

## Faculty Development in Medical Education in India: The Need of The Day

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**Abstract:** Medical education in India is challenged with the shortage of teachers. The teachers are not adequately prepared to handle tasks in response to the emergent needs. This paper highlights the need for strengthening faculty development as a vehicle for capacity building in medical education. The initiatives taken by several institutions and agencies during the last four decades have been briefly described. Recommendations have been made to overcome the deficiencies. Our recommendations include: the need for formulating a national policy on health professional education; change in the emphasis from inspection by regulatory bodies to quality assurance and accreditation; providing support for Medical Education Units / Centres in terms of finance and staffing; incentives and recognition for contribution to faculty development; incorporation of teaching skills in postgraduate training; and enlarging the scope of faculty development to health professional education.

### What is faculty development?

Faculty development (FD) is a planned program (i) to improve an individual's knowledge and skills in teaching, educational research and educational administration and (ii) to prepare institution and faculty members for their various roles [1]. In medical education, faculty development deals with the sensitization and training of teachers in carrying out their professional tasks, which lead to improvement in the quality of teaching and learning that contributes to the competence of health professionals. Faculty development has assumed a lot of significance, because of its role in capacity building. The theme of faculty development is how best to sensitize, equip and empower teachers for discharging their professional responsibilities.

### Why faculty development is needed in medical education?

Teaching is a demanding and complex task. George Miller observed, "It is curious that so many of our most important responsibilities are undertaken without significant preparation. Marriage, parenthood and teaching (in medical schools) are probably most ubiquitous illustrations" [2]. It is necessary for the present day teacher to be aware of and become part of far reaching changes that are taking place in medical education. The changes are: shift from conventional role of teacher, changes in learning styles, innovative curriculum models and changes in assessment philosophy, methods and tools [3].

1. *Additional roles of teachers:* Conventionally, the role of a medical teacher was confined to 'information giver', viz., passing on a wealth of biomedical information to the students assuming that the students would be able to do their jobs well, once placed in a situation. The teacher in the present scenario is expected to play multiple roles such as:

- facilitator (of learning)
- curriculum and course planner
- resource material creator
- student assessor
- mentor
- program evaluator

2. *Changing Learning styles:* Medical students need to be effective life long learners in order to continue to develop personally and practice professionally. This demands encouragement of diverse learning styles. Application of adult learning principles, student autonomy, self-learning, experiential learning, reflective learning, computer assisted learning, distance learning, e- learning, use of skill learning laboratories are some of the areas requiring expertise, which are not readily available with most teachers.

3. *Innovative curriculum models:* While many medical schools abroad are offering innovative curricula such as 'Problem based curriculum (PBL)', 'Integrated curriculum', 'Cell Biology curriculum', 'Competency based curriculum' and 'Hybrid curriculum', in India we are still following traditional subject based curriculum. Shifting to a new curriculum requires skills and competence that cannot be taken for granted.

4. *New Assessment methods and tools:* The traditional methods of assessment have been challenged. Dissatisfaction has been expressed over their validity and reliability. Several new methods and tools are now available, the use of which requires special training. To name a few:

- OSCE & OSPE
- OSLER (Objective Structured Long Examination Record)
- Mini CEX (Mini Case Evaluation Exercise)
- Cbd (Case based Discussion)
- DOPs (Direct Observation of Procedures)
- Portfolio
- Multi Source Feedback
- 360 degrees
- Patient Satisfaction Questionnaire

The focus of student assessment has shifted to the use of multiple-methods for testing a wide gamut of learning outcomes, such as higher cognitive abilities, communication skills, IT skills and professionalism including ethical behavior. Many of the methods lay emphasis on frequent assessment of learning outcomes through predetermined agreed assessment criteria, using observation check- lists, or

rating scales for scoring. It is, therefore, essential for our teachers to be aware of these new developments and suitably adopt them in our medical education system.

### **Situation Analysis:**

*Shortage of teachers:* At the time of independence in 1947 there were only 17 medical colleges in India. By 2007 there were more than 260 colleges. A notable feature is that 53% of these colleges are in private sector. As per Medical Council of India Regulations (1998), an estimated 26,000 teachers would be required for graduate program (MBBS) and few more for conducting postgraduate programs. There is shortage of about 20-30% teachers in medical colleges [4]. The future challenge, therefore, lies in how best to achieve capacity building of teachers in a short span of time.

*No formal policy on faculty development:* Whereas, elementary, primary and secondary school teachers have to undergo training in formal schools or colleges of education to be eligible for appointment as well as promotion, there is no such requirement for appointment of teachers in medical colleges in India. Health Survey and Development Committee, popularly known as Bhore Committee recognized the need for training of medical teachers as early as in 1946 and made recommendations. Nearly, three decades later, efforts towards this began.

### **Faculty Development movement**

*WHO initiative:* An expert committee of the World Health Organization (WHO) in 1965 brought out a report on, "The training of teachers of medical schools with special regard to developing countries". The committee suggested three levels of training:

*Educational specialists:* Medical and other health professionals who have obtained training in education, or professional educators familiarized with health profession.

*Educational Leaders:* Medical and other health professionals who would acquire sufficient knowledge of educational science to integrate into programs of study in institutions.

*Educational Practitioners:* Medical and other health professionals whose training would be limited to primarily improving their competence as classroom teachers or clinical teachers.

With these aims and as a part of global initiative for teacher training WHO designated in 1969 Centre for Medical Educational Development, University of Illinois College of Medicine, Chicago, and Department of Medical Education, University of Southern California, Los Angeles in US, as International Regional Teacher Training Centres (IRTTC), headed by Dr. George Miller and Dr. Steve Abrahamson, respectively. These Centres trained educational specialists and leaders for the six Regional Teacher Training Centres (RTTCs) that were established. In South East Asian Region, University of Peradeniya in Sri Lanka and Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand, were designated as RTTCs. These RTTCs with support from IRTTCs trained national level educational leaders for establishing National Teacher Training Centres (NTTC). The major aim

of NTTCs was to train teachers from medical colleges in their respective countries who would establish medical education units in their colleges.

*Progress in India:* The faculty development began in India during 1976. Its progress may be categorized into four initiatives, viz., contribution made by (i) NTTCs, (ii)

Medical Education units (MEUs), (iii) Consortium of Medical Institutions for Reform of Medical Education and (iv) FAIMER (Foundation for Advancement in International Medical Education and Research, Philadelphia).

*Role of NTTCs:* In India the first NTTC was established at Jawaharlal Institute of Medical Education and Research, (JIPMER), Pondicherry. First National Course on Teacher Training was held in March 1976, with support from WHO. Encouraged by the activities of the NTTC at JIPMER, Ministry of Health and Family Welfare, Government of India established three more centers, one each at Postgraduate Institute of Medical Education and Research (PIGMER), Chandigarh, Institute of Medical Sciences, Banaras Hindu University, Varanasi, and Maulana Azad Medical College, New Delhi. NTTC activities included 6-10 day courses for medical college teachers on different facets of educational science and technology. These courses helped introduction of a number of innovations in various medical colleges. NTTCs encouraged and supported starting of medical education units in other colleges. NTTCs could be credited to have groomed the initial set of educational leaders and educational practitioners during 1980's-1990's and augured the future growth of faculty development. Ministry of Health and Family Welfare, Government of India stopped financial grant in 2002. The NTTCs were forced to discontinue national courses due to lack of funds.

*K.L.Wig Centre for Medical Education and Technology (CMET):* CMET was established at All India Institute of Medical Sciences, New Delhi in 1989-90. It received initial support from Government of U.K. and New Zealand. Many teachers were sent on fellowship to the U.K. The Centre has contributed to the development of educational specialists and leaders. The Centre coordinated consortium activities and brought out two valuable documents pertaining to curricular changes in MBBS course. It also took a lead role in the revision of MBBS regulations by Medical Council of India during 1997. The Centre conducted a National level conference jointly with FAIMER on Faculty Development in November 2007.

*Medical Education Units:* Some motivated teachers after undergoing training established medical education units in their colleges. Notable ones are at Manipal, Visakapatnam, Bangalore, Belgaum and Mumbai. There is now a significant increase in the number of medical education units. Growth of medical education units has been faster after 1999 compared to earlier years because of incorporation of the clause in MCI Regulations of 1999 that every medical college should have a medical education unit [5].

*Consortium of Medical Institutions for Reform in Medical Education (1989-95):* Four leading medical institutions All India Institute of Medical Sciences (AIIMS), New Delhi; Institute of Medical Sciences, BHU, Varanasi; Christian Medical College, Vellore, JIPMER, Pondicherry and the Department of Medical Education, College of Medicine at Chicago, University of Illinois, formed a Consortium which undertook "Inquiry Driven Strategies for Innovations in Medical Education" under a

WHO project. By means of twinning the consortium networked with 16 colleges and gave boost to faculty development [6]. A notable contribution of the consortium was the preparation of a national consensus curriculum document that specified a list of essential skills, content classified in to "must know" and "good to know" categories, and outlining integrated modules on topics of national health importance. The consortium activities ended as it stopped receiving the support from WHO-SEARO.

*Medical/ Health Sciences Universities:* Based on the recommendations of Prof. Rias Ahmed Committee, medical/health science universities were established to help medical colleges and other health profession education institutions maintain high standard, institute faculty development programmes, promote research and adopt a multidisciplinary approach to professional development relevant to socioeconomic conditions of India. Three out of the six health sciences universities, namely, Rajiv Gandhi University of Health Sciences, Karnataka, Bangalore, (RGUHS), Tamilnadu Dr.M.G.R. Medical University, Chennai and Maharashtra University of Health Sciences, Nashik (MUHS), established curriculum development units under a Director. These units have been organizing as well as coordinating faculty development by providing funds and resource persons for holding short Training of Trainers (TOT) courses. A notable feature is the initiative of RGUHS in curriculum development and publication of curricular documents. It has also introduced teaching of ethics in the curricula of all the courses. MUHS has established a Department of Medical Education and Technology at Pune.

*Consortium of Health Science Universities:* At the initiative of Rajiv Gandhi University of Health Sciences, a conference of Vice Chancellors of Health Science Universities including Deemed to be Universities was held in August 2007 at Bangalore. It was decided to form a Consortium of Health Science Universities. Vision, Mission statement and objectives have been formulated. Indeed a welcome step.

*FAIMER initiatives: (2001):* Foundation for Advancement of International Medical Education and Research (FAIMER), Philadelphia, is a nonprofit foundation of ECFMG, USA. It supports faculty development through two-year part time fellowship program designed to develop managerial and leadership skills, in order to promote changes in medical education through networking [7]. FAIMER has established a chain of Regional Institutes world-wide, including three such regional centres in India at Seth GS Medical College, Mumbai, Christian Medical College, Ludhiana and PSG Institute of Medical Sciences, Coimbatore. Some of the FAIMER fellows have pursued further studies including international fellowships and research in medical education, a welcome development for future growth of faculty development in medical education.

*Road blocks for Faculty Development:* Although a large number of medical teachers were sensitized, only some have been able to implement the concepts. The impediments are lack of motivation amongst teachers as well amongst educational administrators, poor recognition and lack of reward for the work done. Motivated teachers have to fulfill their teaching and clinical commitments and in addition devote time for faculty development activities. Financial grant given to NTTCs was not only meager but also the release was irregular. Even that was stopped.

**Recommendations:**

Faculty development is an important component in medical education. It is necessary to organize faculty development in a systematic manner. Steps are necessary at various levels, as the stakeholders are many, viz., the policy makers, the Government of India, Medical Council of India, teachers, students and private and government college managements..

1. *Health Profession Education Policy:* Serious efforts should be made to develop a National Health Profession Education Policy. Representatives of regulatory Councils (like Medical, Dental, Nursing and other Councils), National Board of Examinations, medical educationists and other stakeholders through advocacy and discussions, persuade Parliamentarians and Health ministry officials to develop a Health Profession Education Policy. Medical Education Policy should be a component of this policy. The medical education policy should set guidelines for medical HRD (human resource planning and development). The plan should lay down after thorough review and debate: (a) criteria for starting medical colleges in the country in future in an equitable way; (b) admission procedures to medical colleges including age at admission, (c) fee structure; (d) realistic norms on requirements of teachers; (d) procedures for recruitment of teachers including eligibility; weightage for aptitude for teaching; (e) faculty development and career development avenues; (f) long term, medium term and short term strategies to overcome shortages and mismatches of teachers.

2. *Change from Inspection to Accreditation :* The present system of recognition of a medical college by Medical Council of India (MCI) focuses mainly on number of teachers, building, infrastructure and other facilities which are not the measures related to quality of medical education. There is hardly any interaction between inspectors and faculty, students, parents or patients to find out academic achievements and quality of care. Inspection should give way to a comprehensive system of quality assurance and accreditation with focus on academic quality. Emphasis should shift from quantitative judgment to a continuous monitoring of the quality through institutional self study and peer appraisal.

3. *Support for Faculty Development:* Faculty development is constrained by lack of commitment at various levels – Central and State Governments, regulatory bodies, college management and teachers. For instance, financial grant given to NTTCs was not only low but also the release was irregular. Unfortunately, Ministry of Health and Family Welfare stopped financial grant from 2002 which was a retrograde step. As already mentioned motivated teachers have to fulfill their teaching and clinical commitments and then spare time for faculty development activities. Their work does not receive any recognition or reward from college management. While University Grants Commission has given importance to faculty development and has established 46 Academic Staff Colleges, no such effort has been made in health profession education. Periodic teacher training should form an essential requirement for career development, promotion and empanelment as examiners. Teachers should be encouraged to attend faculty development programmes by offering leave of absence travel grants or such other facilities for attending workshops and conferences. Central Government, State governments, Health Sciences Universities, Medical Council of

India and National Board of Examinations should take proactive role, identify active medical units and support them for faculty development.

4. *Revival of NTTCs*: The NTTCs should be revived with support from the Ministry of Health and International agencies. Few more should be established in view of large number of teachers requiring training. There is hardly any faculty development activity reported from Central, Eastern and North Eastern India. NTTCs should be established to cater to the needs of these regions. All NTTCs should be backed with adequate infrastructure, qualified and competent staff. If full timers are not available, motivated teachers both in active service and retired should be seconded for brief periods on rotation to NTTCs.

5. *Functional Medical Education Units (MEU)*: MEUs, particularly those in recently established colleges should become functional and engaged in activities like faculty development, curricular innovations, student assessment and educational research. Private and government college managements should allocate funds for MEUs annually. At least 1% of annual budget of the college should be earmarked for MEUs for sustaining activities. There is a need for formulating a flexible staffing policy. A system of hiring "Adjunct Faculty" with a package of incentives should be worked out.

6. *Revival of Fellowships and Travel grants*: Earlier, World Health Organization, and other international organizations offered regularly fellowships for study tours and for advanced training in reputed centres in the UK, USA, and Australia which was discontinued. National agencies as well international agencies like World Health Organization should revive fellowships for study tours to reputed medical education centers within and outside country and encourage specialization in education.

7. *Recognition and Encouragement*: Teachers who have introduced innovations or contributed to improvement in medical education should be duly recognized and rewarded. There should be a mechanism for periodic review of performance of teachers. Teachers should become accountable.

8. *Incorporation of Medical Education Technology in Postgraduate training*: Postgraduate training lays a foundation for the development of future teachers and trainers. It is therefore necessary to "catch them young" and incorporate the elements of educational science and technology. A modular approach to such training in areas such as teaching skills, student assessment, role of media, e-learning, scientific writing, medical ethics etc., would be beneficial for the postgraduate students.

9. *Enlarging the scope of Medical Education Units to Centres of Health Professional Education*: Considering that resources are limited and a multi-professional approach is highly conducive for training a health team, a movement is desirable to extend the scope of medical education units to include other professionals especially, nursing, dental, physiotherapy and allied systems. This step marks the beginning of Centres of Health Professional Education, which can adopt a holistic approach to the training of all health professionals.

We would like to conclude by raising few more challenges facing faculty development<sup>2</sup>.

### **Challenges facing faculty development in India**

1. Can pre-service and in-service teacher training be made mandatory for employment and career advancement for medical teachers?
2. How can we provide more "incentives" – material and non material- for innovative teachers?
3. How do we attract younger professionals to teaching? Most of them seem to be having other priorities in this globalized, market-oriented world!
4. Can we integrate faculty development with the educational programs themselves, not only as separate sets of activities?

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