

Challenges in the Implementation of CBME in Pharmacology

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Abstract

Background: Competency based medical education (CBME) is learner centred and aims to improve student competence and performance with focused student learning, knowledge application, and frequent, formative and output based assessments with inbuilt feedback mechanism. This all requires time & the present curriculum of pharmacology has to be completed in just 11 months which is difficult. To achieve the defined level of competency, 11 months are not sufficient. In some previous studies also, the participants have highlighted the issue that CBME competencies and number of teaching hours are not in accordance with subject priority.

Aims & Objective: The objective of this study through a questionnaire-based survey was to understand the views and opinions regarding challenges faced by faculty members across India during implementation of pharmacology curriculum under CBME.

Materials and Methods: A questionnaire-based cross-sectional study was conducted among various faculties of pharmacology across India. A total of 7 questions were framed in this survey to assess the opinion and view of various faculties about the implementation of CBME in pharmacology. A “Survey Heart” fill out form was distributed among various faculties after taking their informed consent. Descriptive statistics were used to analyse the data.

Results: Majority of the respondents (78.06%) in this study replied that Pharmacology syllabus cannot be completed in 11 months. Most of the respondents (80.61%) replied that it's too fast to complete the syllabus in 11 months on the teacher's part. Majority of the faculty members replied that the duration of pharmacology course under new CBME course should be extended to 24 months and examination to be conducted in third phase, to improve competency-based teaching.

Conclusion: Our study concluded that the faculty members are facing the challenge regarding shortage of time to complete pharmacology syllabus efficiently under new CBME curriculum. Most of the faculty members are of the opinion that 11 months are not sufficient to teach pharmacology in second MBBS. Also, the majority of faculties suggested to extend the pharmacology course to third phase for better implementation of CBME curriculum in pharmacology.

Keywords: Competency based medical education, Pharmacology, Challenges.

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Introduction

In 1970s the concept of competency based medical education was first introduced in medical literature [1]. Competency has been defined as “the ability to do something successfully and efficiently” [2]. CBME is an outcome-based model that requires integration of knowledge, skills, values and attitudes into various observable and measurable competencies [3-4]. CBME deemphasizes time-based training and provides more accountability and flexibility [2,5].

The traditional medical education was teacher centred, with focus on gaining knowledge and single-time, summative assessments. CBME is more learner centred and aims to improve student competence and performance with focused student learning, knowledge application, and frequent, formative and output based assessments with inbuilt feedback mechanism [2,5]. This all requires time & the present curriculum of pharmacology has to be completed in just 11 months which is difficult. To achieve the defined level of competency 11 months are not sufficient. In some previous studies also, the participants have highlighted the issue that CBME competencies and number of teaching hours are not in accordance with subject priority [1]. Many faculty members have raised the issue of lack of time period for some of the professional years and have expressed their inability to complete the whole syllabus [6].

The focus on the outcomes is CBMEs strength. Additionally, it acknowledges that every learner is different and progresses at their own pace. Since students were used to teacher-driven and time-based learning and may find it challenging to adapt to CBME. So, time is a crucial component needed to fulfil the aims of CBME. There is a chance that students may stop striving for excellence in their goal of achieving predetermined milestones. The deemphasis on time - based training may create a chaotic situation among learners [2]. There are many advantages of CBME, yet it is not

completely foolproof. Although CBME provides a smooth linkage between all levels of lifelong learning; its implementation poses many challenges. If these challenges are not properly addressed, it can negatively impact student’s learning environment [7]. As we are transitioning from traditional to new CBME curriculum so it is important to analyse the challenges faced by faculty members in its implementation [8].

The revised pharmacology curriculum is new and only a few studies are there to assess the challenges faced by faculty members. So, in order to address the above problems, we conducted a survey among various faculties across the country with the objective to see their opinion and views about implementing CBME in Pharmacology & extending pharmacology to third phase like forensic medicine.

Methodology

This was a questionnaire-based cross-sectional study. The study was carried out over a period of six months. A total of 7 questions were framed in this survey to assess the opinion and view of various faculties about the implementation of CBME in pharmacology. Apart from this an open-ended question regarding any other suggestions of faculty related to implementation of CBME in Pharmacology was asked. A “Survey Heart” fill out form was distributed among various faculties of pharmacology across India, after taking their informed consent. The responses were entered in MS Excel and descriptive statistics were used to analyse the data in terms of frequency and percentage.

Results

A total of 196 respondents filled the questionnaire. Responses to the questionnaire are tabulated in Table 1. Most of the respondents 153 (78.06%) in this study think that Pharmacology syllabus cannot be completed in 11 months. Only 29 (14.80%)

respondents think that pharmacology syllabus can be completed in 11 months. All 196 respondents think that pharmacology is backbone of clinical practice. Most of the respondents (77.55%) think that CBME curriculum is difficult for the students to understand in 11 months. Similarly, most of the respondents 158 (80.61%) think that it's too fast to complete the syllabus in 11 months on the teacher's part. Most of the respondents (60.71%) think that pharmacology university exam should be kept with community medicine in third phase. Most of the

respondents 155 (79.08%) think that quality of pharmacology education will deteriorate further if pharmacology course is restricted to 11 months. Similarly, most of the respondents 141 (71.93%) think that think that pharmacology competencies can be learnt by students well if the duration of course is increased to 24 months. Besides this some other important suggestions were given by respondents like the pharmacology training should be extended to 3rd and 4th year of MBBS and emphasis on clinical pharmacology should be given.

Table1: Responses to the questionnaire

Questionnaire	Yes	No	Sometimes
1. Do you think pharmacology syllabus can be completed in 11 months ?	29 (14.80%)	153 (78.06%)	14 (7.14%)
2. Do you think pharmacology is back bone of clinical practice ?	196 (100%)	-----	-----
3. Do you think CBME curriculum is difficult for the students to understand in 11 months ?	152 (77.55%)	25 (12.75%)	19 (9.69%)
4. Do you think it's too fast to complete the syllabus on teachers part ?	158 (80.61%)	21 (10.71%)	17 (8.67%)
5. Do you think pharmacology university exam should be kept in third phase ?	119 (60.71%)	57 (29.08%)	20 (10.20%)
6. Do you think that quality of pharmacology education will deteriorate further if pharmacology course is restricted to 11 months ?	155 (79.08%)	28 (14.28%)	13 (6.63%)
7. Do you think that pharmacology competencies can be learnt by students well if the duration of course is increased to 24 months?	141 (71.93%)	35 (17.85%)	20 (10.20%)

Discussion

In our study most of the faculties felt that time allotted to Pharmacology is not sufficient to complete the syllabus. The results of our study are similar to a study by Rehan *et al* in which about two third of faculty members stated that time allotted to pharmacology course is insufficient to complete the syllabus [9]. This is in accordance with a study by Siddanagoudra *et al* in which more than 60 percent of faculty members were of opinion that in CBME competencies and number of teaching hours are not in accordance with subject priority [1]. All the participants in this study felt that pharmacology is backbone of

clinical practice. Most of the faculty members responded that CBME based pharmacology curriculum is difficult for the students to understand in 11 months and teachers have to hurry to complete the syllabus which can compromise with the quality of teaching. Our findings were in accordance with a study by Siddanagoudra *et al* in which more than 80 percent of participants felt that CBME requires more resources (more time, more faculties, more infrastructure) than traditional teaching [1]. In a previous study by Teli *et al*, time constraint to conduct CBME as per schedule and timely assessment of each session was

highlighted as one of challenge by the faculties [10]. Most of the faculty members were of opinion that duration of pharmacology course should be extended to 24 months and final examination should be held in third phase. Most of the faculty members opined that pharmacology competencies can be learnt well if the duration of pharmacology course is increased to 24 months. Similarly in a short communication by Shrivastava *et al* the issue of concern of faculty members regarding lack of time and their inability to finish entire course for some professional years has been raised [6]. The results from our study suggested that duration of pharmacology course under new CBME syllabus needs to be reviewed again to improve the quality of teaching and learning.

Conclusion

Our study concluded that the faculty members are facing the challenge regarding shortage of time to complete pharmacology syllabus efficiently under new CBME curriculum. Most of the faculty members are of the opinion that 11 months are not sufficient to teach pharmacology in second MBBS. Also, the majority of faculties suggested to extend the pharmacology course to third phase for better implementation of competency-based curriculum in Pharmacology. However, more such studies are needed to understand the other challenges faced by faculty members in implementation of CBME curriculum of Pharmacology to reach a consensus.

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