

## FACULTY DEVELOPMENT IN MEDICAL EDUCATION

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### Summary

*Faculty refers to those who teachers. It is defined as a group of body of peoples, specially teachers, professors and lecturers with a common duty or obligation which is to teach at a certain educational institution. They are the academic staff of the institution and also called the teaching staff. They are specialized in various fields of study and teachers different subjects at the institution. Faculty development is the personal and professional development of teachers, clinicians, researchers and administrators.*

### Key words

Medical education; Faculty development; Professional development.

### Introduction

The fundamental purpose of medical education is to enable the student to think and act clinically at a define level of competence leading to a career in general or specialty in professional development to deal with health problems of the population both healthy & sick in a holistic views. Medical education in Bangladesh is feeling acute crisis of teachers. As medical science is going continuous change due to newer dicoveries. A teacher should be aware of this continuous change. 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. There are a variety of approaches to professional development, including consultation, coaching, communities of practice, lesson study, mentoring, reflective supervision and technical assistance [1].

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### Faculty Development

The term 'faculty development' is commonly used to describe activities and programs designed to improve instruction. In some literature 'academic development' refers to development activities and programs that address the multiple roles of faculty. The 21st century definition of FD: The personal and professional development of teachers, clinicians, researchers and administrators to meet the goals, vision and mission of the institution in terms of its social and moral responsibility to the communities it serves. Itis also called staff development [2].

### Historical Perspective

The birth of faculty development as a critical tool for improving teaching in the United States has been tracked to the project in Medical Education. This collaborative venture, funded by the Commonwealth Foundation at the University of Buffalo in 1955 under the collaborative leadership of George Miller, MD, from the School of Medicine, and Stephen Abrahamson, PhD, from the School of Education, was focused on bringing the findings of research in education to bear on the design and delivery of teaching in the medical school. A medical student joined the project and completed both an MD and an EdD in education, Hilliard Jason (1962) is credited by many as the founder of teaching improvement programs in medical education (Wilkerson and Anderson 2004) through the Association of American Medical Colleges (AAMC). Jason subsequently developed workshops, videos, and reading materials on learning to teach, with a particular emphasis on small group discussion and clinical teaching opportunities.

At this same time in higher education in the United States, the increasing use of student evaluations of teachers led to the emergence of programs to improve the teaching. Similarly, in the Netherlands during the 1970s, the first faculty development programs to improve teaching in higher education began (Metz et al 1996).

Stimulated by the work of Allen and his colleagues at the University of Massachusetts, the "Handbook for Faculty Development" by Bergquist and Phillips (1975) and "Toward Faculty Renewal" by Gaff (1975) was published. In Great Britain during the 1990s, Peyton (1998) introduced a 'teach`the- teacher' program for clinical teachers using a "train-the-trainer model" to extend the reach of typical teaching improvement programs to include physicians who teach in the work place rather than in the academy. All of these types of teaching improvement topics and activities continue to be offered today as part of comprehensive teaching improvement programs in both higher education and health professions education.

To this mix, the use of online interactive modules and social media have been added to further increase accessibility of teaching improvement programming.

#### **Domains / Areas of Faculty Development**

- Teaching
- Instructional Design and Curriculum Development
- Scholarly Activity including writing, conducting research, presenting at conferences etc.
- Leadership, Administration, and Organizational Development
- Personal and Professional Development

#### **Effective Faculty Development Program Checklist**

- Understand the roles and expectations of the faculty
- Develop respect and trust with faculty as learners
- Review a wide perspective for consistent new abilities that addresses all the aspects that impact faculty success in each setting
- Connect the institutional/organizational culture with the faculty development culture
- Conduct a needs assessment to establish relevant program outcomes
- Solicit timely and effective feedback
- Design and implement a variety of programs to meet diverse needs
- Prepare staff developers

- Implement reward structures for participation in faculty development programs
- Build a culture for learning based on collaboration, teamwork, and shared vision

#### **Types of Faculty Development Programs / Services**

- Workshops and Seminars (Examples below)
- Writing meaningful learning Objectives
- Writing test items to measure learning objectives
- Making your presentations interactive
- Designing effective instruction
- The Myers Briggs type indicator applied to teaching
- 7 habits applied to teaching
- Developing a teaching portfolio
- Computing / Medical informatics skills
- Book discussion groups
- Observation and feedback
- Individual consultations
- Peer coaching
- CDs on clinical teaching
- Monthly educational publications
- Web Based faculty development materials
- Notification to faculty of Faculty Development Programs (FDP) offered by main campus

#### **Online Professional Development**

The 21st century has seen a significant growth in online professional development [3]. Content providers incorporate collaborative platforms such as discussion boards and wikis, thereby encouraging and facilitating interaction, and optimizing training effectiveness.

Rather than replacing traditional sources of professional development, online sources and providers have served to augment existing options and can bring a widening access to topics and a broader scope to "learning communities." As teacher performance comes under increased scrutiny, a study conducted by Boston College found that English and Mathematics teachers who took professional development courses online improved their instructional practices and boosted their subject knowledge scores, producing modest performance gains for their students [4,5].

### **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" [6]. 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 [7].

#### ***i) 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

#### ***ii) 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.

#### ***iii) 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.

#### ***iv) 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 Goals of the Faculty Development Program are [8]**

The goals are to promote the fulfillment of the Educational Strategic Plan's learning and teaching principles through a comprehensive faculty development program that covers the continuum of medical education and that targets students, residents and faculty members.

- Address faculty needs for professional development
- Support individual faculty in their roles as educators
- Offer a variety of venues to assist faculty with enhancing their educational contributions
- Help faculty in advancing their careers as medical educators by developing their educational contributions into scholarly work and educational scholarship, including assisting faculty with the design, implementation, analysis and dissemination of educational research projects and educational grants
- Promote the recognition of faculty educational contributions through faculty development
- Assist with the design, implementation and evaluation of Resident-As-Teacher program
- Participate in the design, implementation and evaluation of TUSM's Student-As-Teacher (SAT) Program
- Create a collegial faculty/resident/student forum around TUSM's teaching and learning practices

- Promote the train-the-trainers model through efforts by involving faculty as peer trainers
- Promote sharing of best practices among faculty members and affiliated teaching sites
- Contribute to developing a scholarly curriculum.

For more information about the Faculty Development Program.

#### **Situation Analysis**

Up to 1971 there were only 07 Medical College, in 2014 there are total 33 Postgraduate institutes, 23 Government and 53 Non Government Medical Colleges and are 09 Government and 14 Non Government Dental Colleges in Bangladesh and now number of Medical College is 105 [9]. There are total 81 Institutes of Health Technology (IHT) 96 Medical Assistants' Training School (MATS) 82 Diploma Nursing Institutes, 20 Diploma Midwifery Nursing Institutes, 19 basic BSc Nursing Colleges and 19 Post Basic Nursing Colleges in Bangladesh.

But 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.

#### **Faculty Development Initiatives in Bangladesh**

A project for Strengthening Health Manpower development program was undertaken and completed in early 1980s with the following objectives:

- Restructuring of the existing curricula and examination system
- Exposure and orientation of teachers to teaching methods, developed in other countries by means of short and long term fellowships
- Establishing a properly functioning teachers training unit to prepare teachers in all aspects of medical education including modern technology and curriculum design
- Establishing a properly functioning central and peripheral audiovisual units, laboratories and libraries.

In view of evaluation the project was closed, and a new project named Development of Centre for Medical Education, was commissioned on 3 September 1981. As a result the Centre for Medical Education (CME) was established in 1983 to meet the national needs for strengthening

the medical education system to ensure an integrated and community oriented health services.

#### **Activities of CME**

- Conducting Masters in Medical Education (MMed) Course and short courses in Health professions education
- Curriculum Development for undergraduate medical course (MBBS) Dental course (BDS) Nursing course, Medical assistants course (MATS) Health technologists course (IHT) etc
- Implementation, monitoring, supervision and evaluation of undergraduate course curriculum of different medical and related health institutes and recommends for their accreditation
- Training of teachers of Postgraduate Medical Institutes, Medical Colleges, Nursing Colleges, and Institute of Health Technologies and Medical Assistant Training Schools (MATS)
- Developing Quality Assurance Scheme (QAS) for educational and training institutes and facilitating its implementation
- Provide technical support to Bangladesh Medical and Dental Council (BM&DC) Bangladesh Nursing Council (BNC) State Medical Faculty (SMF) and Ministry of Health and Family Welfare (MOH&FW) regarding health personnel education
- Training of Trainers (TOT) for health personnel training
- Organizing educational management training
- Developing instructional materials and training on use of instructional materials
- Organizing continuing education programs for health professional development
- Providing technical assistance to Human Resource Development (HRD) institutes and other training institutes as and when required
- Working in collaboration and establishing linkage with HRD units within the country, development partners and abroad
- Conducting educational research

But it is impossible for CME alone to provide training for the teachers of different postgraduate institutes, Government & Non Government Medical College, Dental College, IHTs, MATS. There should be provision to train the teachers of respective institutes at own premises. Keeping this in mind initiatives were taken to establish Medical Education Unit (MEU) & Medical Skill Center (MSC) in different Medical Colleges specially in old eight Medical colleges. At present Bangladesh is implementing discipline based curriculum with few scope of Community Based Teaching Learning (CBTL) having the provision of core & optional content based curriculum. The products of present MBBS & BDS curriculum are possessing lots of knowledge & theory. But different studies revealed that the products are not competent enough clinically to serve the diseased people as well as they are not competent enough in regards to generic competencies. For the modern world, WHO is suggesting to produce. "Five Stars Doctors" having the qualities & competencies as a manager, decision maker, communicator, leader & care provider.

#### **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 Medical Council, 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 Council) persuade Parliamentarians and Health ministry officials to develop a Health Profession Education 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:

- Criteria for starting medical colleges in the country in future in an equitable way
- Admission procedures to medical colleges including age at admission

- Fee structure
- Realistic norms on requirements of teachers
- Procedures for recruitment of teachers including eligibility, weightage for aptitude for teaching
- Faculty development and career development avenues
- 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 focuses mainly on number of teachers, building, infrastructure and other facilities which are not the measures related to quality of medical education.

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**

Teachers should be encouraged to attend faculty development programmes by offering leave, travel grants, or such other facilities for attending workshops and conferences.

#### **4. Revival of National Teacher Training Centers (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.

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, should start 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**

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 MEU to Centres of Health Professional Education**

Considering limited resources a multiprofessional approach is highly conducive for training a health team, 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.

### **Conclusion**

Teachers training and professional development never really ends, but is a career-long pursuit by educators. As faculty developers, we will need to

continue to innovate in defining and teaching the competencies necessary for our health professions teachers as they progress from novice to master teachers.

### **Disclosure**

All the authors declared no competing interest.

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