

## ORIGINAL ARTICLE

**Evaluation of Opinion on Impact of Teaching Methodology Workshop on Teachers of Different Undergraduate And Postgraduate Medical Institutes**Md.Humayun Kabir Talukder<sup>1</sup>, Fatima Parveen Chowdhury<sup>2</sup>, T. J. Rashid<sup>3</sup>**Abstract :**

*In the modern era of science and technology, development and implementation of need-based and community-oriented workshops on different aspects of health science plays a crucial role in contributing to betterment of both medical teaching-learning and clinical practice. Therefore, workshops that focus on teaching methodology are responsible for not only creating and enhancing awareness among all medical teachers but also facilitating innovation and implementation of newer tools in medical education. This cross sectional questionnaire based descriptive study was conducted on both governmental and non-governmental medical academic institutes on a simple random sample of 157 participants and 35 heads of departments. The study results showed that 155 participants agreed upon the benefits of the workshop and attainment of its objectives. The heads of the departments acknowledged that the workshop produced positive attitudinal change in the teachers and provided strong incentives for continuing professional development. It has evaluated the impact of various parameters related to teaching-learning in medical education, demonstrating the areas that need more attention and the areas that in the recent years are contributing to significant change in medical teaching in our country.*

**Introduction :**

Since its inception in 1983, CME (Center for Medical Education) has been actively engaged in facilitating the development and progress of health need-based medical teaching system in the country within the constraints of limited health resources of the country. Organization of teaching methodology workshops is one of its many objectives and since 1985, CME has been conducting them for both undergraduate and postgraduate medical institutes of the country with significant success<sup>1</sup>. The first major recommendation to consider the training and preparation of teachers of medical schools with special attention to developing

countries appeared in a report of a WHO expert committee convened in 1965 leading to working out of plans in 1969<sup>2</sup> and later the formulation of general goals of teacher training programmes in 1973-1974<sup>3,4</sup>. In 1976-1977, a scheme for strengthening health manpower development was undertaken with United Nations Development Programme (UNDP) assistance with the primary goal of reorientation and remodelling of the medical education system to create manpower for delivery of integrated community-based health services. This finally led to the inception of a centre for medical education in our country.

The current educational paradigm focuses on traditional methods of teaching and assessment techniques. It has mainly been derived from a European background created during the industrial revolution. In

1. Asstt. Professor, Centre for Medical Education, Mohakhali, Dhaka.
2. Professor & Director, Centre for Medical Education, Mohakhali, Dhaka.
3. Professor & Head of the Department of Pharmacology, Bangladesh Medical College, Dhaka.



modern era, the new educational paradigm emphasizes on individual learner and targets at provision of in-depth learning opportunities<sup>5,6</sup>. The different educational programmes that are conducted to evaluate the effectiveness of any teaching- learning methodology strives at enhancement of learner's achievement and promotion of professional development.

World health organization (WHO) has provided immense support to the movement of reorientation of medical education and created the general consensus that in the medical and allied professions the teachers need to be prepared for their own discipline and in the overall processes and methods related to medical education<sup>7</sup>. The main concept of WHO Teacher Training Programme is to equip the teachers in the field of educational planning and related concepts such as educational measurements, group dynamics, educational psychology etc and that teachers can set their educational teaching objectives based on community health needs.

This study aimed at evaluating the teaching methodology workshops for medical teachers of both government and non-government medical institutes of the country.

#### Materials and method :

This cross sectional descriptive study was conducted on participants of undergraduate, postgraduate and allied health institutes of the country encompassing those in both the government and non-government sectors. By simple random sampling a total of 157 teachers and 35 heads of departments were included in the study. Self-administered structured questionnaires were prepared and

pre-tested to determine the validity and reliability prior to data collection. Five experts were involved in the pre-testing and item correlation was calculated as per standard rules. The reliability of the self-administered questionnaires was high as confirmed from high reliability coefficient of 0.8. The participants who attended the workshops were those who consented and were available at the time of the data collection in their respective institutes.

#### Results :

**Table-I:** Opinion on the impact of the teaching methodology workshop on teachers opinion about curriculum development, recent advances in medical education, lesson plan formulation and conducting large and small group teaching

Parameters	Frequency	Percent
Provides idea about curriculum development:		
yes	142	90.40
no	15	09.60
Provides idea about recent advances in medical education:		
yes	142	90.40
no	15	09.60
Provides idea about lesson plan:		
yes	155	98.70
no	02	01.30
Provides idea about lesson plan for large group teaching:		
yes	128	81.50
no	29	18.50
Provides idea about lesson plan for small group teaching:		
yes	148	94.30
no	09	05.70

Table-I shows that there was positive and in-favor attitude evaluation in more than 80% of the participants in all of the parameters assessed.



**Table-II:** Opinion on the impact of the teaching methodology workshop on effective teaching learning tools, preparation of teaching materials, knowledge acquisition on principles of assessments and preparation of the assessment tools

Parameters	Frequency	Percent
Impact on effective teaching learning:		
yes	155	98.70
no	02	01.30
Impact on preparation of teaching materials:		
yes	150	95.50
no	07	04.50
Impact on acquisition of knowledge in principles of assessment:		
yes	152	96.80
no	05	03.20
Impact on preparation of assessment tools (MCQ/SAQ):		
yes	152	96.80
no	05	03.20
Impact on preparation of assessment tools (OSCE/OSPE):		
yes	153	97.50
no	04	02.50

Table-II shows that the opinion about the impact of various teaching materials was highly positive and observed in more than 95% cases for each parameter assessed.

**Table-III :** Opinion on the impact of the workshop on teachers satisfaction level, opinion about the duration of the workshop, benefit obtained, objective acquisition and willingness to attend future such workshops

Parameters	Frequency	Percent
Overall satisfaction level:		
highly satisfactory	33	21.00
satisfactory	92	58.60
better	22	14.00
good	10	6.40
Opinion on the adequacy of the duration of the workshop:		
strongly agree	14	08.90
agree	81	51.60
undecided	16	10.20
disagree	42	26.80
strongly disagree	04	02.50

Parameters	Frequency	Percent
Opinion about reaching the objectives:		
yes	155	98.70
no	02	01.30
Opinion about benefits of the workshop:		
yes	155	98.70
no	02	01.30
Willingness to attend similar workshop in future:		
yes	153	97.50
no	04	02.50

Table-III shows that the overall satisfaction level for the workshop was marked satisfactory by 58.60% participants and for adequacy of duration of the workshop it was at the agreed level for 51.60%. The opinion about the benefits and future willingness to attend similar workshops was positive in more than 97% participants.

**Table-IV :** Opinion about the impact of the workshop of 35 heads of the departments of various disciplines on different parameters

Parameters	Frequency	Percent
Impact on enrichment of knowledge in medical education:		
yes	34	97.10
no	01	02.90
Impact on contribution to teaching skill , preparation of teaching materials and assessment tools:		
yes	35	100.00
no	00	00.00
Impact on attitude change in everyday practice of teaching:		
yes	35	100.00
no	00	00.00
Impact on promotion of continuing professional development:		
yes	35	100.00
no	00	00.00

Table-IV shows that the opinion of 35 heads of the departments about the impact of different components of the workshop was very high.



**Discussion :**

Educational professionals are challenged with ensuring academic gains and development of new approaches and methodologies for knowledge transfer. Certain Caribbean countries have undertaken educational reform programmes to prepare their citizens for the twenty first century. The current pedagogical approach is a teacher-centred (instructionist) methodology and the shift is being made to a student-centred (constructivist) methodology. Barbados has such a programme, termed Edutech 2000, aimed at improving the effectiveness of the national curriculum, pedagogy and assessment of its education system. Similarly, Jamaica has such a programme, termed J2000, which, through appropriate use of information technology, aims at betterment of education in Jamaica<sup>5,6</sup>.

The teaching methodology workshop attended by enthusiastic teachers shows that it creates opportunities for acquiring some form of idea about the concept of medical curriculum and simultaneously about recent developments in medical education. It provides scope for learning and refining one's ability as a teacher in lesson planning and conducting large and small group teaching in his or her respective discipline. Adult learners must have an internal drive for sustained behavioral change in order to bring about significant behavior changes. Attitudes and motivation are instrumental if learners are to use evidence based medical education (EBME) in their daily practice. To create an effective curriculum it is necessary to evaluate not only the knowledge and skill objectives but also attitudinal objectives. In the present day, evidence-based medicine is a part of many medical school and residency curriculum worldwide. It is therefore essential nowadays to evaluate the efficacy of EBME curriculum to achieve lasting and meaningful outcomes<sup>8</sup>.

In this study, from the huge positive response obtained, an astute observation can be made that such educational workshops encourage and guide teachers into effective preparation of teaching materials and effective teaching and learning objectives. The various components of the workshop included discussion of principles of assessments such as the MCQ (multiple choice questions), SAQ (short answer questions), and OSCE (objective structured clinical examinations)/ OSPE (objective structured practical examinations) and formal testing through group works among the participants.

The study revealed positive opinions of the teachers regarding the satisfaction level obtained from the workshop, the adequacy of the duration of the workshop, benefits, the ability to attain the objectives and future desire for active participation in such educational methods of teaching evaluation. This reaffirms the awareness of today's teachers on all relevant issues of medical education that facilitates production of medical graduates and postgraduate doctors with skills and knowledge pertinent to proper serving of community related health problems.

Courses in medical education consist of lectures, tutorials, laboratory sessions and independent study modules. An evaluation of any methodology such as teaching methodology naturally involves looking at the curriculum, its contents and assessments, finding out how learners use educational materials, if the learning outcome has been achieved or not, and if the educational teaching approach is satisfactory and appropriate or not<sup>9</sup>.

Impact is the difference we make in peoples' lives as a result of programmes we conduct. These programmes may be research or teaching, and may or may not involve the public directly while they are being delivered. Impact of a programme is aimed at earning



professional, organizational and political credibility, to support and satisfy the requirements of various bodies. The true impact of any programme will increase as one goes up the hierarchy. The impact of a programme must be measured using suitable methods and tools. The combination of qualitative and quantitative evaluation methods facilitates presentation of the impact of any programme such as a teachers training programme<sup>9</sup>.

Competency assessment in distributed education (CADE) 2002-2003 workshop evaluated the online and on-campus course designing ability of seasoned teachers (with 75% of them having six or more years of teaching experience and most having no experience in online teaching). The workshop results showed that the respondents acknowledged the profound impact of workshop participation on the overall perception of the teachers about the values and benefits of the CADE course design approach<sup>10</sup>.

Teaching methodology workshops are based on participatory approach that gives opportunity for critical reflection and review to all who are involved. Educational change of any kind by nature is a slow process and assessment of any educational change in a developmental context requires a combination of critical factors related to the key role players and the stakeholders<sup>11</sup>.

Mathabathe et al in their study on 49 students of final dental year reported an evaluation made on students and staffs at the end of a 20-week course period on teaching-learning methodology. The staff members were trained in participatory and student centered teaching methods. The students when evaluated after the course gave satisfactory report. The shift from didactic to a participatory student centered approach was well accepted by the students<sup>12</sup>.

The constant effort to improve teaching and learning methods is a global endeavor as evident from different countries implementing and developing new modules of teaching. The professional practice programme also known as the co-operative education (co-op) in University of Cincinnati, USA designed to provide most comprehensive and professional educational preparation for the students demonstrates the appropriate integration of theory and practice<sup>13</sup>. Similarly, an ethic course using traditional, distance and compressed formats of teaching has been implemented in Engineering and Technology University of Indiana, USA to compare and evaluate traditional and other course formats<sup>14</sup>.

It must be remembered that teachers training programmes must fit personal needs and expectations. Personal growth and institutional development are intertwined. Therefore, workshops on teaching and learning must be implemented and evaluated to accommodate progressive learning from general to specific aspects of medical science. It can be concluded that the evaluation of opinion about impact of teaching methodology workshops conducted for the teachers of different medical institutes in Bangladesh was positive and inspiring.

#### References :

1. Guilbert J J. Teacher training workshops in education. A summary of 15 years. *Med Educat* 1985; 19: 332-43.
2. Fulop T. Development of a comprehensive WHO training program for health personnel teachers. WHO unpublished document, PGE/TT/69.5. Geneva: World Health Organization, 1969.
3. Fulop T. Training teachers of health personnel. In: *Development of Educational Programmes for the Health Professions*. Public health Paper 1973; 52: 84.



4. Fulop T. The implementation of WHO's training for teachers of health professions. In: G Miller, T Fulop (editors). Educational Strategies for the Health Professions. Public Health Paper, Number 61. Geneva: World Health Organization, 1974.
5. Boyce S. Impact of technology on the teaching learning process in the Carribeans: Experiences from Barbados and Jamaica. Changes and challenges. Final report of the St. Mary's Primary School Educational Technology Research Project. ETFRC, Barbados, 1998.
6. Whyte N. Closing grade gap: Final report of the Jamaica Educational Technology Research Project. CCS Technologies (Jamaica) Limited, Jamaica, 1999.
7. World Health Organization. WHO study group on the training and preparation of teachers for School of Medicine and Allied Health Science. Geneva: World Health Organization, 1972.
8. Baum KD. The Impact of an Evidence Based Medicine Workshop on Resident's Attitude Towards and their Self-reported Ability in Evidence Based Practice. <http://www.med-ed-online.org/res00053.htm>.
9. Diem KG. Measuring Impact of Educational Programs. Fact sheet. [www.rce.rutgers.edu](http://www.rce.rutgers.edu).
10. Cade 2002-2003. Workshop Evaluation. Jesuit. <http://www.jesuit.net/cadeeval.htm>.
11. Harmelen van U. Evaluating changes in Educational development. Development Partners in Evaluation OEC/DAC workshop, Paris, France, 25-26 March, 2003.
12. Mathabathe NC, Rudolph MJ, Ogunbodede EO, Smuts B. From didactic to participatory learning. An innovative approach. SADJ 2004; 59: 60-3.
13. Cates.C, Dansberry B. A professional ethics learning module for use in co-operative education. Sci Eng Ethics 2004; 10: 401-7.
14. Feldaus CR, Fox PL. Effectiveness of an ethics course delivered in traditional and non-traditional formats. Sci Eng Ethics 2004; 10: 389-400.