

Original Article



Students' perspectives and expectations on the planning phase of elective postings in phase III of the MBBS program

Dhivya Manickam^{1*}, Jeevithan Shanmugam², Sridhar MG¹, Blesson S. Fogarty³, Akshay Kumar³

¹Department of Biochemistry, KMCHHSR, Coimbatore, Tamilnadu, India

²Department of Community Medicine, KMCHHSR, Coimbatore, Tamilnadu, India

³KMCHHSR, Coimbatore, Tamilnadu, India

Article info

Article History:

Received: August 8, 2024

Accepted: September 24, 2024

Published: December 14, 2024

Keywords:

CBME, NMC, Electives, Perspectives, Expectations, MBBS students, Government medical colleges, Self-financing medical colleges

Abstract

Background: The National Medical Council (NMC) in its new Curriculum Based Medical Education (CBME) has mandated four weeks of elective postings for phase III part II MBBS students of 2019 batch. Each student will undergo two weeks of training in block-1 subjects including pathology, microbiology, virology, biochemistry, genetics, molecular biology, immunology, infection control, research, community outreach experience and others. Block-2 electives include psychiatry, neonatology, dermatology, rehabilitation and palliative care, hematology, oncology and others. Since the 2019 batch of students were the first batch of students who have undergone elective postings, this study was conducted to understand their perspectives and expectations about the planning phase of the elective postings, so that appropriate changes could be made in the future to make the learning experience more fruitful.

Methods: This was a questionnaire-based study done among 198 phase III, part II MBBS students in various Government and self-financing medical colleges across South-India (mainly Tamilnadu). The google form questionnaire was shared to the students through social media platforms.

Results: Among the study participants 25% were from Government medical colleges and the 75% are from self-financing medical colleges. Majority of the students chose the block-2 elective subject based on their interest whereas only half of the students chose their elective subject in block-1 based on interest. A significantly higher number of students in private medical colleges were given information about the expected learning experience in each elective posting before choosing one in block-1. A significantly higher number of students in block-1 were given a schedule and logbook when compared to block-2. All the students were given a logbook in Government medical colleges in both block-1 and block-2 postings.

Conclusion: Providing a proper learning environment and appropriate planning by the stakeholders for elective postings, as recommended by the NMC will motivate the students to perform better academically and will guide them to choose their specialization based on their interests and the needs of the country.

Introduction

The MBBS coursework follows the popular CBME (Curriculum Based Medical Education) envisioned by National Medical Council (NMC). One of the interesting changes made in this new curriculum is the introduction of elective postings. According to Lumb et al¹ elective postings for undergraduate students will promote transformative learning. Mahajan et al² have proposed that these elective postings were introduced to inculcate critical thinking, communication skills, clinical/psychomotor skills in the undergraduate students. Mahajan et al² in their study have said that these elective postings were ideated as supervised as well as self-directed, experiential and immersive learning experience for the students.

This has provided an opportunity for each Indian medical student to explore his/her interested subject/field through the mandatory elective postings in phase III part 2 of the MBBS course. This idea of structured elective posting has been devised by the NMC to enable the students to experience new, diverse and interesting aspects of various subjects/branches of medicine in a safe and stimulating learning environment. This exposure will help the students to choose their career path and also motivate them to perform better academically to emulate the clinicians/mentors who have inspired them.

The NMC mandates that two months are to be designated for elective postings after the completion of phase III part 1 MBBS course before the beginning of

*Corresponding author: Dhivya Manickam, Email: dhivyaanandan10@gmail.com

part 2. The elective postings should be divided into two blocks of four weeks each. Block-1 includes postings in phase 1, 2 MBBS subjects or under a researcher as a part of an on-going research project. Block-2 includes all phase-3 part 1 and part 2 subjects, super specialty departments, ICU, urban or rural community health center experience. According to the NMC electives document³, a student should have a minimum of 75% attendance in elective postings so that he/she can appear for the phase III part 2 examinations.

As per the NMC document,³ it is recommended that well-defined learning objectives, a time-table of activities, pre-requisite learning materials should be made available to the students before the electives, so that they can make an informed decision while choosing an elective subject. The NMC also gives provisions for elective postings outside the institution based on feasibility. NMC advises to conduct a formative assessment at the elective postings in the form of seminars, case presentations, portfolio maintenance, participation in grand rounds, research activities.

The success of any new program can be truly measured only by analyzing the feedback of the beneficiaries, here, students. This study was designed to collect feedback from the students who have completed their elective postings in different colleges about their perspectives on the planning of the elective postings so that appropriate changes could be made in the future, so as to make the learning experience more fruitful to the students.

Materials and Methods

This questionnaire based cross-sectional study was conducted with participation of among 198 phase III part II MBBS students of medical colleges across South India, during August 2023-December 2023. The Institutional Human Ethics Committee (IHEC) clearance was obtained prior to the start of the study. A predesigned, structured questionnaire was developed, validated and converted into google form. A pilot test run was done to check for the understandability, unambiguity, feasibility and validity. Then, the questionnaire was circulated via social media platform to various medical college forums/students/faculty members to be circulated among the students.

The CBME curriculum was implemented from the year 2019 onwards. So, the 2019 batch of MBBS students across South India who have attended the elective postings participated in the study. Voluntary opt-in method of sampling was followed. The first section of google form questionnaire contained the participant information sheet which had the information about objectives of the study, the rights of the participants and other ethical issues concerned. Only those who consented to participate in the study were directed to the next session of the questionnaire. If not, they will be directed to the submit form page.

The data collection was made anonymous without asking for the student's name and age, but his/her year

of joining MBBS, the college in which they are studying were obtained. The questionnaire was designed so as to understand the factors which made them choose a particular elective, the readiness of each department towards electives, expectations of students from each elective posting. The data entered was exported to excel and was analyzed using SPSS version 27.

Perceptions and expectations of students were expressed as frequencies and percentages, chi-square test was used to measure the association between block-1 and block-2 subjects, between Government and self-financing medical colleges. *P* value less than 0.05 was considered statistically significant.

Results

A total of 177 (89.39%) participants were from Tamilnadu. 16 (8.08%) were from other South Indian states (Kerala, Karnataka) and 5 (2.35%) were from Central India (Maharashtra). Among the study participants 46 (25%) were from Government medical colleges and the 144 (75%) are from self-financing medical colleges.

102 (70.83%) students in self-financing medical colleges and 27 (58.33%) of the Government medical college students chose the elective posting based on their interest in the subject in block-1 and the difference between the two was found to be significant ($P=0.007$). There was no significant difference between self-financing and Government medical college students on this aspect in block-2 postings [128 (88.88%) -self-financing medical college, 38 (81.88%) in Government medical college with a *P* value of 0.187].

147 (77.4%) students in block-1 and 151 (79.5%) students in block-2 said that they were made aware of the expected learning experience in each elective subject based on the brief description provided to them before choosing the elective subject as shown in Table 1. More students in self-financing medical colleges [118 (81.9%) in block-1, 117 (81.3%) in block-2] were provided such a write up when compared to Government medical colleges [29 (63%) in block-1, 34(73.9%) in block-2] as shown in Tables 2 and 3. There was a significant difference in this aspect between Government and self-financing medical colleges in block-1 postings with a *P* value of 0.008.

All the students [190 (100%) in both self-financing and Government in block-1; 144 (100%) in self-financing and 45 (97.8%) in Government in block-2] have agreed that having such prior information will help them in making an informed decision as shown in Table 4.

173 (91.1%) students in block-1 and 156 (82.1%) students in block-2 were provided with a timetable of the proposed activities in their chosen elective posting as shown in Table 1. Significantly higher number of students in block-1 were provided with a timetable of activities when compared to those in block-2 ($P=0.01$) as shown in Tables 2 and 3. There was no significant difference between self-financing [133 (92.4%) in block-1 and 119

Table 1. Comparison of students' perception between block-1 and block-2 postings

Parameter	Block-1		Block-2		Chi square value	P value
	No.	%	No.	%		
Before you selected the electives, was there a brief description / short write-up of what you would experience in each posting?	147	77.4	151	79.5	0.249	0.62
Were you given a timetable of proposed activities at the beginning of the elective postings?	173	91.1	156	82.1	6.45	0.011
Were you provided with a list of learning resources to be used during the elective postings?	164	86.3	153	80.5	2.302	0.13
Were you provided with a list of prerequisites to be learnt before the elective posting?	154	81.1	153	80.5	0.017	0.9
Has a logbook been given to you / were you asked to maintain one for keeping track of your case records, portfolio, and attendance?	173	91.1	154	81.1	7.915	0.004

The data has been represented in the form of form of frequencies and percentage. *P* value less than 0.05 is considered significant.

Table 2. Comparison of students' perception between self-financing and government medical colleges in block-1 postings

Parameters	Self-financing medical colleges		Government medical colleges		Chi square value	P value
	No.	%	No.	%		
Before you selected the electives, was there a brief description / short write-up of what you would experience in each posting?	118	81.9	29	63.0	7.113	0.008
Were you given a timetable of proposed activities at the beginning of the elective postings?	133	92.4	40	87.0	1.250	0.264
Were you provided with a list of learning resources to be used during the elective postings?	125	86.8	39	84.8	0.121	0.728
Were you provided with a list of prerequisites to be learnt before the elective posting?	119	82.6	35	76.1	0.975	0.324
Has a logbook been given to you / were you asked to maintain one for keeping track of your case records, portfolio, and attendance?	127	88.2	46	100.0	5.964	0.015

The data has been represented in the form of form of frequencies and percentage. *P* value less than 0.05 is considered significant.

Table 3. Comparison of students' perception between Self-financing medical colleges in block-2 postings

Parameters	Self-financing medical colleges		Government medical colleges		Chi square value	P value
	No.	%	No.	%		
Before you selected the electives, was there a brief description / short write-up of what you would experience in each posting?	117	81.3	34	73.9	1.150	0.193
Were you given a timetable of proposed activities at the beginning of the elective postings?	119	82.6	37	80.4	0.115	0.825
Were you provided with a list of learning resources to be used during the elective postings?	115	79.9	38	82.6	0.168	0.431
Were you provided with a list of prerequisites to be learnt before the elective posting?	113	78.5	40	87	1.6	0.285
Has a logbook been given to you / were you asked to maintain one for keeping track of your case records, portfolio, and attendance?	109	75.7	45	97.8	11.11	<0.001

The data has been represented in the form of form of frequencies and percentage. *P* value less than 0.05 is considered significant.

(82.6%) in block-2] and Government medical colleges [40 (87%) in block-1 and 37 (80.4%) in block-2] in this aspect.

139 (96.5%) self-financing medical college students and 45 (97.8%) Government medical college students in block-1 and 140 (97.2%) self-financing medical college students and 44 (95.7 %) Government medical college students in block-2 agreed that providing such a timetable of activities will be useful for them as shown in Table 4.

164 (86.3%) students in block-1 and 153 (80.5%) students in block-2 were provided with a list of learning resources to be used during the elective postings as shown in Table 1. There was no significant difference between self-financing [125 (86.8%) in block-1 and 115 (79.9%) in block-2] and Government medical colleges [39 (84.8%) in

block-1 and 38 (82.6%) in block-2] in this aspect as shown in Tables 2 and 3.

139 (96.5%) self-financing medical college students and 46 (100%) Government medical college students in block-1 and 142 (98.6%) self-financing medical college students and 43 (93.5 %) Government medical college students in block-2 agreed that providing such learning resources will be useful for them as shown in Table 4.

154 (81.1%) students in block-1 and 153 (80.5%) students in block-2 were provided with a list of learning prerequisites before the elective postings as shown in Table 1. There was no significant difference between self-financing [119 (82.6%) in block-1 and 113 (78.5%) in block-2] and Government medical colleges [35 (76.1%) in

Table 4. Comparison of students' expectations between self-financing and Government medical colleges in block-1 and block-2 elective postings

		Private medical colleges		Self-financing medical colleges		Chi square value	P value
		N	%	N	%		
It would have been useful, if a brief description / short writeup of what to expect in each elective was provided prior to selection of the elective subject.	Block-1	144	100	46	100	0	1
	Block-2	144	100	45	97.8	3.147	0.076
A timetable of proposed provided to me at the beginning of the elective postings was/will be helpful.	Block-1	139	96.5	45	97.8	0.192	1
	Block-2	140	97.2	44	95.7	0.281	0.633
The list of learning resources to be used during the elective postings provided/if provided, was / will be useful.	Block-1	139	96.5	46	100	1.640	0.338
	Block-2	142	98.6	43	93.5	3.585	0.093
The list of prerequisites to be learnt before the elective postings provided/if provided, was / will be useful.	Block-1	138	95.8	45	97.8	0.39	1
	Block-2	141	97.9	45	97.8	0.001	1
It was and will be helpful to keep a logbook with attendance, portfolio, and case details	Block-1	144	92.4	46	89.1	0.472	0.543
	Block-2	133	91.4	42	91.3	0.054	0.761

The data has been represented in the form of form of frequencies and percentage. *P* value less than 0.05 is considered significant.

block-1 and 40 (87%) in block-2] in this aspect as shown in Tables 2 and 3.

138 (95.8%) self-financing medical college students and 45 (97.8%) Government medical college students in block-1 and 141 (97.9%) self-financing medical college students and 45 (97.8 %) Government medical college students in block-2 agreed that it will be useful for them if they are made aware of the learning pre-requisites as shown in Table 4.

173 (91.1%) students in block-1 and 154 (81.1%) students in block-2 were provided/were asked to maintain a logbook to record their learning experience throughout the elective postings and almost all of the students have agreed that maintaining such a logbook will enhance their learning as shown in Table 1. Significantly higher number of students in block-1 were provided with a logbook than those in block-2 ($P=0.004$). 127 (88.2%) students were given logbook in self-financing medical colleges compared to 46 (100%) in Government medical colleges in block-1 postings ($P=0.015$). Similarly, 109 (75.7%) students in self-financing medical colleges were given logbook when compared to 45 (97.8%) in Government medical colleges in block-2 postings ($P<0.001$) as shown in Tables 2 and 3.

144 (92.4 %) self-financing medical college students and 46 (89.1%) Government medical college students in block-1 and 133 (91.4%) self-financing medical college students and 42 (91.3 %) Government medical college students in block-2 agreed that providing such a logbook will be useful for them as shown in Table 4.

Discussion

The introduction of elective postings by the NMC in its CBME is a welcome step to improve students' engagement in the coursework. Even though a significantly higher number of students in self-financing medical colleges have chosen their block-1 postings out of interest when compared to their peers in Government medical colleges, the block-1 departments in both self-financing and

Government medical colleges, needs to go an extra mile to encourage the students choose block-1 electives with interest by making the learning experience more clinically relevant, stimulating and challenging to the students. The statistically significant difference between the students who chose the block-1 electives with interest and block-2 electives with interest also emphasizes the importance of providing a safe, non-threatening, clinically relevant and intellectually stimulating learning environment to the students.

According to Reed et al,⁴ one of the main attributes of an adult learner is the ability to make an informed decision. In order to enable the student to take such an informed decision, it becomes the duty of the concerned stakeholders, here, the facilitators, to provide the students with the expected learning experience in each elective posting in the form of clearly listed out learning objectives. There is a glaring lacuna in this aspect between self-financing and Government medical colleges as evidenced by the significant *P* value of 0.008. Moreover, all the students in self-financing and Government medical colleges believed that having such prior information about the expected learning experience will help them to choose the elective posting wisely.

As per Maharjan and Pandey,⁵ providing a time-table/schedule of activities at the beginning of the postings will help the students to plan their learning. Having a time-table will make the learning experience more fruitful, as the students will participate in the elective postings with more seriousness. It will also help both the students and teachers prepare in advance for the day. Even though there was no significant difference between self-financing and Government medical colleges, significantly higher number of students in block-1 were provided with the time-table. Irrespective of the college and the block, more than 95% of the students have agreed that having such a timetable will be useful for them. This expectation from the students reinforces the importance of having a time-table of activities during each of the elective postings in

block-1 and block-2.

Similar to Shershneva et al,⁶ in this era of information overload and availability of wide variety of learning materials ranging from reliable research articles, review papers to unreliable you tube videos and social media forwards, the onus is on the facilitators to provide a list of reliable and easily accessible learning resources to the students that can be used during their respective elective postings. More than 75% of the students in both block1 and block-2, in both self-financing and Government medical colleges opined that having such a list of authentic learning materials will be beneficial for them.

Instead of having to learn things from scratch during the elective posting, it will be easy and useful for the students to build up their knowledge during the elective postings of their choice. As per Kaur and Mahajan,⁷ this will also stimulate their curiosity and enhance their critical thinking. Critical thinking helps medical students understand their viewpoints and evaluate their own learning needs. According to McLean et al,⁸ this could help them become more adept at addressing problems and help them make wise clinical decisions when they have regular clinical encounters in the future. This requires concerted efforts from the students and the facilitators. The students should make use of the list of learning prerequisites and brush up their knowledge on the same before attending the elective postings. More than 95% of the students from Government and self-financing medical colleges have agreed that having such a list of learning prerequisites will enhance their learning experience during elective postings.

According to Shah et al,⁹ a student logbook is a way of documenting his/her work, learning experience, interesting cases, strengths and weaknesses, reflective journaling and their achievements. It also documents whether a student is proficient in his prescribed skills. According to Heeneman and Driessen,¹⁰ a student's logbook is a compilation of their learning reflections and supporting documentation that attests to their academic success. Hence it is the duty of the departments providing elective postings to design a logbook with relevant headings including their daily attendance, allocated pages for reflective writing, case-reports, assessments and their achievements. Significantly higher number of students in block-1 were given a logbook when compared to the students in block-2 postings. Significantly higher number of students in Government medical colleges were provided with a logbook than those in self-financing medical colleges. More than 90% of the students suggested that providing such a logbook to document their learning experience during the elective postings will be beneficial to them.

The limitation of the study is the participation of relatively less number of students from Government medical colleges when compared to the self-financing medical colleges.

Conclusion

Based on the feedback obtained from the students, it can be concluded that the students across self-financing and Government medical colleges, would prefer that the pre-learning points and learning objectives be made available to them before the postings, a time-table of activities to be provided to them at the beginning of each posting, a list of reliable learning sources to be used during the postings to be made available to them and to provide them a logbook to document the learning experience. These steps when included in the planning phase of their elective postings will make their learning experience more fruitful.

Authors' Contribution

Conceptualization: Dhivya Manickam, Sridhar MG, Jeevithan Shanmugam.

Data curation: Dhivya Manickam, Jeevithan Shanmugam.

Formal analysis: Dhivya Manickam, Sridhar MG, Jeevithan Shanmugam, Blesson S Fogarty, Akshay Kumar.

Investigation: Dhivya Manickam, Sridhar MG, Jeevithan Shanmugam, Blesson S Fogarty, Akshay Kumar.

Methodology: Dhivya Manickam, Sridhar MG.

Project administration: Dhivya Manickam.

Resources: Dhivya Manickam, Sridhar MG, Jeevithan Shanmugam, Blesson S Fogarty, Akshay Kumar.

Software: Dhivya Manickam, Jeevithan Shanmugam.

Supervision: Dhivya Manickam.

Validation: Dhivya Manickam, Sridhar MG, Jeevithan Shanmugam, Blesson S Fogarty, Akshay Kumar.

Visualization: Dhivya Manickam, Sridhar MG, Jeevithan Shanmugam, Blesson S Fogarty, Akshay Kumar.

Writing-original draft: Dhivya Manickam, Sridhar MG, Jeevithan Shanmugam.

Writing-review & editing: Dhivya Manickam, Sridhar MG, Jeevithan Shanmugam, Blesson S Fogarty, Akshay Kumar.

Competing Interests

The authors declare no conflict of interest.

Ethical Approval

This study was Approved by KMCH Institute of Health Sciences and Research-Institutional Human Ethics Committee (Ethical code: ICH GCP, Schedule Y, ICMR guidelines).

Funding

None.

References

1. Lumb A, Murdoch-Eaton D. Electives in undergraduate medical education: AMEE Guide No. 88. *Med Teach*. 2014;36(7):557-72. doi: [10.3109/0142159x.2014.907887](https://doi.org/10.3109/0142159x.2014.907887).
2. Mahajan R, Singh T. Electives in undergraduate health professions training: opportunities and utility. *Med J Armed Forces India*. 2021;77(Suppl 1):S12-5. doi: [10.1016/j.mjafi.2020.12.005](https://doi.org/10.1016/j.mjafi.2020.12.005).
3. Medical Council of India (MCI). Electives for the Undergraduate Medical Education Training Program. MCI; 2020. p. 130.
4. Reed S, Shell R, Kassis K, Tartaglia K, Wallihan R, Smith K, et al. Applying adult learning practices in medical education. *Curr Probl Pediatr Adolesc Health Care*. 2014;44(6):170-81. doi: [10.1016/j.cppeds.2014.01.008](https://doi.org/10.1016/j.cppeds.2014.01.008).

5. Maharjan S, Pandey A. Experience sharing: final year MBBS journey. *JNMA J Nepal Med Assoc.* 2021;59(236):425-8. doi: [10.31729/jnma.6363](https://doi.org/10.31729/jnma.6363).
6. Shershneva MB, Slotnick HB, Mejicano GC. Learning to use learning resources during medical school and residency. *J Med Libr Assoc.* 2005;93(2):263-70.
7. Kaur M, Mahajan R. Inculcating critical thinking skills in medical students: ways and means. *Int J Appl Basic Med Res.* 2023;13(2):57-8. doi: [10.4103/ijabmr.ijabmr_214_23](https://doi.org/10.4103/ijabmr.ijabmr_214_23).
8. McLean SF. Case-based learning and its application in medical and health-care fields: a review of worldwide literature. *J Med Educ Curric Dev.* 2016;3. doi: [10.4137/jmeccd.S20377](https://doi.org/10.4137/jmeccd.S20377).
9. Shah N, Singh T. The promising role of the logbook and portfolio in the new competency driven medical curriculum in India. *South East Asian J Med Educ.* 2021;15(1):18-25. doi: [10.4038/seajme.v15i1.269](https://doi.org/10.4038/seajme.v15i1.269).
10. Heeneman S, Driessen EW. The use of a portfolio in postgraduate medical education - reflect, assess and account, one for each or all in one? *GMS J Med Educ.* 2017;34(5):Doc57. doi: [10.3205/zma001134](https://doi.org/10.3205/zma001134).