Review Article

Foundation course for first year MBBS students in India – Disparity between its intentions and implementations

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International Archives of Integrated Medicine, Vol. 7, Issue 8, August, 2020.
Available online at http://iaimjournal.com/
ISSN: 2394-0026 (P) **ISSN: 2394-0034 (O)**
Received on: 18-07-2020 **Accepted on:** 24-07-2020
Source of support: Nil **Conflict of interest:** None declared.
How to cite this article: M. Senthil Velou, E. Ahila. Foundation course for first year MBBS students in India – Disparity between its intentions and implementations. IAIM, 2020; 7(8): 91-96.

Abstract

Medical Council of India has introduced Competency-Based Medical Education to produce Indian Medical Graduates who can function efficiently as Basic doctors and Physicians of the first contact. One of the important components of CBME is the introduction of Foundation course for one month to all new entrants to the medical course before they start their formal training in medical education. The primary aim of this course is to assist students to have a smooth transit from school life to professional college life. To understand their course, the students are sensitized with various modules that describe various aspects of medicine. Though the document on CBME was prepared by doyens in the medical field with years of toiling, it is only natural for any program to face difficulties when it comes to the implementation phase. Since the CBME and related courses are only its infantile stage, it is unmerited to complain about its lapses. This article discusses some of the gaps that exist between the intention and implementation of CBME, with the sole aim of seeing the CBME as a flawless endeavor.

Key words

Medical Council of India, Competency-Based Medical Education, First year MBBS.

Introduction

Change is glaring at us from all walks of life. The lifestyle has changed. Educational technology has become modernized and medical knowledge has been growing at supersonic speed. What has not kept pace with these changes is medical curriculum, especially in India until 1997, when Government of India

under the direction of Medical Council of India (MCI), brought out a gazette notification on "Regulations on Graduate Medical Education" [1], which is considered as an important milestone in the history of medical education in India. The next major overhaul in medical education is the introduction of Competency-Based Medical Education (CBME) in 2019 [2]. It is introduced to produce Indian Medical Graduates (IMG) who can function efficiently as a Physician of the first contact. To achieve its learning outcomes, CBME rolls out crucial strategies in its vision document. One of the significant modifications it advocates is the implementation of a one-month long Foundation course for fresh medical students entering medical colleges at the beginning of the MBBS course. Students enter into a medical college from different walks of life. They start their undergraduate journey with little knowledge about their course and its future. They encounter many hurdles in the form of cultural and socioeconomic differences, language proficiency, adjustments to the new campus environment, and challenges of the new curriculum [3]. The Foundation course is designed specifically to address most of these issues so that students can have smooth metamorphosis from a highly protected school environment to a challenging medical professional college environment. During this one month, they imbibe the basics of medicine in terms of its history, the role of IMG in the society, community orientation, National health needs and its policies, Universal precautions, and Immunization, competencies expected of a doctor, stress and time management, importance of balanced life, skills in information technology and language, communication skills, etc. [2], and with completion of it, they will embark on their journey of life long medical education with confidence and orientation. Though the intentions of the Foundation course are good, this review article discusses the gap between its purpose and performance. Since the CBME and Foundation course is only in its infantile stage at present, it is unmerited to complain about its lapses, but at the same time as a responsible stakeholder, every one of us needs to contribute to make the CBME a flawless endeavor.

The foundation course overview

In Western countries, students enter medical colleges after spending one or two years of college education after they have completed their school's education. But in India, the system is different as the selection process requires plus two or its equivalents as the eligibility criteria to enter into the medical course. This creates an intense necessity of the cooling-off period in the form of a Foundation course that provides students with enough time and environment to shift from school setting to a professional college ambiance [4]. Stress is a normal human reaction when a person is faced with a situation where he is not sure about the future course of action. Similar is the stage when students enter a professional medical college, where other factors inherent to professional colleges like ragging, additional financial burden, etc., add to their stress level [5-7]. The prime goal of the Foundation course is to equip the students with required knowledge and skills that will assist him to get acclimatized to the new professional environment which would be a strong platform for a life-long career in the medical profession [8]. The overall course design comprises of a) Orienting the students to all aspects of the medical college milieu; b) Equipping students with certain basic, but important skills required for patient care (First aid and Basic Life Support) and enhancing communication, language, computer, and learning skills and c) Providing opportunity for peer and faculty interactions and an overall sensitization to the various learning methodologies [8]. The MCI has proposed to conduct the Foundation course for one month for the fresh medical students before they start their first-year basic science program. The duration for teaching Anatomy, Physiology, and Biochemistry along with Community and Family Medicine was reduced from 18 months to 12 months when MCI shortened the first professional in 1995 to give more hours to paraclinical and clinical science subjects [9].

Now with CBME, the basic medical science departments have been asked to dedicate 30 hours each (total 90 hours) for teaching Early Clinical Exposure for students before they go for clinical postings in their second professionals [10]. To accommodate this extra one month, either the first-year course must start one month earlier or the exams for the first year should be conducted one month later so as not to trespass on the already abridged first-year curriculum schedule. But to circumvent this issue, medical colleges condense the duration of the Foundation course to one week or ten days [11-12] thus uniformity in conducting the course for one month in medical colleges across the nation is lost. Whether the objectives of the course were met within that short duration of the program, needs to be analyzed in the long run, and if it achieves, then a shorter version of Foundation course can be recommended instead of one-month duration, as half of the students and faculties felt the same in various other studies [13,14]. The doyens in medical education of the nation would have toiled for years to come out with such a visionary document to revamp the medical education in India. Any program will succeed only if the vision and the action match each other. Since there are no measures from the apex agency to monitor how effectively the program (Foundation course) are implemented in the medical colleges, the expected benefits to the students out of these programs remain obscure as literature search indicate that many of the Foundation courses are not run as per the directions of MCI [15] though the MCI has stated that institutions are expected to abide by the general guidelines, local changes can be made depending on the context and requirements. As mentioned above, the duration of the course is not run for one month in many colleges, it is one week or ten days in most of the instances [10, 11]. When a course is designed to run for a month if shortened in its duration, obviously all contents may not get represented adequately.

Table - 1: The objectives of the foundation course.

Sr. No.	Broad objective	Specific objectives
1	Orient the learner to	The medical profession and the physician's role in society
		The MBBS program
		Alternate health systems in the country and history of medicine
		Medical ethics, attitudes, and professionalism
		Health care system and it's delivery
		National health priorities and policies
		Universal precautions and vaccinations
		Patient safety and biohazard safety
		Principles of primary care (general and community-based care)
		The academic ambiance
2	Enable the learner to acquire enhanced skills in	Language
		Interpersonal relationships
		Communication
		Learning including self-directed learning
		Time management
		Stress management
		Use of information technology
3	Train the learner to provide	First-aid
		Basic Life Support

Table - 1 shows the various broader objectives and specific objectives of the Foundation course. It is a comprehensive list expected to provide a purview to students about their education, their role in society, their professional life, and the challenges ahead. It also provides space for the acquisition of basic skills for any medical professionals like First-aid and Basic Life Support. The document on Foundation course by MCI also gives the breakup of the total duration of course. Of the total duration of 175 hours, the split-up is as follows:

a)**Orientation module** that deals with an introduction to institution/campus/facilities, the role of doctors in the society, History of Medicine and alternate systems, IMG roles/overview MBBS curriculum various career pathways and principles of family practice occupies **35 hours**;
b) **Skill module** that deals with First Aid, BLS, Universal precautions, Waste management, Immunization, and Documentation occupies **35 hours**;
c)**Community orientation module** that deals with National Health goals and policies/ health Care systems/ community health and interactions with patients and families, Communities that occupies **8 hours**;
d) **Professional development and Ethics module** that deals with the concept of Professionalism and Ethics, Whitecoat Ceremony, Professional behavior, and altruistic behavior, Working in a health care team, Disability competencies, Cultural competence, Stress management, Time management, Interpersonal relationship and Learning that occupies **40 hours**;
e)**Enhancement of Language and Computer skills module** that deals with Communication, Local Language training, English Language Training, and Computer Skills training that occupies **40 hours**;
f) **Sports and Extracurricular activities** for **22 hours**.

Of the total 175 hours, 40 hours is dedicated to enhancing language and computer skills. But this skill module was regarded by students as one of the least useful elements in the course as many students are good at conversing in English [11, 13, 15]. Regarding computer skills it may be due to many students are already having good knowledge and skills in using computers and other Information Technology tools [11, 13, 16, 17]. The least attention of students in this module may also be due to the person handling, as certain topics, like Language and Computer skills need specialists and not regular medical faculties [18]. More training may be focussed on equipping students with skills in preparing PowerPoint slides, which may be practically useful for students in a seminar presentation or paper presentation in student conferences. Another segment that produced an insignificant response in many studies is the history of medicine [10, 13, 14] may due to its didactic way of presentation. This topic may be made interesting by involving students in the form of student oral or poster presentation or mini quiz with prior notice. Some segments included in the Community orientation module like National Health goals and policies [14]; Medical Ethics session in Professional development and Ethics module are regarded as complex subjects which are difficult to assimilate at this level of maturity of students [10, 19]. Moreover, the Department of Community and Family Medicine in the first year and the Department of Forensic Medicine in the second year would be covering these topics when the students start their formal classes, and exposing the students to these topics at this level seems redundant [14]. Sessions on Disability competency also was considered as complex ones and above their head by students [15]. Surprisingly, sports and extracurricular activities module has received a mixed reaction with some segments favoring while others felt that it is unimportant. One reason may be that the facilities for sports are lacking in most of the medical colleges in India, even though we lecture about the importance of maintaining good physical health for health professionals, or the other reason may be that students are not finding

enough time to devote to sports and extracurricular activities due to heavy academic load.

Discussion

The audience gets benefited most if the content of the program if delivered by the expert in the field. In the era of Information Technology, information is readily available with a simple click of keys of the computer. That does not mean that anybody can deliver a session if they are proficient with the language. Studies have shown that students as well as faculties felt that most of the sessions are handled by in-house faculties and subject experts should be roped in to handle sessions like stress management, time management, language, and computer skills [18] which are not medical faculties realm. The mode of delivery of the content must also be in concordant with the learning outcome of the program or course. For sessions like First aid and Basic Life Support, initial briefing with lectures and videos should be followed by a demonstration with required amenities as per the document of MCI [2]. The delivered content should be assessed with appropriate tools to evaluate the success of the program. If the used tool is not pertinent for what it intends to measure, then we end up with either false positive or false negative results, both of which are prejudicial to the program. For delivering and assessing sessions like First aid and Basic Life Support, MCI recommends the use of adult, child, and infant Basic Life support mannequins. The availability of this paraphernalia in most of the medical colleges for training purposes is debatable as there is no specific recommendation in the curriculum for training medical and paramedical students in BLS/CPR (Basic Life Support/Cardio Pulmonary Resuscitation) training in India [20]. It is common knowledge for those who are in the medical field that much of the life-saving equipment are only hired to tide over MCI inspection in some medical colleges [15]. None of the studies included in this review has assessed the "show and show how" capability of the students when they were assessing the success of the skill module. Instead only "know and know-how" capacities of the Affective domain were assessed and analysed. There is also a dearth of studies on whether the initial training in First aid and BLS/CPR during the Foundation course was followed up regularly to examine the retention of skills as only on regular repetitive assessment students found to have retained and improved their skills on CPR [17] and skills of CPR were retained up to a year only following a refresher course after initial training [2].

Summary

The Foundation course introduced by the MCI through its CBME curriculum is intended to acclimatize the students to the milieu of medical professional college. The course has been designed to contain different modules to familiarize the students with various aspects of medicine. Enforcing any new changes in the medical curriculum that has been regulated by old reforms will be faced with many practical difficulties. This article highlights a few of those gaps that are existing between the intention of CBME's Foundation course and its implementation in Indian medical Institutions so that corrective measures can be exercised to make this wonderful endeavor of the MCI a success and make the students walk through the professional course with ease.

References

1. Gazette of India: Regulations on Graduate Medical Education 1997. Part III, Section IV: pp 17th May 1997; 1701-1726.
2. Medical Council of India. Competency-based undergraduate curriculum for the Indian Medical Graduate, 2018; 1:3-4.
3. Devi JN, Kumari AS, Murty DS. The Impact of Orientation Program for First M.B.B.S Students In The Transformation of Perceptual Learning into Experiential Learning –An Insight. IOSR Journal of Dental and Medical Sciences, 2016; 15(6): 40-45.

4. Basheer A. Competency-based medical education in India: Are we ready? J Curr Res Sci Med., 2019; 5: 1-3.
5. Al-Dubai SA, Al-Naggar RA, Alshagga MA, Rampal KG. Stress and coping strategies of students in a medical faculty in Malaysia. Malays J Med Sci., 2011; 18(3): 57-64.
6. Abdulghani HM, AlKanhal AA, Mahmoud ES, Ponnamperuma GG, Alfaris EA. Stress and its effects on medical students: a cross-sectional study at a college of medicine in Saudi Arabia. J Health Popul Nutr., 2011; 29(5): 516-22.
7. Shankar P., Karki B., Thapa T., Singh N. Orientation program for first-year undergraduate medical students: knowledge, attitudes, and perceptions. Education In Medicine Journal, 2012; 4(1): 57-63.
8. Medical Council of India (homepage on the internet). Vision in 2015. Available from http://www.mciindia.org/tools/announcement/M CI_booklet.pdf
9. Bijlani RL. Too little, too late. Indian J Physiol Pharmacol., 1998; 42: 1–2.
10. Priyadharshini M, Manisha K. Perception of Students on Foundation Course conducted for First-year MBBS students at AIIMS Bhubaneshwar. Ind J Comm & Fam Med., 2017; 3(2): 16-19.
11. Singh S, Sarmishtha G, Himanshu P. Foundation program for MBBS students at the entry-level: experience at an Indian Medical School. Southeast Asian J Med Edu., 2007; 1: 33-37.
12. Khilnani AK, Patel J, Khilnani G. Students' feedback on the Foundation Course in Competency-Based Medical Education Curriculum. Int J Res Med Sci., 2019; 7: 4408-9.
13. Sobti S, Gupta M, Gupta V, Gupta A, Parihar S, Singh V. Assessment of newly introduced foundation course for medical undergraduates: students' vs faculty's perspective. J Family Med Prim Care, 2020; 9: 3042-7.
14. Rohit D, Joshi KP, Suhasini P, Deepak J. Students' perception of foundation course – a new experience in the MBBS curriculum in India. Int.J.Med.Sci.Educ., 2019; 6(3): 1-7.
15. Chatterjee A, Majumdar S, Dey A. A study on the impact of the orientation program and foundation course at entry level on first-year MBBS students. Global J for Res Anal., 2020; 9(1): 62-65.
16. Aasha D, Devendra V, Dinesh K, Devendra M. Undergraduate Medical Students' Experience with Foundation Course at a Public Medical College in India. Ind Ped., 2020; 57: 261-263.
17. Vyas S, Joshi U, Sheth J. Perception of first MBBS students from a medical college in Ahmedabad, Gujarat about one month's foundation course during the year 2019. Natl J Integr Res Med., 2020; 11(1): 72-78.
18. Patel DC, Ahir MK, Nayaka TU. Evaluation of basic life support knowledge and the impact of basic life support training on pre-clinical and clinical undergraduate MBBS students. Indian J Clin Anaesth., 2019; 6(2): 198-202.
19. Ananthakrishnan N, Shanthi AK. Attempts at regulation of medical education by the MCI: issues of unethical and dubious practices for compliance by medical colleges and some possible solutions. Ind J Med Eth., 2012; 9(1): 37-42.
20. Nishiyama C, Iwami T, Murakami Y, et al. Effectiveness of simplified 15-min refresher BLS training program: a randomized controlled trial. Resuscitation, 2015; 90: 56–60.