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Challenges in Implementation of the Competency Based Medical Education (CBME)

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ABSTRACT

Introduction: Medical Education is under increasing pressure to more effectively prepare Physicians to meet the health needs of society. With its emphasis on individual, programmatic &Institutional outcomes, Competency Based Medical Education (CBME) has the potential to realign medical education with this societal expectation. Implementing CBME comes with significant challenges to create a conducive learning environment that supports competency-based progression by the Regulatory Authorities, to integrate medical education for appropriate delivery of Medical Care and to assess the expected outcome of training Institutions & health care systems thereby the performance can be measured. This study thereby assesses these challenges. **AIM:** To assess the challenges in implementation of the Competency Based Medical Education (CBME). **METHODS:** This qualitative study was assessed by Questionnaire method, the perceptions of the Pre & Para clinical faculties regarding the challenges in implementation of CBME were collected & analyzed by using descriptive statistics. This was compared with the curricular trends of traditional method. **RESULTS:** A total 25 faculties responded to the questionnaire. The parameters which enhances the learning in students were Foundation course (68%), AETCOM (48%), SDL(68%). In faculties there was increase pressure (68%) due to paradigm shift to CBME, despite sufficient time (60%) and reduced staff (36%) they were unable to complete the competencies & also the assessment pattern (48%) was not clearly defined. **CONCLUSION**: There must be a collaborative approach to overcome these challenges.

Key word: Competency, Curriculum, Medical Education, Learning Environment

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INTRODUCTION

Undergraduate medical education in India is undergoing a transition from traditional teaching and learning methods. The traditional medical education is structure and process-based system. The students are encouraged to acquire knowledge and assessment tools predominantly focuses to assess the knowledge acquired. CBME is an outcomes-based approach to the design, implementation, assessment, and evaluation of a medical education program using an organizing framework of competencies.[1]CBME aims to provides a learner centric platform for an Indian medical graduate (IMG) to achieve competence in knowledge, attitude, communication, skills and ethics.[2,3] Clinician, communicator, leader and member of the healthcare team, lifelong learner and professionalism are five core competencies that are identified in CBME in the Indian setup**.** Advantages of CBME are out come based learning, flexible time independent curriculum, formative and summative assessments with increased accountability of the IMG.[3,4] In teacher cantered traditional method teaching and learning was mainly confined to

classroom lectures and practical laboratories with knowledge-based assessment among the pre and para clinical departments. CBME is student-centered learning with stress on skills and higher-order cognition with workplace-based assessments including direct observations and daily logs.[5,6] CBME overcomes the multiple limitations attributed to the traditional mode of education delivery.[7]

CBME was implemented in 2019 across medical institutes in India. CBME involves major changes in teaching, learning and assessment methods. Education programs involve program planning, implementation, and evaluation.[1]Hence faculty must plan, prepare and implement a competency using an appropriate teaching method.[8] Appropriate assessment tools have to planned and implemented based on the competency. For faculty these are the key areas of focus. Faculty to student ratio, technical & financial resources with appropriate learning environment are other factors which play an important role for successful implementation of CBME.CBME mandates the faculty to reform their roles, that are in stark contrast to the traditional training methods. Practical, conceptual, and theoretical challenges in teaching-learning methods and assessments have been addressed through faculty training programs. Other challenges in implementation of CBME are administrative and logistics.[9,10] Once implemented feedback from faculty, students and administration with frequent revisions are essential. Continued faculty training programs are required for successful implantation of a program. Implementing CBME comes with significant challenges to create a conducive learning environment that supports competency-based progression, to integrate medical education for appropriate delivery of medical care to patients. Hence in this study we aim to assess the faculty perception regarding CBME along with the challenges faced during implementation.

METHODS

The present study was conducted among faculties of pre and para clinical departments from various colleges across Bangalore during October 2020 to November 2020. Using a structured questionnaire on Google form, we aimed to collect data on the perception of the pre and para clinical faculties regarding the challenges faced during implementation of CBME. The response was in the form of Likert Scale grading from 1 to 10. With least grade being disagree to the highest being strongly agree. All the data collected was analyzed using descriptive statistics. Results were presented in the form of percentage and represented through graphs.

RESULTS

The faculty perception regarding CBME along with the challenges faced during implementation was tabulated along with the questionnaire and results were tabulated below. A total 25 faculties responded to the questionnaire.

Table 1. Response from respondents towards CBME

S. No	Questions	%
1.	Usefulness of foundation courses	68%
2.	Pressure in faculties for change in teaching learning for CBME	86%
3.	Bridging gap between teaching & learning process in CBME	68%
4.	Bridging gap between teaching & learning process in traditional method	44%
5.	Time is sufficient to complete the CBME Curriculum	60%
6.	Staff sufficient to complete the portions in CBME	36%
7.	Students gain Benefit from AETCOM	48%
8.	SDL useful for students	68%
9.	Assessment of all the domains possible in CBME	52%
10.	Constructive feedback helpful in modifying teaching methods	68%
11.	Can students understand if we concentrate more on Must know things	48%
12.	Regular sensitization is required to update staff about CBME	88%
13.	Lack of clarity about assessment interval	48%
14.	Lack of clarity about the exam pattern for summative assessment	48%
15.	Students' performance is better in CBME	64%
16.	Increased the confidence of students	68%
17.	Difficult to shift from conventional method to CBME	68%
18.	Difficult to complete the competencies& finding learning resources	68%
19.	Financial & human resources are more required in CBME than conventional method	92%
20.	Training curricula & assessment tools are well defined in CBME	72%

Figure no.1: Perception of faculty towards students

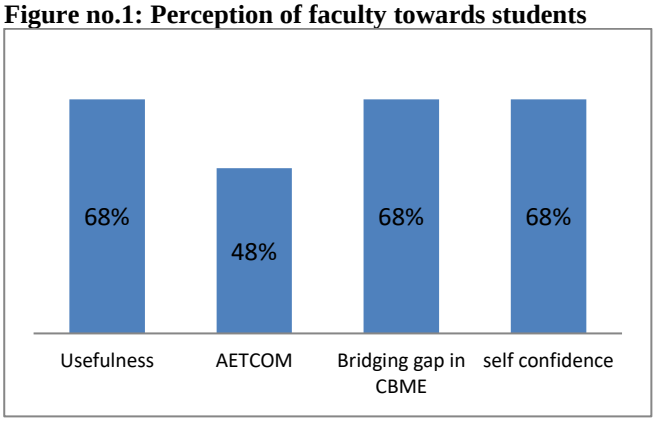


Figure no.2: Perception of faculty towards challenges faced during implementation of CBME

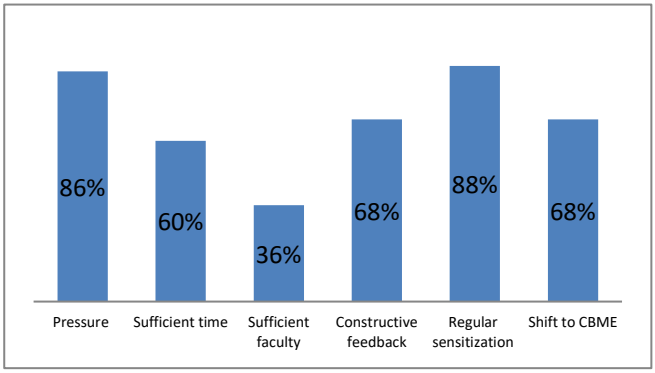


Figure no.3: Perception of faculty towards teaching learning methods in CBME

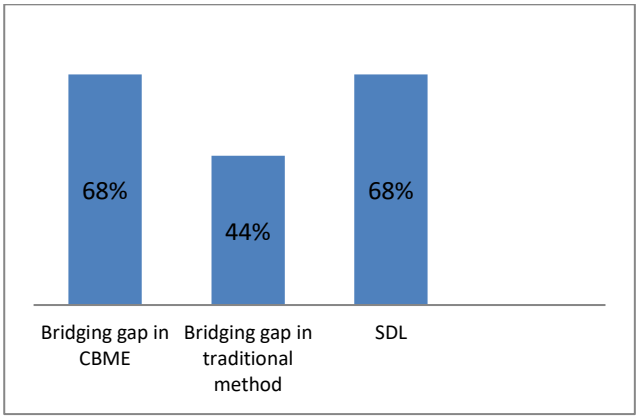


Figure no.4: Perception of faculty towards assessment in CBME

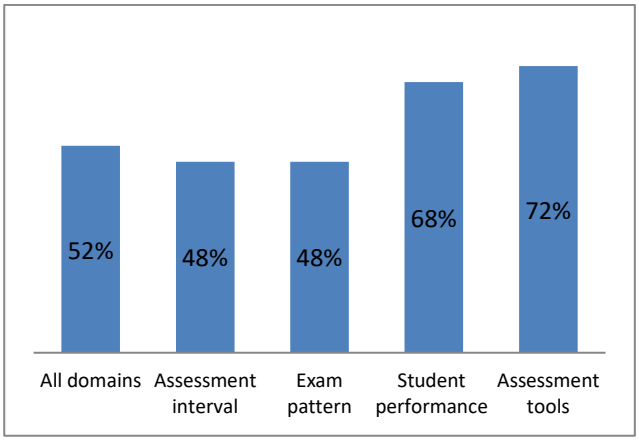
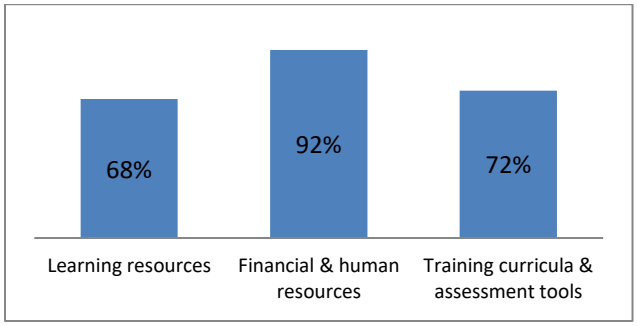


Figure no.5: Perception of faculty towards availability of resources for implementation of CBME



DISCUSSION

STUDENTS: In this study 68% of staff had the perception that the foundation course was useful for the students, which enhances them to get oriented to the new environment. This also created awareness in many aspects like Basic Life supports by simulation techniques, field visits which exposed them to real time patients at primary health centre, biomedical waste management, language, computer training and sports. 48% perceived that AETCOM was beneficial to students, which enhanced their attitude, ethics and communication skills towards patients, peers & faculties. 68% was under the perception that CBME bridged the gap between pre-clinical, para-clinical & clinical subjects which vertically integrated to make it more clinically relevant. Thereby improving the performance of students (64%). 68% of the staff was under the perception that the confidence level of students was increased due to foundation course, AETCOM (48%) & SDL (68%).

FACULTY: CBME has given the opportunity for the faculties to adopt a multidepartment approach to integrated teaching & thus helped them to understand the complex topics.[11] As staff pattern was reduced by the regulatory body the paradigm shift from conventional to the CBME was difficult (68%).It was difficult for the faculties to shift from tradition method to CBME because there was no clear cut guide lines about assessment.[12] Even though the curriculum & assessment tools were well defined (72%), with sufficient time (60%) but due to insufficient staff (64%) they were unable to complete the portions. This challenge could be addressed by innovative teaching methods, this increased the pressure among the staff (86%). This could be overcome by regular sensitisation and interaction (88%). Sensitization should emphasize on CBME, its principles & Pillers, its advantges,

how it is different from traditional method & need of transition.[13] The challenge could be addressed by constructive feedback in teaching & assessing methods (68%). 52% agreed that all domains were assessed. The formative assessment interval was not well defined (48%). 48% opined that the summative pattern of examination was not clear. The providers should be trained appropriately as the formative & summative assessment is essential tenet of CBME.[14] These challenges can be overcome by increasing the staff pattern by the regulatory body, periodic sensitisation, regular orientation and constructive feedback. The two pillars of the CBME are feedback from the faculties and reflections from the students.[7]

CONCLUSION

Collaborative approach among regulatory authorities, administration and faculty are essential to overcome the challenges posed with CBME. The successful implementation of CBME depends on the teamwork of dedicated faculties and addressing the challenges faced during the process which is essential to make Indian Medical Graduate globally competent.

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