

Students View on Medical Curriculum

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Abstract

The Indian medical education system which is believed to be one of the largest in the world consists of 479 medical colleges which produces 60,845 doctors per year. Student's evaluation of any teaching curriculum is a firmly recommended part of the teaching-learning process and is aimed at achieving the desired objectives of producing competent doctors. This cross-sectional study was conducted using a pre-designed questionnaire on 100 medical students studying at undergraduate level in NEIGRIHMS. Primary objective: To study the views of the students regarding the existing medical curriculum. Secondary objective: Whether the present mode of teaching covers all the aspects of teaching or not. Our study found that 74% of third-year and 74% of final year MBBS students were satisfied with the current MBBS curriculum. Significant number of students also felt that ward rounds should commence from first year MBBS with students interested to participate in other activities during the MBBS curriculum. These inputs can be considered for making amendments in the MBBS curriculum to create a student-centric environment.

Keywords: Medical Curriculum, Questionnaire, Students View

1. Introduction

The Indian medical education system which is believed to be one of the largest in the world consists of 479 medical colleges which produces 60,845 doctors per year¹. Almost one third of these doctors migrate to the US and other countries as a result of which the quality of doctors being produced have an impact on the entire world.

The Medical Council of India (MCI) regulates the standards of medical education and recognition of medical qualifications in India. The number of medical colleges has increased steadily during the years after independence and hence, the number of doctors too has been increasing at the same rate.

It has been found that though the Indian medical graduates generally possess reasonably sound knowledge of medical science, they are often found deficient in the performance of clinical skills and problem-solving which form the core of clinical competence². In other studies, it has also been found that the teaching-learning environment needs to be more congenial, there should be creation of more support system for stress management of the students and also more importance needs to be given for medical ethics as well as medical research³. Students in some developing countries were dissatisfied with the quality of teaching in the university⁴.

Thus, student's evaluation of any teaching curriculum is a firmly recommended part of the teaching-learning process and is aimed at achieving the desired objectives.

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Reviewing the teaching methods on getting feedback from the students and the modification of methodologies accordingly is very important for improvements in undergraduate medical teaching. Such a study has never been conducted earlier, particularly in this institute; thus, the adequacy of the teaching methods remains unknown.

The outcome of the study would serve as a guide to the medical education fraternity regarding the present medical curriculum being followed, highlighting the level of satisfaction of the students as well as the key points where it needs to be reviewed. As not many such studies have been done in this part of the country, the outcome will be crucial to bring about necessary changes in the curriculum which will definitely have an impact on the quality of the doctors of tomorrow.

1.1 Aims and Objectives

Primary objective: To study the views of the students regarding the existing medical curriculum.

Secondary objective: Whether the present mode of teaching covers all the aspects of teaching or not.

2. Methodology

2.1 Study Design

Cross sectional study.

2.2 Study Participants

- Inclusion criteria: The study was conducted on 100 medical students studying at undergraduate level in NEIGRIHMS.
- Exclusion criteria: Interns and Post-graduate students and those not willing to participate were excluded from the study.
- Withdrawal criteria, if any: Participant was allowed to withdraw from the study if he/she wanted to.

2.3 Sampling

Consecutive sampling was done among all the students currently pursuing Undergraduate course in NEIGRIHMS in the 3rd year and final year MBBS (Bachelor of Medicine, Bachelor of Surgery).

2.4 Study Procedure

The study tool used for the study was a pre-designed questionnaire. The questionnaire was largely based on the graduation survey in the United States by the American Medical Colleges (AAMC) and accordingly modified to the specifications of the Undergraduate programme followed here. We decided to adopt this questionnaire mainly because of its comprehensiveness and similarities to the system of education that it evaluates⁵. All questions were close ended and contain Likert-scale-type questions (strongly agree, agree, disagree, strongly disagree) measuring student's perceptions and satisfactions. Questionnaires were distributed among all the participants of the study. The identity of the students has been kept anonymous. The respondents were requested to fill up the questionnaire and hand them back. The data collected were tabulated and analysed accordingly.

For tabulation of data, Microsoft excel (2017) was used.

All statistical analysis was done using IBM SPSS Statistics 19.0

3. Results

In this study there were 100 participants, among them 50 were from 3rd year and 50 were from final year. The responses were grouped together for analysis, strongly agree and agree considered as "agree" and disagree and strongly disagree as "disagree", as few respondents used strongly agree and strongly disagree options. In our

Table 1. Response to various teaching aspects

Teaching aspect	% of 3 rd year students in 'agree' (n=50)	% of final year student in 'agree' (n=50)	Chi-square value	P-value
Pre-clinical course had sufficient illustrations of clinical relevance	58%	70%	1.563	0.211

Table 1 Continued

Self-study is encouraged by the class taken by teacher	88%	78%	1.772	0.183
Dealing of particular system according to the subject taught	92%	88%	0.111 (yates correction)	0.739
Integrated teaching is beneficial in medical education	98%	94%	0.260 (yates correction)	0.610
Faculty encourage student to ask question	92%	84%	0.852 (yates correction)	0.356
Class encouraged to look for more information on topics taught	76%	78%	0.057	0.812
Use of comprehensible language by teacher	96%	92%	0.177 (yates correction)	0.674
Use of audio-visual aids in class	82%	62%	4.960	0.026
Topics discussed by teachers included in the syllabus	92%	74%	5.741	0.033
Discussed topics asked in post-graduate exam	64%	60%	0.170	0.680
Encourage to attend class	62%	52%	1.02	0.312
Teacher grades fairly	82%	72%	1.412	0.235
Text book match teaching content	80%	68%	1.871	0.171
Learning improved thinking mode and analytical ability	86%	88%	0.088	0.766

Table 2. Skill Development

Like to participate in other activities during MBBS curriculum.	No. of 3 rd year student (N=50)	No. of final year student (N=50)	Degrees of freedom	Chi square	p-value
Yes	49	40	1	8.27	0.004
No	1	10			
Type of activities liking to participate.					

Table 2 Continued

Independent study project	3	4	6	18.1	0.006
Research project with faculty members	12	4			
Educating about carrier in health	4	3			
Providing health education	13	4			
Learn language	11	14			
Experience in a free clinic for an underserved population	15	22			
No activity	1	10			
OSCE labs should be included in MBBS curriculum					
Yes	49	48	1	0.344 with Yates correction	0.558
No	1	2			
OSCE should be used during examination					
Yes	44	37	1	3.18	0.074
No	6	13			
Clinical posting should be started from 1st year of MBBS					
Yes	16	8	1	3.51	0.061
No	34	42			
Ward rounds from 1st year					
Yes	19	8	1	6.14	0.013
No	31	42			
Patient care services from 1st year					
Yes	39	36	1	0.480	0.488
No	11	14			

Table 2 Continued

Teaching of clinical documentation from 1st year					
Yes	46	47	1	0.154 with Yates correction	0.695
No	4	3			
Minor procedures from 1st year					
Yes	40	40	1	0.00	1
No	10	10			
OT posting from 1st year					
Yes	17	13	1	0.762	0.382
No	33	37			
Emergency from 2nd semester					
Yes	43	47	1	1.00	0.317
No	7	3			

study it was found that 74% of 3rd year MBBS and 74% of final year MBBS students were satisfied with the MBBS curriculum. Table 1 & 2 depict the findings of the study. Table 1 shows the various questions asked in relation to teaching and its corresponding responses. Table 2 shows skill development questions including OSCE (Objective Structured Clinical Examination), OT (Operation Theatre) posting etc.

4. Discussion

In our study, it was found that 74% of the 3rd year students and 74% of final year students were satisfied with medical education. The remaining 26% students of both the batches were reportedly not satisfied with their medical education. This is in contrast to the finding in a study conducted by Manzar B, Manzar N. It was found that among 375 medical students, most of the students (57.2%) were dissatisfied with the quality of teaching in the university. Fifty-seven percent of the participants believed that the current standards of their institute were

not at par with those of international medical universities. Most of the students (66.1%) wanted the university to conduct career planning seminars to help them plan their career⁴.

In another study conducted by PG Pai *et al.*, among all the undergraduate medical students of the college, it was found that the first-year students were found to be more satisfied with the learning environment compared to the other semester students. However, on the positive side, clinical batch students felt that the teaching and learning strategies which worked for them during the pre-clinical phase continued to work for them and also the learning environment seemed to make them more confident with respect to their perception regarding passing the course. They acknowledged that the course organizers were knowledgeable, well-focused and prompt in providing feedback to the students⁶.

In our study the students felt that the pre-clinical coursework had sufficient illustrations (58% of third year students, 70% of final year students), encouragement for self-study (80% of third year students, 78% of final

year students), encouragement to ask questions/doubts without ridicule (92% of third year students, 84% of final year students), encouragement to look for more information (76% of third year students, 78% of final year students).

In a study conducted by SM Naik among 282 undergraduate medical students to assess the student's perception of the learning environment, it was found that the students were of the view that teachers were teaching more of the facts and figures in the classrooms. Students were also of the view that teachers ridicule them and they did not feel the existence of good support system for stressed students⁷.

In a study conducted by Kiran H *et al.*, among the final year MBBS and the interns of their medical college, it was found that the teachers are knowledgeable but are authoritarian, often get angry in the class and ridicule the students; the teaching over-emphasizes factual learning and is teacher-centered; Support system for students who get stressed is not adequate³.

While in the UK, a study was conducted by Lempp H, where it was found that although there was an absence of a proper and consistent system of monitoring, there was adequate encouragement and motivation for the students. However, there was lack of commitment to teaching as well as it involved humiliation of students⁸. While in another study by Dunne F *et al.*, which was done in a large UK medical school among all its students, it was found that there was lack of a support system for stressed students, school time-tabling, feedback from teachers and memorisation of facts. However, clinical students perceived the environment to be significantly more positive than preclinical students⁹.

In our study 98% of third year students and 94% of final year students felt that integrated teaching is beneficial in medical education with 96% of 3rd year students and 92% of final year students of the opinion that comprehensible language was used in the class. Eighty-two percent of 3rd years and only 62% of the final year students were of the opinion that audio-visual aids were used in class. Among the 3rd years, 92% and the final years, 74% felt that the topics discussed by the teachers were included in the syllabus. Sixty four percent of 3rd years and 60% of final years agreed that teachers discussed topics asked in PG entrance exams. Of the 3rd years, 62% and of the final years, 52% of the students report that they were encouraged to

attend classes. Eighty-two percent of the 3rd years and 72% of the final years report that the teachers grade fairly. Of the 3rd years, 80% students and of the final years only 68% reported that the textbooks can match teaching content. Eighty-six percent of 3rd years and 88% of final years felt that learning had improved their analytical and thinking ability.

For the next section of questions based on skill development, 98% of 3rd year students and 80% of final year's students reported that they would like to participate in other activities during MBBS curriculum. Among the activities, majority of the students from both the years opted to get experience in a free clinic for an underserved population, followed by 3rd years opting to provide health education to the population and the final years opting to learn another language for better communication. Ninety-eight percent of third years and 96% of final year students feel that OSCE labs should be included in the curriculum. Meanwhile, 88% of the third years feel that OSCE should be included in exams while 74% of final years feel that OSCE should be included in the exams.

In a study conducted among both students and teachers in Dhaka, Bangladesh, by Ahmed A *et al.*, majority of the students (84%) but minority of teachers opined that there was need of card completion examination as in course assessment system¹⁰.

Among the third-year students, 38% of the students whereas from the final year students only 16% felt that clinical postings should be started from 1st year onwards. Meanwhile, 78% of the third-year students and 72% of final students felt that various patient care services like catheter insertion, injection practices etc., should be taught from 1st year onwards. These findings are in correlation with the study conducted by Verma K *et al.*, where questionnaires were administered to the faculty, recent graduates and patients, it has been found that though the Indian medical graduates generally possess reasonably sound knowledge of medical science, they are often found deficient in the performance of clinical skills and problem-solving which form the core of clinical competence. The main findings were inadequate emphasis on practical skills (including communication), insufficient coverage of common diseases, and neglect of behavioural, social and ethical aspects in the curriculum².

Ninety-two percent of the third years and 94% of the final year students felt that clinical documentation

like filling up forms etc should be taught during MBBS. And 80% of both 3rd years and final years felt that minor procedures like drawing blood, dressing etc should be taught in first year.

Only 34% of third years and 26% of final years felt that OT posting should start from 1st year. However, according to 86% of third years and 94% of final years, emergency lifesaving skills should be taught in 2nd semester (1st year) itself. These findings reflect if the graduates are prepared for medical work or not. Goldacre M *et al.*, found that among the graduates of two batches from the medical school, 50% of the students from each batch felt they were prepared for medical work¹¹.

5. Conclusion

Our study found that 74% of third-year MBBS and 74% of final year MBBS students were satisfied with the current MBBS curriculum. Significant number of students found that audio-visual aids were used in the curriculum for teaching and that the topics discussed in the class were included in the subject. The students also felt that ward rounds should commence from first year MBBS with students interested to participate in other activities during the MBBS curriculum. These inputs can be considered for making amendments in the MBBS curriculum so that they are student-centric and to facilitate better learning. The modern evidence-based medicine is not just for treatment but the way it is taught is also of paramount importance. Even though the sample size of the study is small, such studies are important in improving the MBBS curriculum and to cater to student-specific needs. We believe our study will facilitate for future studies in other institutes.

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