



Competency Based Medical Education: Prospect and Pitfalls

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Abstract

With the raising demand to make our existing educational system relevant, reliable and realistic to the ground situation urgent educational reforms are essential. Competency based medical education one such tool which will enable us to improve the quality as it is not merely attainment of competency but an expertise (specified) in the area. These two aspects are an important consideration in designing the formative and summative assessment in competency-based education.

As we progress towards developing CBME Prior sensitization of the faculty with proper motivation is absolutely essential. An initial identification of general and specialty competencies may be a good initiating point. Assessment is crucial in shaping the outcomes and success of a curriculum and hence must be properly planned.

Keywords: Competency; Competency Based Medical Education

Introduction

Of late there is a growing realization across the country and particularly among the medical fraternity that medical education is failing in its responsibility to improve the health care system of the country and the mushrooming proliferation of medical colleges of dubious distinction has in fact, further compounded the problem [1]. CBME is of the means which has been suggested to mitigate the existing problems and secure the future of medical students so that they can confidently discharge their responsibility towards the society.

The Lancet commission on medical educational reforms mentions three categories of generational reforms which include: starting from informative (with focus on information plus skills to produce “experts”) moving on to formative (focus on socialization and values to produce “professionals”) to transformative (with focus on leadership attributes to produce “change agents”) [2]. Before we proceed further, the following table will highlight the important feature of CBME and the differences with respect to the traditional method of teaching.

General characteristics	
Competency based	Traditional
Cognitive	Behavioral
Outcomes- based	Content - based
Demonstrating independent practice	Meeting clinical requirements
Successive stages toward mastery	Accumulation of facts, concepts, skill
Each student gets the amount and kind of instruction needed	All students receive same identical instruction
Instruction varies and learning is constant	Instruction is constant and learning varies
Achievement is skewed to the right	Achievement is normally distributed

Implementation of CBME includes the following steps a) benchmarking for assessment. b) Coordinating medical student and PG residency program c) expanding programs for faculty development d) creating better systems of student assessment e) garnering resources to implement a learner-centered PG/residency programs f) infrastructure for processes needed g) change in teacher and student/learner ethos. CBME is based on the following parameters

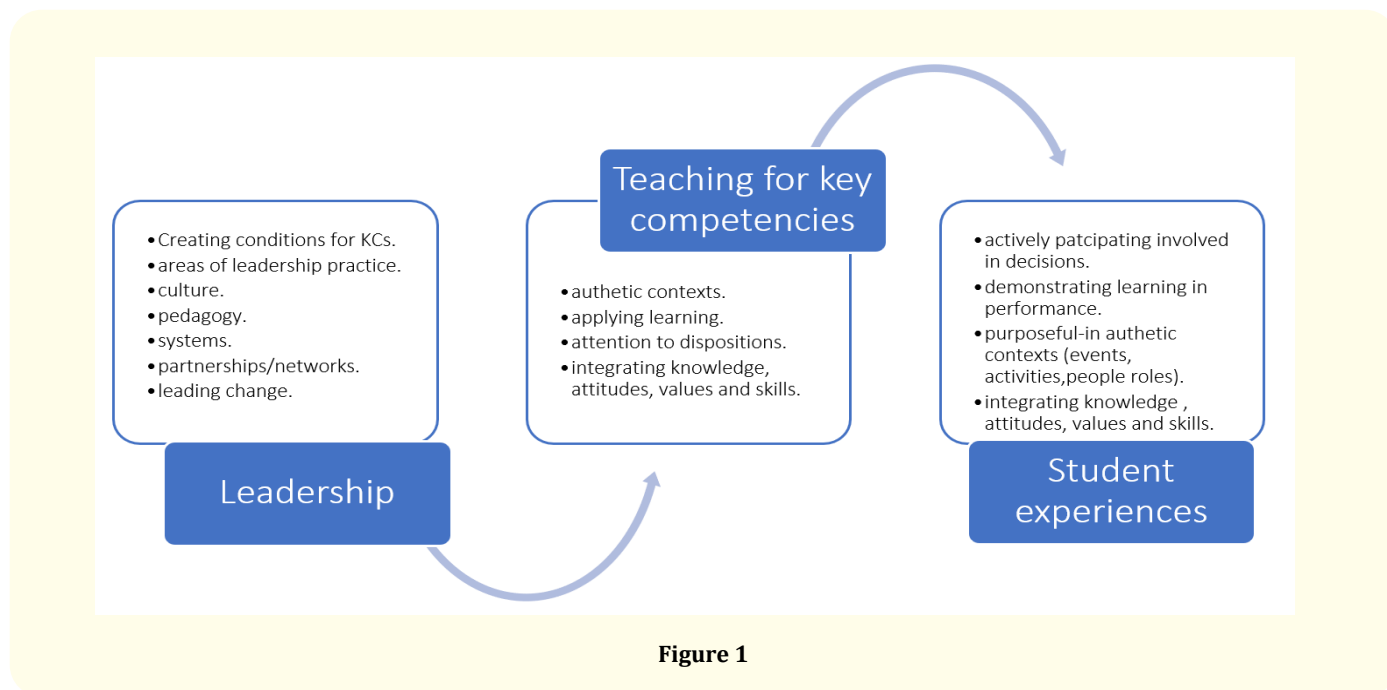


Figure 1

a) identification of competencies b) content identification and program organization c) assessment planning and program evaluation [3].

The following table will summarize the CBME as it progresses across the various steps.

	Competency based education	Traditional model education
Advancement	Students advance based on mastery	Students advance based on overall course grade (i.e. coursework, projects, homework, participation, tests).
Pacing	Students' progress at different paces in different areas and have multiple opportunities to demonstrate mastery.	Students move at pace set by instructor. If they don't master content, they get a low grade and move forward with the class (or fail and repeat)
Instruction	Instruction is developmentally appropriate, customized to match learning needs, and increasingly challenging.	Instruction is standardized for the whole class and learning standards are designated by grade level.
Time	Learning time is flexible and designed to encourage extended learning opportunities, added support, etc.	The schedule is one size fits all, with little to no individualization or flexibility.

The traditional system of teaching is characterized by a) is built upon an institutional fixed mindset b) is time-based c) depends on extrinsic motivation d) has high variability in how teachers determine proficiency e) is organized to efficiently deliver curriculum.

students c) assessment is meaningful and a positive learning experience d) students receive timely and differentiated support e) students develop and apply a broad set of skills and dispositions.

Whereas five key elements of Competency Education a) students advance upon demonstrated b) competencies include explicit measurable, transferable learning objectives that empower

Hence, we conclude by noting that main benefits of CBME include: a) a new paradigm of competence. b) a new focus on assessment c) a method to promote learner centered curricula d) a way to deemphasize time based curriculum [4].

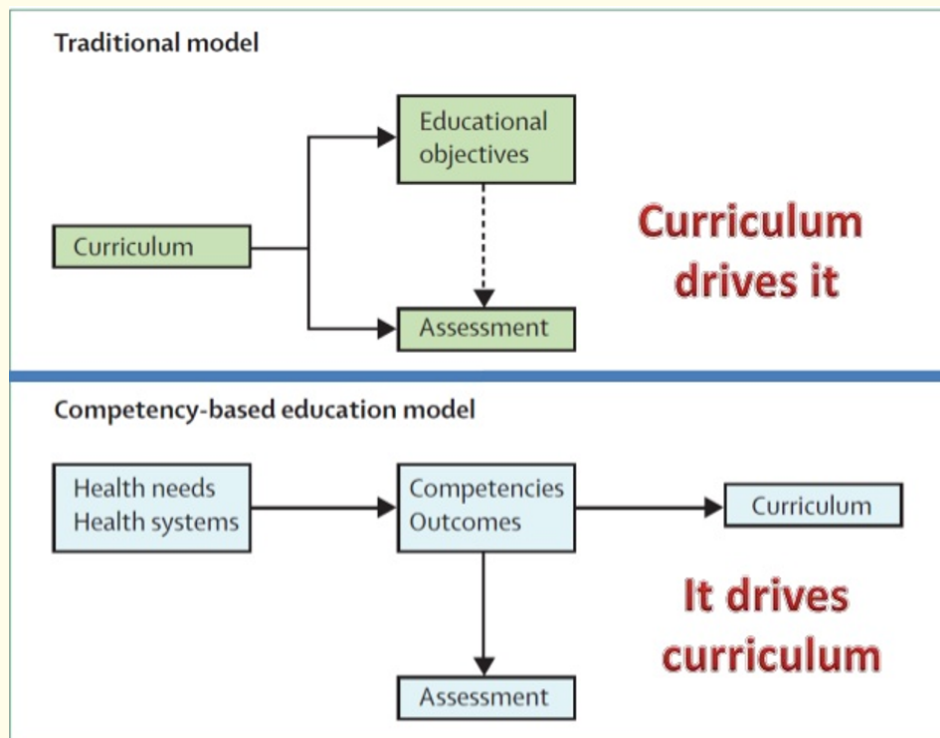


Figure 2

Competencies, Milestones and EPAs are three important pillars which are inter-related inter-dependent and inter-linked for the successful implementation of CBME.

However, implementation of CBME remains a major challenge as it calls for departure from the traditional approach of organizing the curricular components around educational objectives along

Competencies, Milestones and EPAs

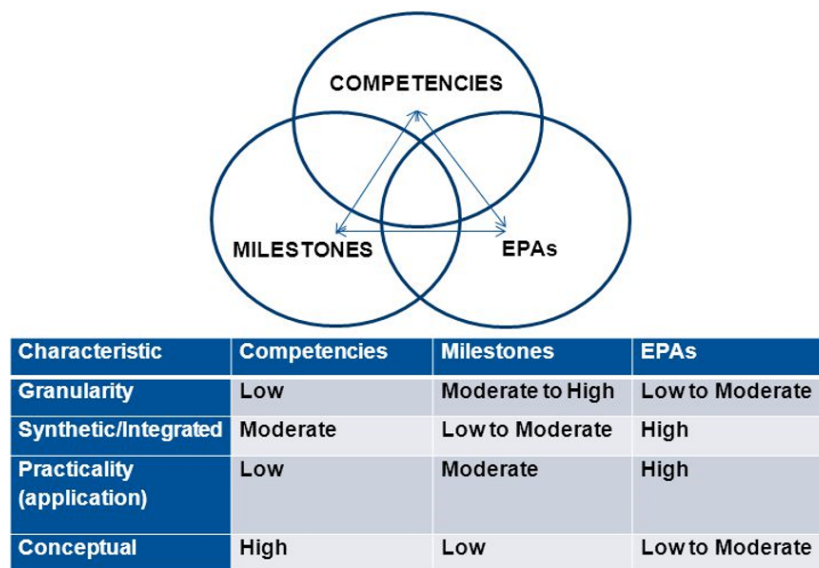


Figure 3

with requirement for allocation of substantial financial and logistical resources including the development of human resources [5].

Conclusions

While concluding we would like to mention that CBME has emerged as one of the priority areas of medical educational reforms and the same has been highlighted by their vision document. However, while implementing CBME various challenges can arise which include a) the need for new educational technologies, b) Inertia and lack of resources, c) faculty development for the new teaching learning methods and assessment [6].

Creating better system of evaluation will be another area of challenge for which a step by step approach will be more suitable. The general competencies can be identified first followed by specialty competencies requires combined and organized efforts by the faculty. To understand the importance of CBME can be a beginning for the process to change and for this, it is crucial to sensitize and prepare the faculty for change [7].

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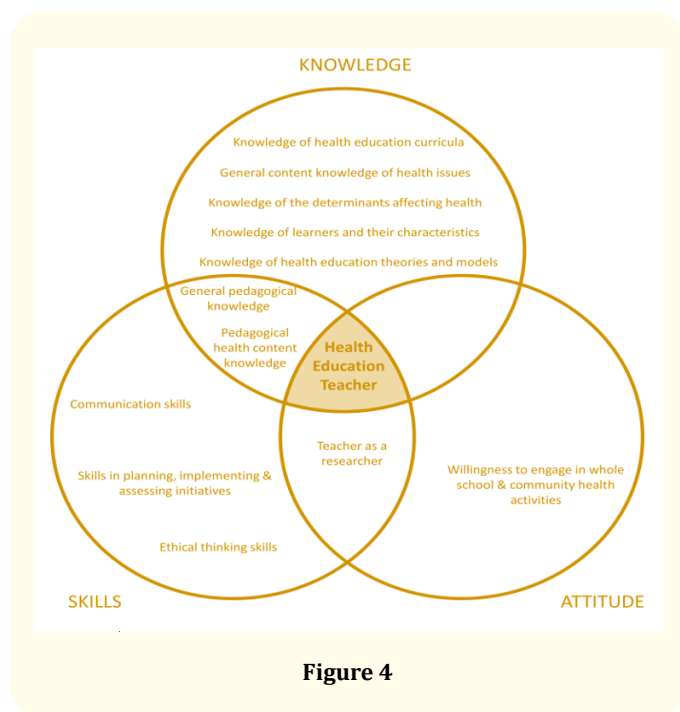
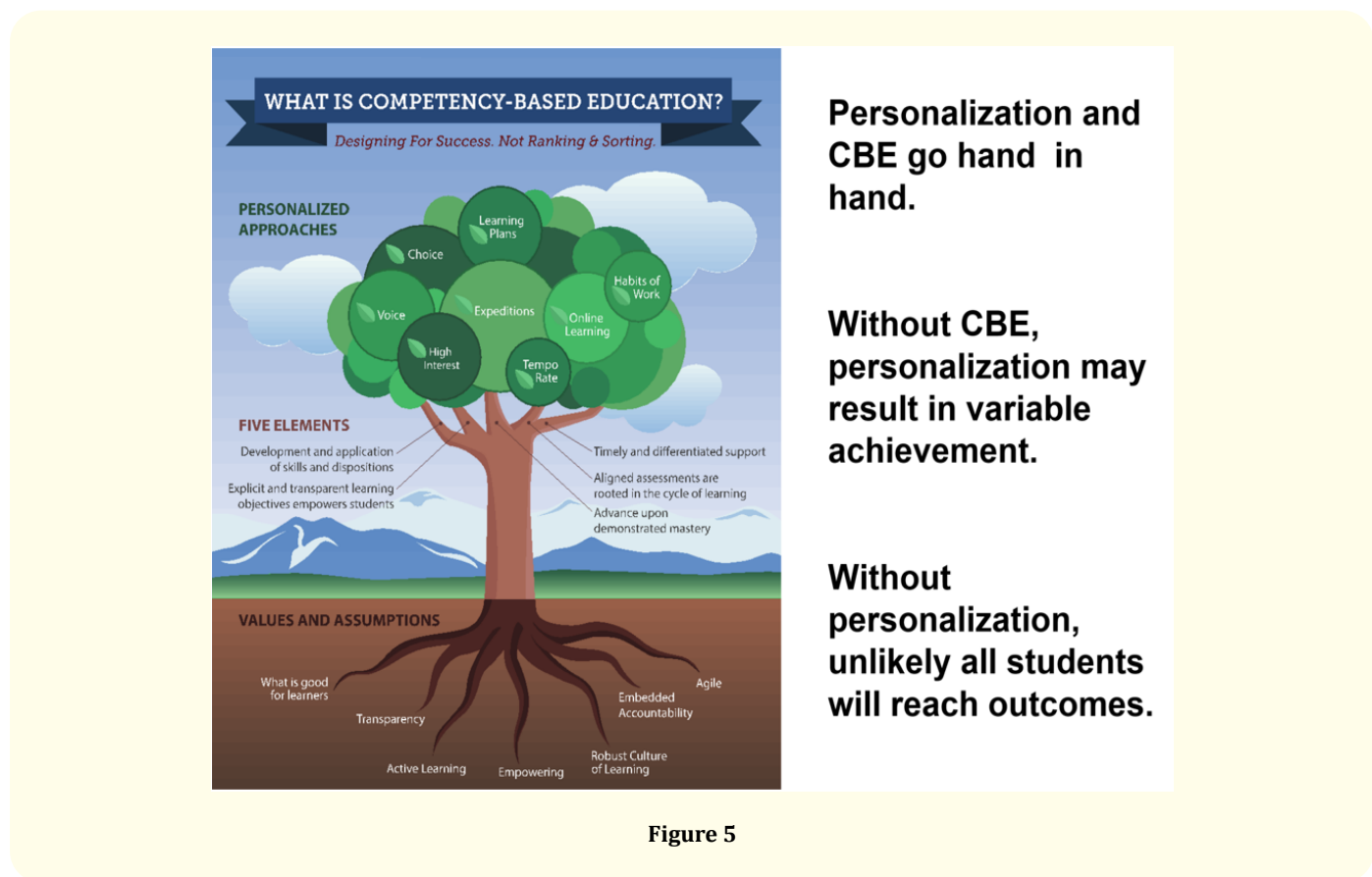


Figure 4



Personalization and CBE go hand in hand.

Without CBE, personalization may result in variable achievement.

Without personalization, unlikely all students will reach outcomes.

Figure 5

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