

Perceptions and suggestions of 2nd professional MBBS students about their teaching and learning process: An analytical study

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Abstract : Objectives : A questionnaire based analytical study was done to know the perceptions and suggestions of 2nd professional medical students about various aspects of their teaching and use them for improvement. **Material & Methods :** Study was conducted on 2nd professional students (n=150) using a structured validated questionnaire after approval from the Institutional Ethical Committee. **Results :** Students found pharmacology and pathology most relevant but difficult subjects. They found it difficult to synchronize and integrate the different subjects. They found tutorials and group discussions more useful than lectures and seminars and suggested to cut short the duration of the lecture. They advocated the judicious use of power point along with the conventional method of teaching. They wanted some multiple choice questions to be included in the tests and in the final exams. They wanted some sessions on career counseling and wished the effective implementation of the mentoring system. **Conclusion:** The suggestions obtained from the students, if addressed effectively, can improve their learning and produce better health care professionals.

Key-words: Medical education, Feedback, Problem based learning (PBL), Role play

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INTRODUCTION: The teaching learning process in 2nd professional is crucial; because this is the time the students are taught about patho-physiological concepts of diseases and their treatment and come across patients in the clinics. In short, learning in the 2nd professional acts as a foundation on which a process of becoming a good professional is resting. Moreover, the curriculum and trends in medical education are changing rapidly.

Needs of students are changing and role of educators is being redefined at the same time. One has to keep pace with the ever changing needs of the students and changing trends. So, if the needs of the students are considered while carrying out teaching, the process of teaching-learning can be made effective. So, we tried to find out the gaps, if any, by taking students' feedback, in the 2nd professional teaching and sought suggestions from

them and use them for strengthening the foundation.

AIM & OBJECTIVES: This questionnaire based study was done to determine the perceptions of 2nd professional medical students about various aspects of their teaching and learning, in order to make teaching more effective and enable students learn better. Suggestions in the form of responses to open ended questions were also received from them.

MATERIAL & METHODS: A structured validated questionnaire was developed consisting of 15 questions having 3-5 options with a space for suggestions/remarks. After approval from the Institutional Ethics Committee (IEC) and Medical Education Unit (MEU) the questionnaire was administered to the 2nd professional students

(n=150) who were due to appear in the University examinations and had completed their syllabus in all the subjects studying at Maharishi Markandeshwar Institute of Medical Sciences & Research. The students were asked to be truthful and unbiased in answering the questions and give remarks and suggestions in the related questions. They were not asked to reveal their identities, in order to make them express themselves freely.

RESULTS: Out of total 150 students, 111 were able to complete the survey. Out of them 57 were males and 54 females and the mean age of the students was 20.3 ± 0.94 years. 43% of the students found pathology to be the most interesting subject followed by pharmacology (34%), Forensic medicine (17%) and Microbiology least interesting (6%). Majority of the students wrote pharmacology (50%) and pathology (36%) to be most difficult subjects, due to the subjects being volatile and too much to memorize followed by Microbiology(13%) and Forensic medicine (1%). Pharmacology and pathology were considered the most relevant and useful subjects in further professionals and future by 60% and 36% of the students respectively, followed by Forensic medicine (2%) and Microbiology (2%) only, because they felt that these subjects help them understand the patho-physiological aspects and treatment options of various diseases.

About the usefulness of various teaching sessions they opined that lectures and seminars are of average usefulness, where as revision classes and tutorials as most useful. They suggested that the students should be divided into smaller batches for the lectures also, as done for the tutorials and group discussions and if possible duration of the lectures should be cut short.

The level of satisfaction of 86-87% students was good about teaching methodology and teaching/training as a whole on the 5 points scale from very good to bad, however, with a considerable scope of improvement.

More than three fourth of the students disagreed on the option of using chalk and board or power point (PPT) alone by the teachers, rather 95% students suggested the judicious use of audiovisual aids along with the conventional methods , so that the PPT should complement the teaching methodology (lecture delivery).

Understanding of subjects was considered as the most important by 97% of the students for achieving their career goals and objectives followed by preparing for Pre PG (Postgraduate) entrance exam (83%) and scores in yearly/monthly exams (75%). They wrote that understanding of the subjects will automatically help them meeting other objectives. 90% of the students agreed to the point that feedback of students is important about teacher/teaching and that can effectively be done using a drop box, feed back forms or one to one and group interactions.

As a reply to the question of whether the present teaching/training system in the 2nd professional will enable them prepare for Pre PG entrance examination, only 24% of the students wrote 'yes' and 59% wrote 'don't know' Because they felt that they were not exposed to the multiple choice questions and they should be included in all the tests. Some of them suggested a single nationalized evaluation test for all the professional years, so that they can assess themselves at every stage of their course and come to know where they stand. Most of the students were satisfied and happy with the preparatory holidays given before the final exams.

Majority (80%) agreed on the great role of computer and technology for their studies. Many students (91%) used internet from everyday to once a week mostly for emails and networking sites, while 54% students use it for academics and news and general awareness as well. Many of them found internet to be very easy but confusing source of information, because most of the times they were not able to judge which piece of information was relevant, at the same time, many found online books and various academic links very interesting, useful and time saving.

77% of the students were not aware about the mentoring program in their institution and those who were aware did not know much about this. But, when they were briefed about this, almost everyone believed it to be of great help and usefulness. 91% of the students would want to pursue specialization after MBBS, out of them 98% chose clinical subjects when asked about the branch. 69% of the students did not know or were not so confident of becoming a good professional with the current training system due to lack of guidance and mentoring during the whole MBBS course. That is why they wanted a few sessions on career counseling during the 2nd professional also. Although considered quite lengthy and needing a lot of commitment by most of the students, yet 81% of the students did not want to change their field after 10+2 if given a chance, because they considered it a noble profession and a chance to serve the society.

DISCUSSION: Pathology and Pharmacology were considered interesting and useful but most difficult subjects by the students of 2nd professional. The problems of memorizing and volatility of the subjects faced by the students can be tackled by making them learn by putting them in a particular situation and giving them a task as a source of learning, comparable to an actual task that he may

face in his future professional life, addressed to as "**Problem based learning**" (PBL)¹. PBL is contextualized and is learner centered rather than being problem solving and teacher centered. Studies have shown PBL to be effective in comparison with lecture based learning (LBL)^{2,3,4}. PBL also conforms to the principles of adult learning and cognitive science⁴.

Another problem faced by the students is the lapse of concentration during the lectures, which are of 1 hour duration, they wanted the lectures duration to be cut short to 30 minutes. Studies have shown that attention span of an adult learner is 18-20 minutes after that there is a lapse⁵. The problem can also be very well taken care of with **interactive or activity based sessions**. A large body of literature tells us that when the goal is to foster higher level cognitive or affective learning, teaching methods which encourage student activity and involvement are preferable to more passive methods. This is reflected in our results also where students have found tutorials and revision classes more useful than lectures and the results are consistent with the results of a study carried out by Badyal et al⁶. Apart from this '**Role Play**' exercises can be used to enhance students participation and hence learning. Studies have found the usefulness of this exercise in medical education⁷ and acquisition of communication skills by the students⁸. However, role play is a powerful intervention to be used with caution and to maximum impact⁹.

In our results students found it difficult to correlate the related concepts and integrate the different subjects. However when they were made aware about **integrated method** of teaching, majority felt that the system could be useful and time saving, consistent with the results of study carried out by Kate et al¹⁰. Studies have shown that it was well received by the students and faculty as well^{10,11} and found to be effective to enhance the skill of clinico-

pathological correlation and help to improve the cognitive and psychomotor domains of the students.¹⁰

Recent and rapid advances in communication and information technology (C&IT) together with the pervasion of the worldwide web into everyday life have offered many changes and challenges in medical education⁴. Our Institute promotes the use of C&IT in imparting education to the students, however the challenge and responsibility remains with the teachers to use it effectively.

Inclusion of **multiple choice questions** (MCQs) is desired by the participants of our study. National consultative meeting on review of pharmacology curriculum has also suggested the inclusion of MCQs in the written examination; 20% of the total marks^{11,12}. MCQs if prepared carefully following the guidelines¹³ can be reliable and useful for assessment.

In our results students felt feedback about the teacher/teaching to be important. **Feedback** (bilateral) is an essential component of medical education and a powerful tool which if used correctly can give wonderful results, however there are certain recommended techniques which can be used for this to be effective and useful¹³.

The role of mentor and **mentoring** can also not be under-estimated; our students wished they had this kind of system in place. A study carried out by Fischer et al showed the positive influence of mentoring on career plans, academic and research related activities and promotion of the mentees¹⁴. Our students wanted a few sessions on **career counseling**, which came out as a suggestion on discussing the various career options after MBBS and not many were aware of the field of research. So they felt that if they are counseled during their studies about making the right decisions for their careers would help them a great deal and improve

the chances of optimal career growth. A mentor can take care of various such issues related to the students e.g. choosing a subject of specialty or field after MBBS, research activities during and after MBBS and many other

CONCLUSION: If the teaching is done keeping in view the needs of the students, it can be made most effective. And to know the needs, students' feedback is a useful tool.

RECOMMENDATIONS & SUGGESTIONS: Change is a universal phenomenon and medical education is no exception in this regard, which is facing a paradigm shift from what it was 1-2 decades back, due to multiple reasons. Traditionally teachers have played the active role and the students as passive listeners, but now the focus is shifting from the teacher centered to learner oriented approach.

There should be an increased emphasis on problem based, contextual and self directed learning. Role play exercises and integration of the subjects can be incorporated in the curriculum. For this, the role of an educator, medical education units (MEUs) and education system is really important but challenging in this. One should keep exploring the innovations and modify his approach of teaching, keeping in view the needs of his students. However, such pedagogic shift from traditional approach to a need-based approach requires a fundamental change of the roles and commitments of educators, planners and policymakers.

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