve the perception, experiences, and feedback. This will help modify and upgrade the module, satisfying students and faculty.

METHODS

Study design and setting

We planned for a cross-sectional study which is an observational study that analyzes data from a population at a single point in time (Setia, 2016; Wang & Cheng, 2020). They are often used to measure the prevalence of education outcomes, understand health determinants, and describe a population's features. It was conducted at the Department of General Surgery in collaboration with the Medical Education Unit, Mamata Medical College and Hospital, Khammam, Telangana. Institutional Ethical Committee (IEC reference No - MMC/ IEC/2022/2945/90/2023) clearance was obtained before the start of the study.

Inclusion and Exclusion Criteria

All students (learners) and Preceptors (teachers) willing to participate voluntarily in the study were included. Those students and faculty who did not respond to 3 email reminders were excluded from the study.

Methodology

The electives module was conducted at our college per NMC guidelines for 1 month. Students were posted in Block 1 (pre- and para-clinical) for 15 days and Block 2 (Clinical) for 15 days.

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The present study comprised 150 students of the 7th semester (MBBS phase 3 part 2) of Mamata Medical College, Khammam, Telangana, who had undergone elective postings and faculty (preceptors for those electives) from different departments who were willing to participate in the study. Before sharing the questionnaire link, students and faculty were informed about the study protocol in lecture class and by WhatsApp group. The timeline of Implementation is shown in **Figure 1**.

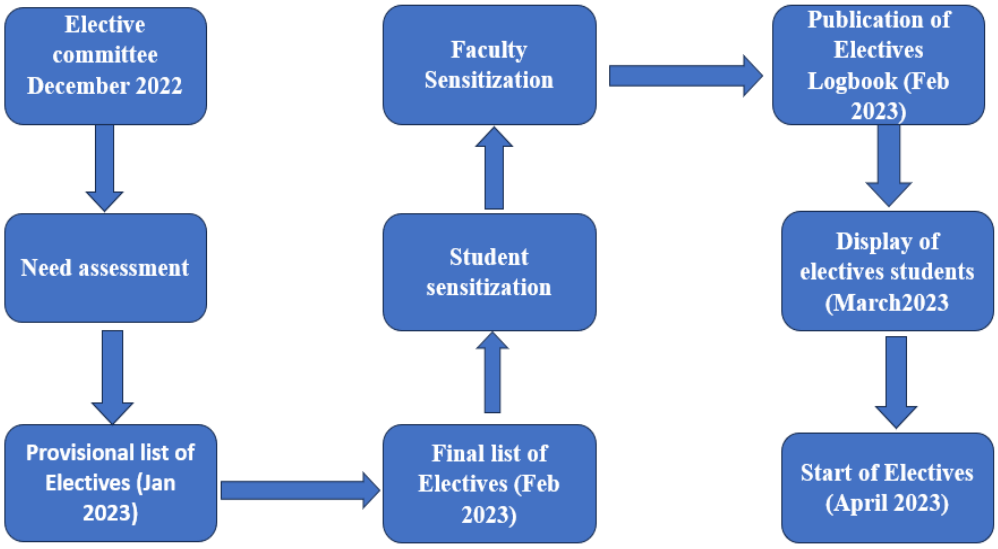

Figure 1. Implementation of Electives – Timeline
Source: Research 2024

A cross-sectional study was done by sending a questionnaire addressing different aspects of the elective module. Responses were collected on a 5-point Likert scale ranging from strongly agree to strongly disagree (Strongly agree, agree, neutral, disagree, and strongly disagree). The 5-point Likert scale was converted to 3 points for statistical calculations as Agree, Neutral, and Disagree. It was then followed by an open-ended question asking students and faculty to share their feedback in suggestions, comments, and recommendations. It was an online survey questionnaire using Google Forms that was sent to students via an online link.

Questionnaire

It consisted of questions with various survey items distributed over seven different sections:

1. Consent
2. Demographic data- gender
3. Prerequisites for the elective module are information, arrangements, objectives, and activities.
4. Student/faculty sentiment: interest, engagement.
5. Overall satisfaction: time, need, professional development, knowledge.
6. Student-faculty interaction: through supervision.
7. Challenges faced: workload.
8. Open-ended questions on perception, experience, and feedback by students

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The student questionnaire included their perception of the value of the elective, their interest in a career in medical research, and skills acquired from the elective through separate sections in the Google Forms for Block 1 and Block 2. The faculty questionnaire included ease or difficulty in implementing electives in the department, resources needed, cooperation of faculty, students' interest in participation, and the utility of electives for undergraduate students.

Statistical analysis

All the data regarding the study obtained through Google Forms was imported to Microsoft Excel 2018 and further analyzed using statistical software IBM SPSS version 16.0. Descriptive analysis included mean and percentages. Inferential statistics included the Chi-square test. A *P* value< 0.05 was considered statistically significant.

RESULTS AND DISCUSSION

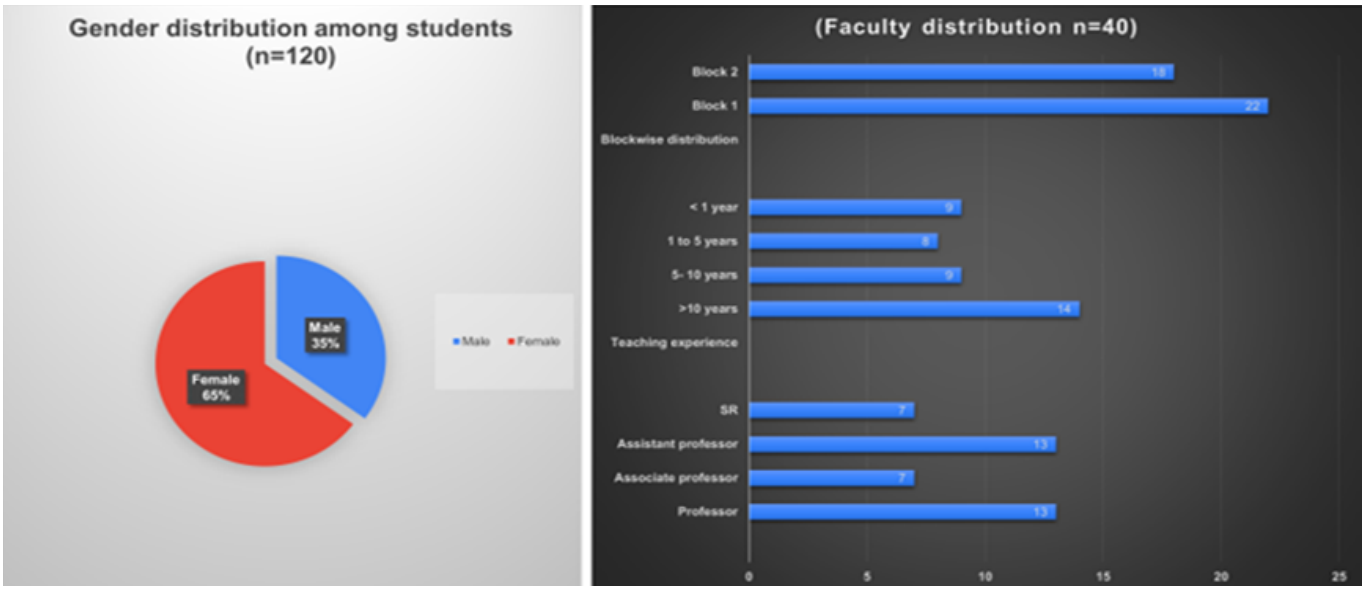

Figure 2. Demographics of Faculty (n=40) and Students (n =120)
Source: Research 2024

The present study received a good response from faculty and students. The demographic profile of students and Faculty distribution is shown in **Figure 2**. We received responses from 120 out of 144 undergraduate students (83.33%) and 40 out of 44 (90.9%) faculty from Block I and Block II. Among the student respondents, boys constituted 35% (42), and girls constituted 65% (78). Many experienced professors, 32.5% (13), also volunteered for the electives program.

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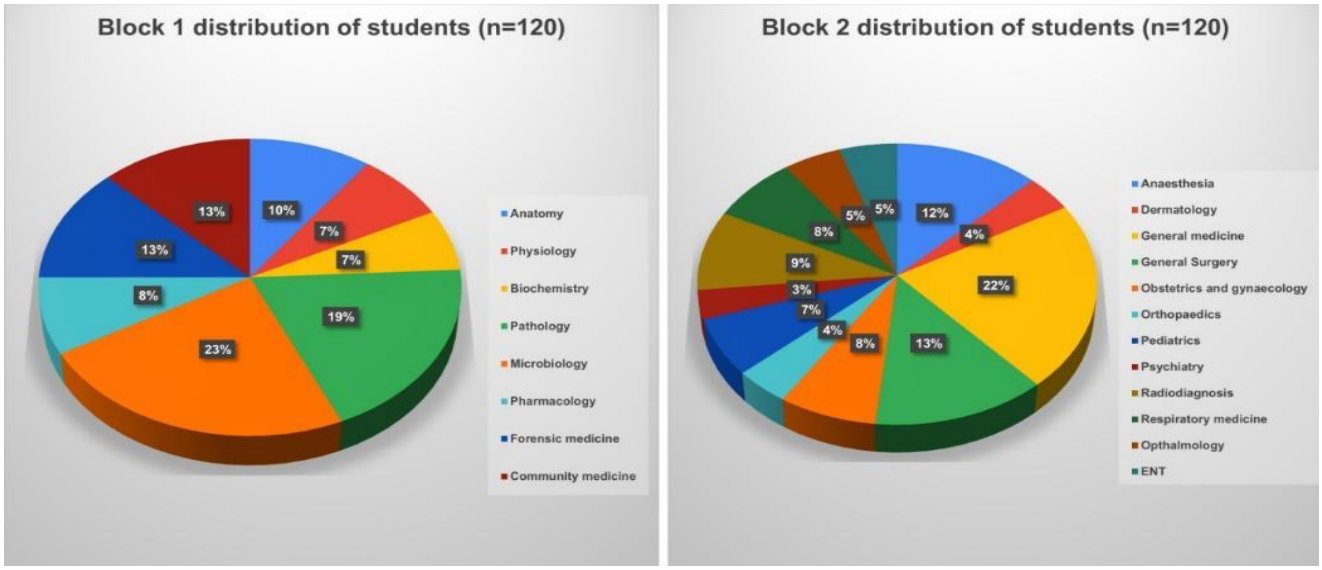

Figure 3: Block Wise Distribution of Students**.**
Source: Research 2024

Figure 3 shows the block-wise distribution of students. Most students selected Pathology (19.1%), Microbiology (23.3%) from Block 1, General Medicine (26%), and General Surgery (13.3%) from Block 2.

Table 1. Students' perception of electives: Block 1 and Block 2

No.	Questionnaire n=120	Blocks	Responses			*P* value
			Agree (%)	Neutral (%)	Disagree (%)	
1	Adequate information was provided before elective	1	95 (79.2)	19 (15.8)	6 (5)	0.0313*
		2	80 (66.7)	23 (19.2)	17 (14.2)	
2	Adequate arrangements were made	1	87 (72.5)	20 (16.6)	13 (10.8)	0.0312*
		2	68 (56.7)	28 (23.3)	24 (20)	
3	Learning Objectives were clear before start of electives	1	97 (80.8)	20 (16.6)	4 (3.3)	0.0060*
		2	81 (67.5)	21 (17.5)	18 (15)	
4	List of activities student will involve was informed before start of elective	1	98 (81.7)	15 (12.5)	7 (5.8)	0.0240*
		2	81 (67.5)	21 (17.5)	18 (15)	
5	Adequate supervision was carried out during electives	1	98 (81.7)	14 (11.6)	8 (6.7)	0.0294*
		2	80 (66.7)	25 (20.8)	15 (12.5)	
6	Time and duration of Elective was adequate	1	86 (71.7)	17 (14.1)	17 (14.2)	0.220
		2	80 (66.7)	27 (22.5)	13 (10.8)	
7	Provided opportunity and contributed to overall professional development	1	88 (73.3)	22 (18.3)	10 (8.3)	0.048*
		2	70 (58.3)	33 (27.5)	17 (14.2)	
8	Adequate opportunity provided for hands-on work in the subtopic chosen.	1	85 (70.8)	21 (17.5)	14 (11.7)	0.0280*
		2	67 (55.8)	25 (20.8)	28 (23.3)	

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No.	Questionnaire n=120	Blocks	Responses			*P* value
			Agree (%)	Neutral (%)	Disagree (%)	
9	Module provided active learning through discussion/participation	1 2	100 (83.3) 87 (72.5)	17 (14.1) 22 (18.3)	3 (2.5) 11 (9.2)	0.046*
10	Electives met my expectations and generated interest.	1 2	78 (65) 61 (50.8)	28 (23.3) 36 (30)	14 (11.7) 23 (19.2)	0.071
11	Electives had more workload compared to routine clinical postings	1 2	81 (67.5) 85 (70.8)	17 (14.1) 23 (19.2)	12 (10) 12 (10)	0.575
12	Knowledge and experience gained during electives module was satisfactory	1 2	96 (80) 80 (66.7)	17 (14.1) 23 (19.2)	7 (5.8) 17 (14.2)	0.038*

Note: *= Statistically significant
Source: Research 2024

Students' perception of the Electives module was taken as a Likert scale and shown in **Table 1** (Both Block 1 and Block 2). The student response was positive regarding the planning, clarity on objectives, supervision by faculty, opportunity for active learning, and overall professional development. Satisfaction scores for electives were better for Block 1 compared to Block 2. Satisfaction scores were highest for survey items like "module provided active learning through discussion and active participation", "knowledge and experience gained during elective module were satisfactory", "Electives contributed to overall professional development", "adequate opportunity provided for hands on work in subtopic chosen." The student perceptions on distribution of different survey items when compared between Block 1 and Block 2, on items like Availability of Adequate information (P 0.0313), Adequate arrangements (P 0.0312), Clarity of Learning Objectives (P 0.0060), List of student activities informed before start of Electives (P 0.0240), Adequacy of supervision (P 0.0294), Provision for appropriate opportunity (P 0.048), scope for hands-on work (P 0.0280), active learning (P 0.046), Satisfaction of knowledge and experience gained (P 0.038), were statistically significant.

Table 2. Faculty perception on electives: Block 1 and Block 2

No.	Questionnaire Total (n=40)	Blocks	Responses Block 1 (n=22), Block 2 (n=18)			*P* value
			Agree (%)	Neutral (%)	Disagree (%)	
1	Adequate information and arrangements were provided before the elective.	1 2	19 (86.4) 14 (77.8)	2 (9.1) 3 (16.7)	1 (4.5) 1 (5.6)	0.750
2	Objectives and prerequisites were known at the beginning.	1 2	20 (91) 13 (72.2)	1 (4.5) 3 (16.7)	1 (4.5) 2 (11.1)	0.291
3	Students showed interest throughout the elective.	1 2	17 (77.3) 15 (83.3)	4 (18.2) 2 (11.1)	1 (4.5) 1 (5.6)	0.820

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No.	Questionnaire Total (n=40)	Blocks	Responses Block 1 (n=22), Block 2 (n=18)			*P* value
			Agree (%)	Neutral (%)	Disagree (%)	
4	elective provides opportunity to students for active learning through participation.	1 2	19 (86.4) 16 (88.9)	2 (9.1) 1 (5.6)	1 (4.5) 1 (5.6)	0.908
5	Elective module is a good utilization of time in the UG curriculum.	1 2	19 (86.4) 14 (77.8)	1 (4.5) 3 (16.7)	2 (9.1) 1 (5.6)	0.425
6	Elective module helps in overall professional development.	1 2	17 (77.3) 13 (72.2)	4 (18.2) 4 (22.2)	1 (4.5) 1 (5.6)	0.938
7	Student performance met the expectation of faculty.	1 2	19 (86.4) 11 (61.1)	2 (9.1) 6 (33.3)	1 (4.5) 1 (5.6)	0.151
8	Electives module is an additional work burden and needs to be modified.	1 2	7 (31.8) 6 (33.3)	4 (18.2) 6 (33.3)	11 (50) 6 (33.4)	0.457
9	Assessment was easy and needs to be part of summative assessment.	1 2	20 (91) 16 (88.9)	1 (4.5) 1 (5.6)	1 (4.5) 1 (5.6)	0.977
10	Would you recommend other faculty to become preceptors in the Elective module.	1 2	20 (91) 16 (88.9)	1 (4.5) 1 (5.6)	1 (4.5) 1 (5.6)	0.977
11	I was satisfied with student performance and the Elective module.	1 2	17 (77.3) 15 (83.3)	4 (18.2) 2 (11.1)	1 (4.5) 1 (5.6)	0.820
12	Elective module instills decision making capacity in students which helps them in career prospects.	1 2	19 (86.4) 10 (55.6)	2 (9.1) 5 (27.8)	1 (4.5) 3 (16.7)	0.094

Source: Research 2024

Faculty perception of implementing the Electives module in both Block 1 and Block 2 is shown in **Table 2**. Most faculty were satisfied with the arrangements made. The module met the expectations, generated interest, reinforced teaching, and was satisfied with student performance. Faculty also felt the need to include electives as a summative assessment. Satisfaction scores were highest for survey items like "Students showed interest throughout the elective", "elective provides an opportunity to students for active learning through participation", "Elective module is good utilization of time in UG curriculum", "Elective module helps in overall professional development", "Assessment of student performance was easy due to one to one interaction", "Would you recommend other faculty to become preceptors in Elective module", "I was satisfied with student performance and Elective module as a whole". When compared between Block 1 and Block 2, faculty perceptions of the distribution of different survey items were not statistically significant (P >0.05).

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Table 3. Student perception on merits and demerits for blocks 1 and 2, along with suggestions for improvement (open-ended questions)

Merits	Demerits	Your suggestions/comments
"Practically experienced, I learned skills needed, happy"	*"It would have been more helpful if we had more time allotted."*	*"Increase interaction with student's faculty and patients."*
"It was an innovative and interesting module. We were assigned work daily."	*"No sufficient time"*	
"Gained knowledge about research activity and worth of attending electives for 15 days."	*"Lack of time for faculty interaction"*	*"At least one month is needed for research activity."*
"Objectives and mentor were good, learned and experienced new things."	*"15 days is very little time to concentrate on a topic."*	*"Need to increase the number of days."*
"We had good Interaction with patients. It gave much satisfaction."	*"Lack of coordination"*	*"Modify the timing."*
"Mentor guiding is good. The electives are beneficial and interesting."	*"Very short time. It was rushed and did not go till the depth of the subject."*	*"More clinical exposure required."*
"Was able to have hands-on experience and explore the topic deeply."	*"Lack of time"*	*"We felt that we could have learned more if the electives lasted a few more days."*
"Actively learn new knowledge and gain great experiences."	*"Need more clinical exposure and lab activities."*	*"More patient-oriented learning"*

Source: Research 2024

Open-ended questions were asked to the students to comment on the merits and demerits of Electives in Block 1 and Block 2. Experience and suggestions for improvement were given as we implemented it for the first time, along with feedback on further improvement. Although all the comments and suggestions of 120 students cannot be tabulated in the manuscript, a few sample experiences have been provided as references. **Table 3** highlights students' narrative descriptions of merits and demerits and suggestions for improvement in both Blocks 1 and 2. Even though the majority were satisfied with Block 1 and Block 2 electives, we could infer from scores that there is much room to improve, and the module needs to be more refined and more student-centric. Most students commented that time is insufficient and should be increased to 1 month as they could not learn to their satisfaction in 15 days. They were more interested in hands-on training, more freedom to involve patients, and more interaction with faculty members.

Discussion

The present CBME curriculum is student-centric, and students' opinion matters the most in any education system (Houlden et al., 2004; Majeed et al., 2023). Indian Medical Education is passing through a transitory phase as a traditional teaching system is still followed along

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with the newly introduced CBME curriculum. The National Medical Commission (NMC) has introduced many important and innovative medical training courses, such as foundation courses, student-centric teaching, early clinical exposure, integrated teaching and learning, and the Attitude Ethics and Communication module (AETCOM). The aim was to make students more self-directed and experiential learners. Introducing a new module like 'Electives' in medical colleges has led to doubts and several questions regarding its implementation. The rationale for introducing electives was to create a learning experience in the curriculum to allow the learner to explore, discover, and experience areas of interest in his profession (Kumwenda et al., 2015; Renaud-Roy et al., 2020).

Implementation of the Elective Module

The structure of electives requires faculty involvement in both Pre and Para clinical subjects. Block 1 is pre and paraclinical posting, and Block 2 is clinical department posting. Implementing the module required a lot of planning, coordination, and faculty sensitization before the start of electives (Mathur et al., 2023). It necessitated the creation of an Elective committee with the Dean/Principal as chairman, the Medical Education Unit coordinator as in charge, the appointment of Block 1 in-charge faculty and Block 2 in-charge faculty, and a secretary post for execution of the module. All stakeholders, including heads of the departments and faculty mentors, were sensitized to different sessions by the Medical Education Unit (MEU). Learning objectives, expected outcomes, learning resources, a list of activities, a faculty mentor, and a logbook were created before the beginning of the electives (Khilnani & Thaddanee, 2022).

Barriers to Implementation

Faculty showed initial resistance due to time constraints and reluctance to accept the advantages elective module provided. From an administrative point of view, there were issues with capacity building, provision for logistics, faculty training and sensitization, and creating a Logbook for electives. These problems were overcome by conducting a faculty development program, counseling, and making the stakeholders realize the importance of Electives. Similar views on necessary prerequisites for smooth implementation, the necessary constitution of the core committee, and the preparation required for implementation have been outlined in a study done in 2022 (Sidhu & Mahajan, 2022). Faculty working as medical teachers are the pillars of medical education. The positive attitude of faculty toward CBME implementation (of which Electives constitute one of the modules) can be attained through faculty development programs (FDP), as noted by two recent studies (Gopalakrishnan et al., 2022; Soundariya et al., 2022).

Perception of Students and Faculty Towards Elective Modules

Although students displayed significant interest and curiosity about electives, not all were satisfied with the options available. Many faced issues like limited accommodation, safety concerns in areas like the emergency room, low motivation among some participants, and the fixed duration of electives (Neel et al., 2018). Some students felt that specific electives

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had too many participants, and many expressed a desire to extend the 15-day duration for a better experiential learning opportunity. Studies indicate that filling the logbook and completing it to the satisfaction of the faculty was a concern for a few students (Harvey et al., 2020; Vidja et al., 2023). A study done in 2021 on learners' perspective on CBME felt that the Elective module was perceived as a good initiative (Ramanathan et al., 2021). While the faculty acknowledged the importance of electives for students, their opinions varied. They recognized that creating and executing electives is labor intensive, requires handling alongside their routine work, lacks clear guidelines for assessment, and involves time-consuming tasks such as framing Specific Learning Objectives (SLO), which sometimes present ethical challenges. Several studies have expressed similar views as Clinicians felt that sufficient time could not be given due to a busy schedule (Neel et al., 2018; Drum et al., 2021).

Solutions to the Successful Implementation of Elective Modules

Electives are exciting new ways of learning something a student wants to pursue in the future. Hence, they are emotionally attached and internally motivated to attend. Even though students and teachers are optimistic about Electives, much room exists for improvement. Proactively introducing modules across all government and private medical colleges presents several challenges. These include enhancing infrastructure facilities, increasing the number of available faculty members, improving interdepartmental coordination, and implementing faculty development programs (FDPs) (Zodpey et al., 2016). Additionally, there is a need to modify the attitudes of both teachers and students, provide training and support, ensure the administration's commitment, and create a learner-centered environment that encourages students to become self-motivated and self-directed. Teachers must make additional efforts to change the mindset of medical students and should regularly participate in faculty development programs to stay current with advancements in the field (Bhuiyan & Rege, 2011; de Carvalho-Filho et al., 2020).

CONCLUSION

The response to electives from students and faculty was positive, with both groups enjoying the student-centric learning and one-to-one interactions. Even though it was difficult, implementation was successful with faculty sensitization and guidance. Policymakers and administrators should consider these perceptions to implement necessary changes for the successful integration of Electives in the CBME curriculum. However, this study had a few limitations. We could not accommodate all students in a single elective of their choice due to a lack of infrastructure and faculty. Few students were shifted to other electives of their choice as it was implemented for the first time. Due to time constraints, feedback could not be collected from other stakeholders like administrators and hospital management during implementation. Validation and standardization of the questionnaire could have made it more reliable.

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AUTHOR'S NOTE

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