How Difficult Is It To Implement A Competency-Based Medical Education In India: The Next Steps?

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Abstract: Background: Medical Council of India is in the revamping mode to align the medical curriculum to the emerging health care needs of the society, by introducing Competency-Based Medical Education (CBME). This new medical curriculum intends to impart the competencies that are needed to produce medical graduates who would function efficiently as Physicians of first contact or basic doctors in the community. The ECE program would enhance the knowledge, skills, and attitude of the medical graduates if it is implemented. We conducted this study to assess the challenges currently faced by faculties for the implementation of this new curriculum. Material and Methodology: It is a cross-sectional study conducted at NC Medical College, Israna during the study period was July 2021 to November 2021. The study team regularly scrutinized the data collection process and met periodically to review the study conduct and computing of data. At the end of the study period, the consolidated data were analyzed using IBM SPSS version 22. Result: A total of 50 teaching faculties, we acknowledged 48 questionnaires that were complete. 96% faculties showed positive and opportunistic behaviour towards the new curriculum of CBME with constructive ideas but 4% faculties declined. Conclusion: CBME is the paradigm shift in the teaching and learning approach of medical education. Most of the medical faculty members are aware of the need and have attained a positive attitude for the application of CBME. However significant barriers do exist in the form of manpower, new time mapping and resources which need to be addressed. [Tewari R Natl J Integr Res Med, 2022; 13(1): 85-90, Published on 26/01/2022]

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Introduction: The role of an Indian medical professional includes the patient-centric approach of scientific knowledge to effectively manage the health care of individuals of the community. To empower Indian medical graduates (IMG) with the knowledge of science and the skills of patient management, a shift towards competency-based medical education among the Indian colleges is on the route.

Competency-based medical education is accepted by many leading colleges worldwide.

Indian Medical colleges were directed by the MCI to shift the medical education towards this competency-based medical curriculum based on outcome-based education and require achievement of various observable and measurable competencies by the Indian medical graduate. The accreditation council of graduate medical education and America comments that a medical graduate should acquire all domains of competency i.e., patient care, knowledge, communication skills, professionalism, and system-based practice. According to Frank et al, it is a good opportunity to shift medical education in India towards competency-based medical education[1-2].

What Is CBME - A New Phase: Current medical education in India is subject-centred and time-based with a piecemeal approach. The goal of the CBME curriculum is to develop an IMG who is empowered with the roles of a good clinician a good leader, professional well as a lifelong learner. This new curriculum is more focused on early clinical exposure, integrated teaching, attitudes, ethics, communication-directed learning, and problem-based learning[3].

CBME emphasizes a learner-centric approach to education which triggers the Indian medical graduate to acquire him with medical knowledge to solve real-life problems within the community. The implementation of CBME within the Indian medical colleges will help all the learners to raise

their level of competency to face the real-life challenges in a better way, in India this transition towards CBME is in the early developmental stage.

Strength And Novelty Of CBME Education: The CBME based education provides evolutionary educational thinking to the students as well as the faculty. It emphasizes individualized learning of the competencies stage by all the students, by providing them to achieve the task at their own pace without being compared to the other fellow students and without any peer pressure. It provides an opportunity to master the essential clinical skills that are indispensable for good clinical practice in the community.

In this new medical education system, the role of faculty will be "guide by the side" rather than "the sage on the stage"[3]. It Incorporates, teaching-learning methods like small group discussion that is essential for active learning and participation. The teaching is based on well-defined learning outcomes which are measurable at the individual level. It ensures quality health care by fashioning Indian Medical graduates who are equipped with quality skills to serve the health care needs of the community.

Development Programs (FDPs): Faculty members play a significant role in the successful implementation of CBME. FDPs play a vital for the operative evolution of old teaching methods towards CBME. To renovate medical education there is an utter requirement of time-consuming conversion and during this transition phase, there will be a requirement of an alliance of new as well as existing teaching methods.

FDP is defined by Sheets and Schwenk as ''any planned activity to improve an individual's knowledge and skills in areas considered essential to the performance of a faculty member in a department or a residency program" [4]. The need of the hour is to step beyond the apprehension and to select a practical and justifiable approach for the implementation of this program.

Challenges And Obstacles To Be Addressed: The challenges of faculty development are vast and the utmost challenge of these is regarding the training of the medical teachers (Sectish et al. 2004)[5]. First and foremost, the medical teachers are required to accept as well as to understand the new paradigm shift. They will also need to identify the changes in other domains of medical practice than only knowledge. There is a need of imbibing the teaching attitudes with beliefs and demonstration of skills to the learner. There is also a need of developing new teaching techniques as per their respective resources.

On an institutional level, the acceptance and acknowledgment of new concepts and faculty training will be required. Scheele et al (2008) defined that the adoption of a CBME system requires ''a careful introduction with much attention to faculty development''[6].

Roles Of Indian Medical Graduate (IMG): The new curriculum has defined the five main roles of an Indian medical graduate. An IMG must be a good clinician with preventive, promotive, palliative, curative and must be able to provide holistic care at the community level with a compassionate approach. He should be a good communicator as he needs to communicate with patients and staff families. IMG must-have qualities of a leader as he has to lead the health care team. He must have a professional attitude as he should follow the ethics and be accountable. He must be a lifelong learner for the continuous need for improvement as a doctor[8] (Figure 1).

Figure1: Roles of Indian Medical Graduate

Material & Methods: This single centric cross-sectional study was conducted N.C. Medical College, Istana Panipat. A validated questionnaire was circulated using an online platform [Google forms] as well as offline mode.

The authentication process was done by external expertise. There were 2 sections in the

questionnaire- Section A dealt with the informed consented to the study could access Section B which investigated attitude and perceived fences to execution of CBME in our health system. Only fully completed forms could be successfully submitted. (Questionnaire is attached) The study period was July 2021 to November 2021.

Assuming that 50% of participants were aware of CBME. All teaching faculty presently serving in NC Medical College were eligible to participate.

However, only those with a minimum of 2 years of teaching experience were included. Faculty presently on leave for > 6 months or psychotropic support or medications were excluded. The study team regularly scrutinized the data collection process and met periodically to review the study conduct and computing of data.

At the end of the study period, the coded and consolidated data were analyzed using IBM SPSS version 22. Section A containing socio-demographic data was analyzed using descriptive methods of frequency such as a percentage.

Results: A total of 50 teaching faculties, we acknowledged 48 questionnaires were complete. Among the study sample, all 48 faculties had undergone both training programs, the most common being CISP [Curriculum Implementation Support Program] (Table 1), and their perception of major challenges based on questionnaire interpretation are as follows, is there is a need for new curriculum (plan) 96% faculties accepted this with 4% declination.

Does CBME favors skill development again a positive response of 96% of faculties accepted consent of the participants. Those who this with 4% declination. The next question was is the addition of integration is essential in the new curriculum again a positive response 96% of faculties accepted this with 4% declination.

Moving towards the next question in the questionnaire Is the addition of AETCOM essential in the new curriculum most of the faculties were agree on this point so again 96% of faculties accepted this with 4% declination.

The next question was- Shall supplementation of the new curriculum be a challenging task for teaching faculty? 90% of faculties from pre-para and clinical were agreed but 10% was totally against this. The next question was from the questionnaire was- Is the new time mapping sufficient for the completion of Pre/Para clinical subjects, there were 31% of the response was negative and 69%response was positive on this question.

Moving towards the next question- Is it possible to conduct OSPE sessions in examination with current faculties in the department; we have noted 67% positive response and 33% negative response. Now completing the questionnaire- the next question was- Will it make IMG more confident 58% positive response as well as 42% negative, after this last question-Was will it make the curriculum more interesting the response was 58% positive and 42% negative.

Completing the questionnaire, the last question was - Will IMG have a better understanding of the subject the response was 88% of faculties agreed with 13% declining this thought (Table 1, Graph 1).

Graph 1: Responses Received Based On Questionnaire

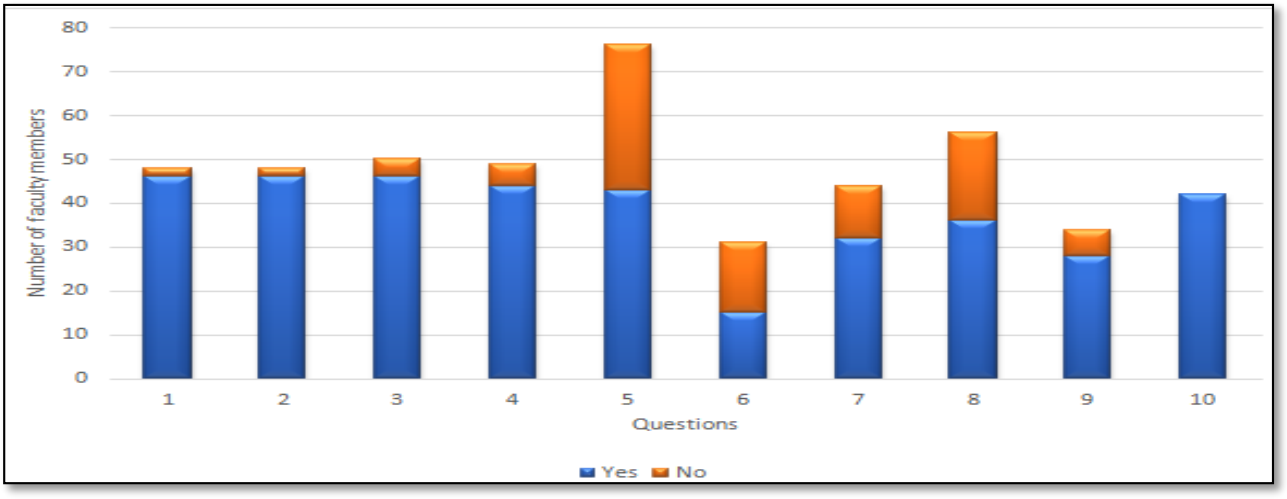

Table 1: (Responses Received Based On Questionnaire) Response Table

Q	1	%	2	%	3	%	4	%	5	%	6	%	7	%	8	%	9	%	10	%
Y	46	96	46	96	46	96	44	92	43	90	15	31	32	67	36	75	28	58	42	88
N	2	4	2	4	2	4	4	8	5	10	33	69	16	33	12	25	20	42	6	13

Discussion: For the successful implementation of the new curriculum in Indian medical teaching which is the world's largest[9] teaching domain, the role of medical teachers in understanding and implementation the programs is essential.

In our study, we observed that most of the faculty members welcomed the new curriculum and even felt the necessity for a new curriculum.

The senior faculty members were hesitant and they declined any need for a new curriculum despite this most of them was in favour of continuing the old teaching curriculum.

Younger members were in support of the implementation of CBME based teaching plan as it is more systematic and refined.

Similarly, most of the faculty favoured the idea that it will be able to provide more skills to IMG.

Faculty members were in favour of AETCOM to add attitude, ethics, and communication skills to the graduate.

Few members also supported the idea that the implementation of the new curriculum will be easy and it will require only the rearrangement of the already existing teaching curriculum while another group of members considered it as a tedious and time taking task.

In the context of time mapping of the syllabus of pre and para subjects, nearly one-third of faculty members felt that allotted time is not sufficient for achieving the provided competencies.

For the assessment part, a few members were in favour of the idea that current faculty strength and infrastructure in the medical college is at par while most of them favoured the idea of increasing and empowering the medical college with more faculties and better infrastructure for the implementation of the curriculum.

A study by Kulkarni et al in 2020 found that the main issues in CBME implementation are a student to faculty ratio, poor infrastructure, time constraints, and lack of commitment, which supported the response[10].

The idea that IMG will have a better understanding of the subject the help of new curriculum accepted by most of the members while having a more confident IMG by the new curriculum was welcomed only by half of the faculty members while others had the impression that pre-existing system to be fairly sufficient to produce a confident IMG by the new curriculum.

Conclusion: There is an existing favourable environment for change from a traditional curriculum to CBME.

A maximum number of the faculty members of various medical colleges all over the nation are aware of the requirement and have attained a constructive attitude to enforce the educational reform.

Substantial shortcomings do exist in the system as in the form of workforce and infrastructure which need to be addressed by political commitment and administrative spearheading.

Solutions suggested were boosting faculty strength and numbers, revamping of infrastructure, reconsidering on new time framing, and additional administrative support further, so we can motivate students and faculty towards implementation of the new curriculum.

Suggestions: Charting The Course: The priority of the policymakers should be to plan and implement faculty development programs all over India as soon as possible. Moreover, quality research should be planned to identify the barriers to formulate changes for a successful implementation.

Figure 2: Questionnaire

Questionnaire Pre/Para departments **Date:**

Section A

Myself _____ have been explained regarding the study titled "How difficult is it to implement a Competency-Based Medical Education in India: The next steps?" I hereby give consent to participate in the study in fully conscious state of mind

Section B

PURPOSE: To evaluate effectiveness and problems faced during implementation of new CBME curriculum in NCMC College.

CBME: The next Steps	Yes	No
• Is there is a need for new curriculum (Plan)	☐	☐
• Does CBME favors on skill development	☐	☐
• Is addition of integration essential in the new curriculum	☐	☐
• Is Addition of AETCOM essential in the new curriculum	☐	☐
• Shall supplementation of new curriculum be challenging task for teaching faculty	☐	☐
• Is the new time mapping sufficient for the completion? Of Pre/Para clinical subjects.	☐	☐
• Is it possible to conduct OSPE session in examination? with current faculties in the department	☐	☐
• Will it make IMG more confident?	☐	☐
• Will it make medical studies more interesting?	☐	☐
• Will IMG have better understanding of the subject	☐	☐

Suggestions:

Name of the Faculty:
Designation:
Department:

Limitations Of The Study: This study was conducted among faculty members of a single center.

Their view may be similar and biased because of the similar working conditions.

It can be elaborated to a large zonal study for better sample size, which would be more informative.

Abbreviations: It is as follows.

- FDP: Faculty Development Programme
- CBME: Competency-Based Medical Education
- IMG: Indian Medical Graduate
- GMER: Graduate Medical Education Regulations
- AETCOM: Attitude And Communication
- CISP: Curriculum Implementation Support Program
- SDL: Self Directed Learning

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