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Indian Medical Graduate – Expectations and Reality

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MEDICAL CAMPUS, PGIMS, ROHTAK

ABSTRACT

For a country like India, a competent and skillful medical graduate is need of the hour. Indian medical colleges are often criticized are producing graduates who are not well equipped to tackle the health care needs of the society. Aim of whole learning process is to develop all 3 domains i.e. cognitive, psychomotor and affect. But sadly in Indian medical Colleges only cognitive domain is developed and rest are neglected.

Among many problems highlighted majority are increased student teacher ratio, overburdened medical teachers, obsolete methods of assessment and many more. A revolutionary change is required in all above fields to deal with crisis of poor medical education.

INTRODUCTION

After four and half years of study and one year of internship, an Indian medical graduate (IMG) is expected to have knowledge and clinical skills to treat a patient in community. But the situation of medical education in India is still having major loopholes. An Indian Medical Graduate is often criticized regarding his capabilities in handling health care needs of community. A country like India with exploding population and lack of specialists, a competent and skillful medical graduate is need of hour. However prevailing system of medical education had failed miserably in achieving the goal.[1]

EXPECTATIONS FROM AN INDIAN MEDICAL GRADUATE

Medical council of India (MCI) considers an IMG should undertake the responsibilities of a physician of first contact who is capable of looking after the preventive, curative & rehabilitative aspect of medicine. His training should aim to provide an educational experience of the essentials required for health care in our country and should be able to meet internationally acceptable standards. There must be enough experiences to be provided for self learning. He should be capable of functioning independently in both urban or rural environment. He shall endeavour to give emphasis on fundamental aspects of the subjects taught and on common problems of health and disease avoiding unnecessary detail of specialization. He should become exemplary citizen by observation of medical ethics and fulfilling social and professional obligations, so as to respond to national aspirations.[2]

Following MCI guidelines, medical colleges in India have adopted a pattern of one year of basic sciences, one and half years of para-clinical sciences and two years devoted entirely to clinical subjects. During one year of internship period he is exposed to field practice areas and rural training to functional efficiently under such settings.[2,3]

HARSH REALITY OF AN INDIAN MEDICAL GRADUATE

Before going into depth of reality, let's understand the basics of learning process. Bloom et al in 1956 identified 3 domains of learning –

- Cognitive: mental skills (knowledge)
- Affective: growth in feelings or emotional areas (attitude or self)
- Psychomotor: manual or physical skills (skills)

This taxonomy of learning behaviors may be thought of as "the goals of the learning process." That is, after a learning episode, the learner should

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have acquired a new skill, knowledge, and/or attitude.[4]

Applying above principles we realize that learning in medical colleges is primarily focused on cognitive domain and partially on psychomotor domain. Affective domain is most neglected during the whole duration of training process. Starting from entry into medical college, the defective methodology involves only memory based multiple choice questions (MCQ). Every year students are assessed through a theory paper and a practical examination but present race for admission into a post graduate course (MD/MS) forces the students to memorize the facts rather than their practical implication. After four and half years when a student enters into phase of internship, time of clinical implication of facts, students are either indulged in paper works in wards or cramming the MCQ books.

The curriculum followed in medical colleges is predominantly knowledge based pertaining to basic sciences and clinical disciplines. Some contents are obsolete but still included in syllabus while there are certain areas like medical ethics, behavioral science, communication skills, managerial skills which do not receive due attention in the existing curriculum as they should do.[5,6]

WHAT NEEDS TO BE DONE?

Once upon a time, doctors were treated as equivalent to god but thanks to growing level of mistrust among the public for the doctors there is rise in cases of negligence, misconduct, and unethical practices leading to legal suits. Among many factors like faulty government policies, boom in private medical colleges, commercialization of medical profession are cited as a common reason for above but overtime serious doubts have been raised over quality of education. After completing his graduation they may have sound knowledge of the subject but lacks its practical implication. Are the graduate doctors well trained to perform their clinical responsibilities? Are they aware of their ethical, moral and legal responsibilities?[5]

Although a revolutionary change is required for uplifting health sector in India but few changes in approach can be of practical implication. Hereby summarizing a few-

a) **INTEGRATED CURRICULUM**-An integrated curriculum provides a meaningful learning experience as learning takes place in a context (contextual learning). It also promotes a holistic approach to patients and their problems. The MCI has recommended both horizontal (e.g.,anatomy,physiology,biochemistry) and vertical integration(e.g., anatomy with surgery) to be introduced throughout the curriculum.[7] A move towards integrated teaching is likely to reduce the fragmentation of the medical course, and motivate students for better learning

b) **PROBLEM BASED LEARNING (PBL)**- Though the concept of problem based learning (PBL), is still not introduced in Indian medical colleges but it is introduced in many medical schools outside India[8]. PBL approach has been found to be a useful and effective educational strategy to produce graduates who are good problem solvers. This approach also underlines ‘learning how to learn’ and stimulates self-directed learning as a central, pervasive objective of the teaching-learning process in undergraduate (UG) medical education. Every medical graduate should appreciate that learning is a continuous process and one should periodically update one’s knowledge. Acquisition of learning skills for self-directed learning is critical to medical students and this is promoted by the PBL approach.

c) **ASSESMENT METHODS**- “Examinations drive students’ learning’ describes one of the strongest relationships in education.[9]Of all the different components of a medical education program, the assessment strategies directly influence the way students learn. Contemporary developments in assessment are based on more integrative concepts, in which the prominent features are not traits but roles or competences.[10] The key element in this is the successful completion of a certain task or role, for which different aspects of medical competence have to come together and be integrated.[11,12] Miller’s pyramid marked the beginning of this thinking.[13] Miller introduced a conceptual framework in the form of a pyramid wherein various layers of the pyramid are defined not as traits but as verbs or actions, which are observable and can be judged and thus used for assessment. These are—‘knows’ (factual knowledge), ‘knows how” (analysis, application and interpretation of knowledge), ‘shows how’ (actual application and practical demonstration in a simulated situation) and ‘does’ (perform in real situations).*Clinical competence* is defined as the

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ability to assume a combination of well-defined roles. These roles are: provider of direct patient care, worker in the healthcare system, scientist, educator and person.[14] In contemporary assessment programmes, various instruments are used to obtain information about a student's competence in each of those roles. The 'one instrument for one trait' approach has now become a 'multi-instrument for multiple roles' approach.[15] The growing interest in quality improvement, bolstered by increasing demands for public accountability, has shifted the focus to assessment of work. The assessment of actual performance in practice is essential to quality management. This is what is referred to as 'performance' or 'work-based assessment'.[16]

Present assessment methods involve annual theory and practical examinations but at present it is essential to move away from the knowledge dominated examinations to more skill oriented examinations. There is a need to rationalize the examination system by giving due emphasis on the 'formative' or internal assessment, introduction of logbooks, and supplementing the traditional long/short case examination with more valid and reliable instruments for assessment of clinical skills like objective structured clinical examination (OSCE).[17]The assessment should predominantly be based on the core curriculum and should be criterion referenced i.e., the performance of students is assessed against a standard criterion and not just in comparison to others. In practice, most of the examinations in medicine are norm-referenced or peer-referenced because no clear criteria are laid down beforehand. A formal assessment at the end of internship can ensure proper utilization of this period for development of skills. Feedback to students at every stage, throughout the training is important to help them improve their deficiencies.

d) **MEDICAL TEACHER-**The teacher is the corner-stone for any system of education. Appropriate method of selection and adequate training in the techniques of teaching would go a long way in improving the quality of teaching. Unfortunately, teacher training is perhaps the most vulnerable of issues in medical education.[10] A medical teacher have to perform multiple roles like a clinician, academician, policy maker. In present era of information and technology, a medical teacher is expected to possess skills and abilities to plan the curriculum, make rational use of the media technology and design an assessment strategy. This is possible only through a systematic approach to faculty development. As suggested by MCI, the development of medical education units in all medical colleges will go a long way in the development of teaching skills amongst their faculty. In most of our medical colleges, although junior and senior resident doctors are required to undergo teaching experience as part of their academic work, seldom does any formal training accompany this experience. While training forms an essential requirement, it is also necessary to provide academic recognition to the teachers for their contribution to teaching. Otherwise, teaching will be overtaken by the priorities of research and patient care. It is important to encourage and reward teachers who show a flair for teaching and adopt innovative teaching methods.[1,7]

The role of patient care in teaching hospitals needs to be emphasised. The teaching medical faculty can set an example of dedicated public service which can be imbibed by and would have a lasting effect on impressionable undergraduates. The accountability and monitoring of the teaching faculty towards fulfillment of their teaching responsibilities is a sensitive but very important issue. The students are encouraged to evaluate the performance of their teachers and provide useful feedback to the latter for improvement.

SUMMARY

The aim of the system should be to create socially committed and skilled doctors. Students should be given opportunities to develop their communication skills and leadership abilities. Medical research with New teaching methods like Integrated teaching, Problem based learning, Evidence Based Medicine, Continuing Medical Education and use of new technology in class rooms will make a huge impact in future of an Indian medical graduate.

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