



## PERCEPTION AND ATTITUDE OF MEDICAL UNDERGRADUATE STUDENTS FOR ELECTIVE POSTING AT GOVERNMENT MEDICAL COLLEGE OF SOUTH GUJARAT

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**ABSTRACT** **Background:** Elective posting were introduced in 2019 as per Graduate Medical Education (Amendment) part II. This study aimed to assess perception of students for elective posting. **Methods:** As per the new Competency Based Medical Education curriculum guidelines by National Medical Commission ,elective postings were planned at commencement of third final MBBS,15 days each for basic/laboratory(Block 1) and clinical sciences((Block 2) respectively, as per student's choice and merit -based allotment policy. Students feedback was taken on prevalidated anonymous feedback questionnaire via google form. Data were entered in MS Excel and analysed using SPSS. Perception analysis presented as percentage of written responses. **Results:** There was overall satisfaction amongst students with aspects like orientation program of electives (80.10%), flexibility to choose postings(69.39%) & opportunities for individualized learning(75.51%). Agreement regarding availability of option in basic science (60.2%) was less compared to clinical science (75.5%). 25% students disagreed for merit based allocation system. Majority of respondents expressed agreement that Block 1 &2 electives provided adequate opportunities for hands-on work/ in-depth learning experiences, acquired additional skills ,acknowledged that assessments were conducted & felt objectives of module were largely met. Students gave variable suggestions regarding future implementation of electives. **Conclusions:** Electives, a new avenue in Indian medical curriculum, is positively accepted by students as it provides opportunity to explore subject of their interest. It is recommended to have subject specific feedback to make it better for future batches.

### KEYWORDS : Electives, Block 1, Block 2, Basic Sciences, Clinical Sciences

#### INTRODUCTION

An elective is a learning experience created in the curriculum to provide an opportunity for the learner to explore, discover and experience areas or streams of interest. As per the regulations on Graduate Medical Education (Amendment) part II released by National Medical Commission (NMC) for MBBS course starting from 2019, there was a provision for two months of Elective rotational postings after completion of third MBBS part I exams and before the commencement of third MBBS part II which was later reduced to one month of elective postings. It included two elective blocks namely, Block 1 for preselected basic sciences or under a researcher in ongoing research project and Block 2 for clinical specialities and super specialities of choice. As per NMC directives, all Institutes will plan number and nature of electives, names of the supervisors, and the number of learners in each elective based on the local conditions, available resources and faculty to provide diversified learning experiences to the students. A 75% attendance and submission of logbook maintained during elective postings is required for eligibility to appear in the final MBBS examination.<sup>[1]</sup>

The Elective postings were aimed to provide the learner with opportunities for diverse learning experiences in basic sciences, laboratory sciences and clinical sciences for guided patient care and immersive learning in speciality of choice as well as to do research/community projects that will stimulate enquiry, self-directed, experiential learning and lateral thinking.<sup>[1]</sup>

In February 2023, for the first time across the nation, the institutes have planned and implemented one month of Electives for MBBS students of batch 2019.Hence, it's important to evaluate the program by obtaining feedback and suggestions from all the stakeholders specially the students. So, the current study was planned with an aim to assess the perception and attitude of the students who have undergone the elective postings for the first time. This will not only help in evaluating the elective program but also help in modifying and improving the program for future batches.

#### MATERIAL AND METHODS

The Competency Based Medical Education curriculum had the provision for elective postings at the commencement of 3rd MBBS Phase II for diversified immersive learning in various specialties of

basic, laboratory and clinical sciences. As per the guidelines of National Medical Commission, electives postings were planned by our institute with the help of all the departments under guidance of Dean, Medical Education Unit (MEU) and Curriculum Committee (CC);for the 2019 batch (1st batch of CBME). There were 260 students in total who had undergone elective postings.

The duration of electives was for one month,15 days each for basic /laboratory science (Block 1) and clinical/super specialty discipline (Block 2) respectively, on rotation basis as per student's choice. Regular clinical postings were to be continued during block 1 postings as per NMC guidelines, so students were divided in two batches:130 in each batch according to roll number. Batch A (Roll No 1- 130) was given block 1 posting first with continued clinical postings and Batch B (131-260) was given block 2 posting first and then both batches were rotated after 15 days.

It was challenging to allot elective of choice to all 260 students hence the institute decided to allot electives as per student's choice based on their 2<sup>nd</sup> MBBS university examination merit in each batch.

The institute offered 24 modules comprising of 212 seats for Block 1 (basic /laboratory science) and 41 modules comprising of 245 seats for Block 2 postings (Clinical/super specialty subjects), in each batch of 130 students. This was done to ensure that enough opportunities are available to students in each batch even when merit-based allocation was done in a government medical college for a batch with strength more than of 250 students. The structured modules were prepared by faculty members trained in medical education technologies in various department as per the recommendations laid in "Elective Module" with support of MEU and CC members. It included various aspects like objectives, prerequisite, learning resources, list of activities for student participation, logbook and assessment plan for the particular elective proposed by the respective departments. For each module, one preceptor was nominated from the respective department who facilitated and monitored the execution of electives in the department.

The feedback of students regarding the elective postings was taken by prevalidated anonymous feedback questionnaire on a Google form after completion of elective postings. The questionnaire had four sections. The first section included general information about the

questionnaire and consent for participation which was voluntary. The section 2 had eight closed ended questions and one open ended question regarding overall feedback. The section 2, pertaining to overall feedback for electives, had questions regarding usefulness of orientation session prior to electives distribution, equitability of merit-based allocation system, adequacy of options provided for block 1 and block 2 postings and rest questions were mainly related to utility of electives.

The questions for section 3 and 4, were similar, assessing feedback for Block 1 and Block 2, respectively. They were related to usefulness of electives to provide adequate opportunities for hands on experience, whether it helped in learning additional skill, whether assessment was done and objectives were met at the end of postings, whether they were satisfied with elective postings and reasons if it didn't meet their expectations. Section 3 and 4 had eight closed ended question and one open ended question regarding feedback specifically for Block 1 and block 2 postings respectively. Most of the closed ended questions were on 5-point likert scale, except one regarding the reasons if electives didn't meet expectations, which was multiple choice type. One question was regarding rating overall learning experience on a scale of 1- 10, one being lowest and 10 is highest enriching learning experience. The open-ended question was about suggestions for electives to be added and explored for upcoming batches.

### Statistical Analysis

The information received was retrieved in Excel format and analysis done by SPSS version 24 and paired t test was applied. The perception analysis taken on 5-point Likert scale, was presented as percentage of responses.

### RESULTS

Out of 260 students who were given elective postings, 196 students responded to the google based feedback form. The results will be separately discussed for overall perceptions, block 1 and block 2 perceptions.

#### Overall Perceptions

There is an overall satisfaction amongst students with aspects like orientation program of electives, curriculum flexibility to choose postings, opportunities for individualized learning. Agreement regarding availability of option in basic science (60.2%) were less compared to availability of options in clinical science (75.5%). 25% students disagreed for merit-based allocation system. (Fig 1)

#### Perception for Block 1(Basic and Laboratory Sciences)

The majority of respondents expressed agreement that electives provided adequate opportunities for hands-on work and in-depth learning experiences (63.3%), acquired additional skills (65.4%), acknowledged that assessments were conducted during their elective experiences (78.6%), felt that the objectives of the module were largely met by the end of elective postings (76.5%) and expressed that block 1 elective postings met their expectations (61.2%). (Fig 2)

38.8 % students who felt that Block 1 postings didn't meet their expectations or were not sure about it , gave diverse reasons for the same like lack of exposure (16.3%), lack of opportunities (15.3%), lack of guidance (7.1%), lack of interest (6.1%), and issues related to the number of students (8.7%) and allotted time (4.1%). 96.4% students gave feedback that they had training under an identified preceptor. 78.6% students gave rating of six and above with average rating of 6.9 on a scale of 1-10. In summary, the survey indicates overall positive perceptions among students regarding their block 1 elective experiences. However, there were some neutral responses, suggesting room for improvement or varied experiences.

#### Perception for Block 2(Clinical Sciences)

The majority of respondents expressed agreement that their Block 2 elective postings provided adequate hands-on work and in-depth learning experiences (78.6%), acquired additional skills and acknowledged that assessments were conducted during their Block 2 elective experiences (79.6%), felt that the objectives of the Block 2 elective module were largely met by the end (80.6%) and expressed that Block 2 elective postings met their expectations (78.6%).(Fig 3)

Most common reasons for block 2 postings not meeting students' expectations (21.4% participants) were lack of exposure (9.2%) and opportunities (12.8%). Other reasons were lack of guidance (6.1%), lack of interest (0.5%) and issues related to the number of

students (4.1%) and allotted time (5.6%). 96.4% students gave feedback that they had training under an identified preceptor .89.8 % students gave rating of six and above with average rating of 8 on a scale of 1-10 .In summary, the survey indicates overall positive perceptions among students regarding their block 2 elective experiences.

Students perceived that elective postings in clinical science subjects provided significantly higher opportunities for hands-on work and in-depth learning experiences (t-test: 4.69, p-value <0.001), higher acquisition of additional skills (t-test: 4.75, p-value <0.001), higher achievement of module's objectives (t-test: 2.88, p-value: 0.004) compared to basic and laboratory science postings. Clinical postings were more likely to meet students' expectations compared to basic /laboratory science postings (t-test: 4.61, p-value <0.001) and overall rating was also statistically significant. However, there was no significant difference in the assessment aspect between the two types of elective postings. (Table I)

The students gave variable suggestions for elective posting (31.6%) whereas other mentioned "No change" or "OK" (13.8%) or didn't respond (54.6 %). The students' suggestions related to leaning were to have more clinical implications/practical knowledge-based learning/ hands on training/interactive sessions and specify objectives in orientation /beginning of elective postings. There was no consensus for duration of electives. Some students suggested to increase number of topics, not to keep clinical postings during Block 1 electives and to have more preceptor per student/group of students. (Table 2)

Some suggestions by students for electives to be added to block 1 were Genetics in anatomy, yoga/ sports in physiology, onco pathology and to increase seats for pathology. The suggestions for elective modules to be added to block 2 were trauma, critical care management, chemotherapy, radiotherapy, etc

### DISCUSSION

The introduction of Competency based Medical Education (CBME), brought new avenues to the medical curriculum like foundation course, early clinical exposure, skill training and electives. Evaluating the implementation of these newer aspects of the curriculum is important to bring modifications in future execution policy. "Elective" though a newer concept in India, it is an age-old tradition in western world. The changing gears of this competency-based education, required lot of planning and teamwork of Medical Education Unit (MEU) and curriculum committee for sensitization and training of faculties, development of elective modules /logbook in subject wise manner, development of allocation procedure of electives to students, orientation of students and many more. The researchers have proposed step-by-step plan for designing and implementation of electives program with a timeline and have also highlighted long term challenges of this program.<sup>[2]</sup>

The evaluation of electives postings as done in this study is necessary to know the actual impact and provides feedback to make it a successful program.

In our study, there was high level of global satisfaction regarding elective postings, starting from the orientation program to the overall experience of elective postings, both Block 1 and 2, in respect to benefits availed to them in learning additional skills and opportunities for hands on work. This suggests that "Elective" is looked upon by students as an opportunity for in depth learning in specific subject. In other study too, students perceived electives as a valuable and highly regarded experience.<sup>[3]</sup> It stimulates students' self-motivation by providing learning condition with optimal challenges to break the monotony of medical syllabus which students, especially of high calibre, find boring.<sup>[4]</sup>

The disagreement of about one- fourth students regarding merit-based allocation system, reveals the fact that though this may be a practical approach, especially for the institute like us with uptake of 250 students annually, still it may be an unfair option for students with lower ranks, making them to choose from limited options left over. This calls for allowing students to pursue electives in field of their choice at other local/regional centres. Similar study done in India, also found that students enjoy the elective postings and learn more if they get elective of their choice.<sup>[5]</sup> There are past reports from western world where students choose to do their elective in rural area of developing country at their own cost.<sup>[6]</sup> This will be the future in India soon, where students may outsource their elective training on their own, in subject

of their interest at other places raising concerns for supervision.

Students perceived that elective posting in clinical subjects provided significantly higher opportunities for hands-on work and in-depth learning experiences, higher acquisition of additional skills, higher achievement of module's objectives compared to basic and laboratory science postings. The likely reason regarding more positive predilections for elective posting in clinical subjects may be due to the fact that students get more exposure to real time case scenarios during clinical postings which students look forward to when they have embarked on journey to become doctors!

The varied suggestions given by students regarding enhancing learning experience, time of elective postings and implementation related concerns; require further detailed interrogation in form of focussed group discussions or subject specific module wise feedback analysis. This will help in making necessary modifications to overall improve learning experience of students. Other researchers have also stressed that electives feedback is crucial in order to maximize educational, personal and professional development through electives and organizations will have to adopt student centred approach in implementation of electives.<sup>[7]</sup> One valid point suggested by students, about not to keep clinical rotations during block 1 postings, is well accepted and NMC has revised this in guidelines released in August 2023 and September 2024.

Electives can be a major decision-making step-in career of medical undergraduate students. Departments and institutes need to audit their elective implementation policy to help their students make best out of this opportunity.

### Strengths and Limitations

To best of our knowledge, the evaluation of elective perception for the first batch of CBME is done in a government setup, for the first time. The response rate was good.

The major limitation of this study was that the elective postings were to be completed for the whole batch in a stipulated time frame and also due to high strength of students, opportunity to choose elective was given on merit basis. Hence low merit students in each batch may have to compromise on choice of elective

**Table I. Difference Between Likert Scale Score of Perception of Students in Block 1 and 2 Elective Postings.**

| Sr no | Item   | Elective postings | Mean | SD   | t-test | p value |
|-------|--|-------------------|------|------|--------|---------|
| 1     | Provided adequate opportunities for hands-on work, in-depth learning experience. | Block 1           | 3.16 | 0.79 | 4.69   | <0.001  |
|       |  | Block 2           | 3.98 | 0.77 |        |         |
| 2     | Additional skills were learned   | Block 1           | 3.66 | 0.85 | 4.75   | <0.001  |
|       |  | Block 2           | 4.06 | 0.77 |        |         |
| 3     | Assessment was done  | Block 1           | 3.90 | 0.78 | 1.14   | 0.2     |
|       |  | Block 2           | 3.99 | 0.80 |        |         |
| 4     | The objectives of the module were largely met by the end                         | Block 1           | 3.84 | 0.77 | 2.88   | 0.004   |
|       |  | Block 2           | 4.06 | 0.76 |        |         |
| 5     | Electives met my expectations.   | Block 1           | 3.62 | 0.89 | 4.61   | <0.001  |
|       |  | Block 2           | 4.02 | 0.80 |        |         |
| 6     | Rating on scale of 1-10  | Block 1           | 6.92 | 1.87 | 5.74   | <0.01   |
|       |  | Block 2           | 7.96 | 1.71 |        |         |

**Table II. Suggestions by Students to Enhance Learning Experience in Elective Posting:**

|                |   |
|----------------|---|
| Learning       | <ul style="list-style-type: none"> <li>Needs of hands-on training (3)</li> <li>Clinical applications/Practical knowledge (13)</li> <li>Objective based learning (6)</li> <li>Increase interactive sessions (4)</li> </ul> |
| Time           | <ul style="list-style-type: none"> <li>Reduce time and duration for posting (5)</li> <li>Longer time (6)</li> </ul>   |
| Administration | <ul style="list-style-type: none"> <li>No clinical postings during Block 1(5)</li> <li>Need of increase topics (12)</li> <li>Issue in signature of logbook (4)</li> <li>Increase faculty time/ ratio (4)</li> </ul>       |

(): Indicate number of responses

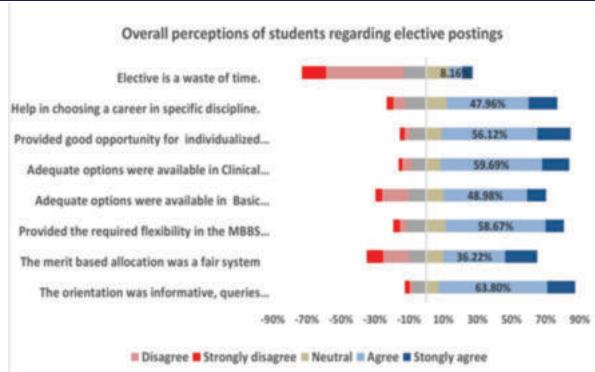


Fig 1. Distribution of Likert scale score about overall perceptions of students regarding elective postings (N=190)

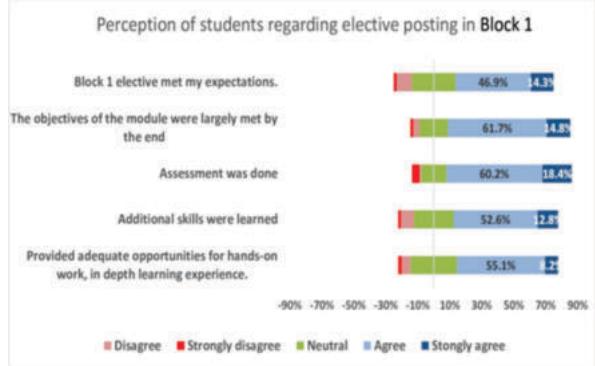


Fig 2. Distribution of Likert scale score about perceptions of students regarding basic and laboratory sciences (Block 1) elective postings (N=190)

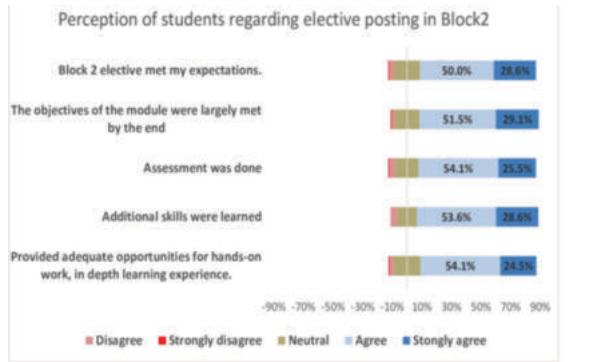


Fig 3. Distribution of Likert scale score about perceptions of students regarding clinical sciences (Block 2) elective postings (N=190)

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