

## Perception of 1<sup>st</sup> MBBS students and Medical teachers regarding Foundation Course introduced under Competency Based Undergraduate Medical Education in India

Dr. Samata Padaki<sup>1</sup>, Dr. Somashekhar Bijjal<sup>2</sup>, Dr. Srinivas Deshpande<sup>3</sup>

<sup>1</sup>Professor, Department of Physiology, Gadag Institute of Medical Sciences, Gadag , Karnataka

<sup>2</sup>Associate Professor, Department of Psychiatry, Gadag Institute of Medical Sciences, Gadag, Karnataka

<sup>3</sup>Professor, Department of Biochemistry, Gadag Institute of Medical Sciences, Gadag, Karnataka

Corresponding Author: Dr. Somashekhar Bijjal

### Abstract

**Background:** Gadag Institute of Medical Sciences, Gadag, with due respect to Medical Council of India's (MCI) new Curriculum Implementation Support Programme (CISP) and Foundation course for Competency Based Undergraduate Medical Education (CBUME), hosted one month orientation program in August 2019 which presented the students with various learning experiences aimed at developing knowledge, skills and attitude required for an Indian Medical Graduate (IMG).

**Aim:** To study the perception of students and teachers regarding one month Foundation Course.

**Material and Methods** Feedback on various modules and the broad objectives as given in the CBUME guidelines were considered and analyzed by percentage analysis of perception.

**Results:** The well structured foundation course alleviated students' worries and helped them cope with forthcoming professional demands.

**Conclusion:** We support the MCI's decision on mandatory foundation course for first-year MBBS students.

**Keywords:** Foundation course, Professionalism, Ethics, Medical Education, Indian Medical Graduate

### Introduction

The concept of Foundation Course is not entirely new in the Medical Education Curriculum. In 2012, MCI recommended Orientation Programme for 1 month, which was later modified to 15 days, then 1 week, so on and so forth. Now, with the introduction of Competency Based Undergraduate Medical Education in 2019, the Orientation Programme is renamed more appropriately as Foundation Course. The terminology being more apt as it gives a foundation or platform to the students at the very beginning of their Medical Profession, as this field is entirely new and different from their previous one.

With increasing demand for medical facilities in India and emerging novel diseases, there is an urge for increased medical professionals, who ought to be competent enough not only in handling routine as well as unusual cases but also undue situations in an absolutely professional manner. This brings in a need for our medical graduates to learn the principles of Attitude, Ethics, Communication, Leadership and Professionalism.

The selection and admission of students, as recommended by Medical Council of India to Medical colleges is based on merit of the candidate at qualifying examination and or a

competitive entrance examination (Medical Council of India, Rules and Regulations 1997).<sup>1</sup> The selection criteria do not take care of non-scholastic abilities of the students. Furthermore students from diverse cultural backgrounds at their adolescent age may find difficulties adapting to the new environment as they have diverging emotions, distractions, fear of ragging, peer pressure, homesickness, parental pressure, language problem and adjustment in the hostel rooms with roommates and food habits.

Medicine is a profession that requires mastery of a large body of knowledge, acquisition of clinical skills and also high standards of behavior and appropriate attitudes. It is also important to train the undergraduate students in techniques of learning which will motivate them to grow as self directed learners.<sup>2</sup>

Thus, this transition demands for orientation to time, place and person which cannot happen within a day or two and so is now thought upon and laid down by MCI as Orientation Programme. The Foundation course also aims to orient students to national health scenarios, medical ethics, health economics, learning skills and communication, basic life support, computer learning, sociology and demographics, biohazard safety, environmental issues and community orientation. This also provides an overview to the preclinical subjects.<sup>3</sup>

In this regard our objectives were, to study the perception of students and teachers regarding one month Foundation Course which was introduced as a part of CBUME in 2019.

#### **Material and Methods:**

A cross sectional study was done involving 20 medical teachers engaged in the one month Foundation course program conducted by Medical Education Unit and 130 first year undergraduate students during August 2019 at Gadag Institute of Medical Sciences, Gadag. After obtaining ethical clearance from the Institutional Ethical Clearance Committee, all the participants were explained regarding the purpose of the study and informed consent was taken.

**Table 1** shows the modules and the broad objectives as given in the CBME guidelines of the Foundation course.

Written feedback and reflection in the log book was taken from the students on the one month foundation course. Students' perception in the form of feedback was also obtained by a pre-designed and pre-validated questionnaire on a three-point Likert scale. Similarly feedback was taken from all the Medical teachers who were actively involved in the programme. Statistical analysis was performed by percentage analysis of perception using Statistical Package for the Social Sciences version 21.

#### **Results:**

The MBBS curriculum was revised in 2019 by introducing CBUME from August with the Foundation Course in the beginning. Out of 150 students, only 130 students had joined GIMS, Gadag in August after their first round of counseling. Following tables depict the feedback given by the students and teachers (expressed in %) on various modules and objectives proposed in the guidelines.

Students gave feedback on Orientation towards new curriculum which involved many concepts like history of medicine, Hippocratic Oath, integrated medicine, nutrition, human ethics, Indian constitution, empathy and sympathy and cadaveric ethics (**Table 2**). 89% of students found the topics to be interesting, 8% found it not interesting and 3% had neutral feelings. Similarly 84% of students found that the program was well organized, 92% were satisfied that they opted for this course, 94% enjoyed the overall program and 87% found that the overall curriculum is impressive.

The second module that is Professional Development (**Table 3**) dealt with attitude and professionalism, health education principles, principles of CBUME, principles of counseling, community services, importance of research, stress management, time management, emotional wellbeing, substance abuse / cyber addiction, prophylactic vaccination, organ donation and blood donation. 93%, 92% and 96% students found that the subjects covered under professional development were very useful, informative and effective and most important to get oriented with MBBS curriculum respectively. 89% students found the program to be well organized. Very few disagreed to this module.

Field visits (**Table 4**) to Community Medicine Museum, NRC, Psychiatry Department, PHC, Sub-centre, RNTCP – DMC – DOTS center, MRD, District Hospital, Dissection Hall, Blood Bank were found interesting by 86% students, 82% and 84% found that the visits were well organized and impressive respectively and 92% students enjoyed the visits.

Skills module (**Table 5**) included First Aid Demonstration and Hands on Experience, demonstration of basic life support, tests carried out in central laboratory, Disaster Management and Waste Management and treatment. Most of the students 96% found it very interesting to learn, 93% said it was well organized, clear demonstration was given as per 94% of students, 96% found it to be informative and helpful in future and 89% students thought that it boosted their confidence.

Local language was taught to ease the students who got admitted through All India quota. (**Table 6**) Few computer skills, communication skills were also taught and their learning skills were assessed. 76% students found it interesting, 83% agreed that it was well organized, 79% found that the presentations were clear and informative, 77% were impressed and 82% found it to be useful.

Regarding sports and extracurricular activities (**Table 7**), we conducted few sessions on Healthy Lifestyle – Exercise, Yoga and Meditation, few sports both indoor and outdoor games were organized. The students exhibited their own talents like singing, dancing, mimicry, standup comedy, translation of foreign languages especially Korean words. Almost all students enjoyed this module. 97% found it interesting, 94% saw it was well organized, 98% were satisfied and enjoyed and 95% found this module to be impressive to get rid of homesickness.

Overall impression of the students (**Table 8**) was that they had memorable experience, their doubts got clarified and they were relieved from anxiety. They found the staff to be helpful and supportive. All the students were upset that their Fresher's Day got cancelled because of Corona Pandemic. Many found difficulty understanding Kannada, and they wished for more language classes. 82% students found that it was long and exhaustive program and suggested the entire duration of the programme to be reduced. 17% felt that they had fewer chances for independent performance. 91% said that the programme was conducted in a cozy ambience.

**Table 9** depicts the feedback given by the teachers who were involved in the programme. 76% teachers found the course to be interesting, 73% felt that it was a memorable experience, 82% felt it was well organized by the medical education department, 92% teachers felt that students showed good participation, 80% students raised doubts and got it clarified, 78% felt they had good co-ordination amongst themselves, 19% felt that they lacked co-ordination, 94% felt that the overall programme was long and exhaustive and needs a cut down, suggesting to cover some topics in regular teaching.

**Discussion:**

In India, the selection of students as recommended by medical council of India to medical colleges is based on merit of the candidate at qualifying examination and/or a competitive entrance examination (Medical Council of India, Rules and Regulations 1997). The admission process varies from state to state but mostly based on merit list in their school final and in their entrance exam. The students may be from different boards of education with different syllabus. They may also belong to different regions, socioeconomic strata and have different languages.<sup>4</sup>

Colleges and universities worldwide develop and implement students' orientation programs to acclimatize them to campus environment, familiarize them with teaching programs, helping them to adapt to the academic challenges as they move from high school into undergraduate programs.<sup>5</sup>

Our orientation programme was found to be more informative and helped the students acquire the necessary skills for their pre-para clinical and clinical phases. The students participated enthusiastically in various sessions and their feedback was very encouraging. The feedback undoubtedly indicated that students were very happy and satisfied with the program. They found the orientation a good program which helped them to get oriented with campus and learning environment, helped them to develop confidence to face the challenging medical course. They liked the sessions dealing with acquiring skills like learning skills, time management, coping with stress, first aid and cardiopulmonary resuscitation. They got familiar with their co-learners as well as teaching faculty. Though the course was lengthy, it was found useful. The evaluation of the program was rated as successful by a majority of students. Similar results were also obtained by previous studies.<sup>6,7,8, 9, 10</sup>

We also obtained feedback by the teachers who were involved in the programme. Most of the teachers found the course to be interesting, memorable experience, active participation of students. They also felt that the overall programme was long and exhaustive and needed a cut down in the total duration, suggesting covering few topics in regular teaching.

**Table 1: Modules during the Foundation Course**

Module	No. of Hours	Topics
Orientation	30	Orientation Program
		Students' Perspectives of Medical Education
		Doctors' Perspectives of Medical Education (Panel Discussion)
		History of Medicine – Indian Contribution
		Hippocratic Oath
		Integrated Medicine
		Nurture by Nature
		Nutrition
		Bio-Ethics
		Human Ethics
		Cinem Education
		Indian Constitution (Legal Aid Services)
		What does it mean to be a patient?
		Patient Behavioral Cycle
Patient as human being (Sympathy Vs Empathy)		

		Cadaver as first teacher
Professional Development	40	Professionalism
		Attitude (Empathetic Approach)
		Principles of Health Education
		Principles of Competency Based Undergraduate Medical Education
		Bridging the Gap
		Principles of Counseling
		Community Services
		Sharing Experiences
		Importance of Research
		Stress Management
		Time Management
		Emotional Wellbeing
		Substance Abuse / Cyber Addiction
		Prophylactic Vaccination
		Students Vaccination
		Reflection
Organ Donation		
Blood Donation		
Field Visits	08	Community Medicine Museum Visit
		Nutrition Rehabilitation Centre (NRC) Visit
		Visit to Psychiatry Department
		Visit to Primary Health Centre (PHC), Subcentre
		Visit to Revised National Tuberculosis Control Programme - Designated Microscopy Centre - Directly Observed Treatment Short course (RNTCP – DMC – DOTS) center
		Visit to Non Communicable Diseases (NCD) Unit
		Visit to Medical Records Department (MRD) + District Hospital
		Visit to Dissection Hall
		Visit to Blood Bank
Skills Module	35	First Aid Demonstration
		First Aid Hands on Experience
		Basic Life Support (BLS)
		Central Laboratory
		Disaster Management
		Waste Management
Language, Learning and Computer Skills	40	Computer skill
		Communication Skills
		Language Skills
		Learning Skills
		E-Learning
Sports/Extracurricular Activities	22	Healthy Lifestyle – Exercise / Yoga, Meditation
		Sports
		Hobbies

**Table 2: Students' Feedback on Orientation (expressed in %)**

Feedback	Agree (3)	Neutral (2)	Disagree (1)
Interesting	89	3	8
Well Organized	84	2	14
Satisfied	92	2	6
Enjoyed	94	0	6
Impressive	87	4	9

**Table 3: Students' Feedback on Professional Development (expressed in %)**

Feedback	Agree (3)	Neutral (2)	Disagree (1)
Useful	93	2	5
Well Organized	89	3	8
Informative	92	0	8
Effective	92	0	8
Helpful to get oriented with MBBS	96	0	4

**Table 4: Students' Feedback on Field Visits (expressed in %)**

Feedback	Agree (3)	Neutral (2)	Disagree (1)
Interesting	86	2	12
Well Organized	82	7	11
Informative	84	1	15
Enjoyed	92	1	7

**Table 5: Students' Feedback on Skills Module (expressed in %)**

Feedback	Agree (3)	Neutral (2)	Disagree (1)
Interesting	96	1	3
Well Organized	93	0	7
Clear Demonstration given	94	2	4
Informative	96	0	4
Helpful in future	97	0	3
Helpful in building confidence	89	0	11

**Table 6: Students' Feedback on Language, Learning and Computer Skills (expressed in %)**

Feedback	Agree (3)	Neutral (2)	Disagree (1)
Interesting	76	5	19
Well Organized	83	2	15
Clear Presentation	79	7	14
Informative	76	5	19
Impressive	77	4	19
Useful	82	5	13

**Table 7: Students' Feedback on Sports and Extracurricular Activities (expressed in %)**

Feedback	Agree (3)	Neutral (2)	Disagree (1)
Interesting	97	1	2
Well Organized	94	0	4
Satisfied	98	0	2
Enjoyed	98	0	2
Impressive	95	2	3

**Table 8: Students' Comments on the Overall Programme (expressed in %)**

No.	Comments	% of Students
1.	Memorable experience	94
2.	Doubts clarified	81
3.	Relieved from anxiety	91
4.	Helpful and supportive staff	97
5.	Upset that Fresher's Day got cancelled	100
6.	Difficulty understanding Kannada, wish for more language classes	16
7.	Long and exhaustive program	82
8.	Duration of the Programme to be reduced	21
9.	Less chances for independent performance	17
10.	Cozy ambience	91

**Table 9: Feedback from Medical Teachers involved in the Programme (expressed in %)**

Feedback	Agree (3)	Neutral (2)	Disagree (1)
Interesting	76	2	22
Memorable experience	73	3	24
Well organized	82	4	14
Good participation of students	92	0	8
Students clarified doubts	80	2	18
Co-ordination amongst faculty	78	3	19
Long and exhaustive program	94	0	6
Duration to be reduced and some topics to be covered in regular teaching	97	0	3

**Conclusion:**

Orientation and foundation program for MBBS students at the entry level, as suggested by the MCI, helps reduce students' anxiety and boosts their confidence. We structured the foundation course in such a way that it alleviated students' worries and helped them cope with forthcoming professional demands. It facilitated their smooth transition from high school to an undergraduate medical course. We support the MCI's decision on mandatory foundation course for first-year MBBS students.

**Limitations and Directions for Future Improvisation and Research:**

As all the 150 students of the batch 2019-2020 did not attend the program, we could not study the perception of absentees. Similar studies about orientation program can be extended for second year, third year-part one and third year-part two MBBS students, interns, and postgraduate medical students. We also found insufficient faculty strength while performing skills training as it was supposed to be done in small groups. An increase in the faculty strength is a dire need for the proper implementation of CBUME.

**Acknowledgments**

We gratefully acknowledge the enthusiastic participation of undergraduate medical students of 2019- 2020 batch of GIMS, Gadag. We are also thankful to the Director for providing with all the facilities for conducting foundation course smoothly and to the entire teaching faculty for their untiring involvement in the programme.

**References:**

1. Medical Council of India (1997) Foundation Course, Salient Features of Regulations On Graduate Medical Education, The Gazette Of India - 17th May 1997.
2. Singh Suman, Ghosh Sarmishtha, Pandya Himanshu. Foundation Course for MBBS students at entry level: Experience at an Indian medical school. South East Asian Journal of Medical Education 2015;1:33-38.
3. Medical Council of India (homepage on the internet). Vision 2015. Available from [http://www.mciindia.org/tools/announcement/MCI\\_booklet.pdf](http://www.mciindia.org/tools/announcement/MCI_booklet.pdf).
4. Srimathi T. A study on students feedback on the foundation course in first year MBBS Curriculum. Int J Med Res Health Sci. 2014;3(3):575-579.
5. Taylor BE, Massy WF. Strategic Indicators for Higher Education: Vital Benchmarks and Information to Help You Evaluate and Improve Your Institution's Performance. Princeton, NJ: Peterson's; 1996.
6. Mittal R, Mahajan R, Mittal N. Foundation programme: A student's perspective. Int J Appl Basic Med Res. 2013;3:52-54.
7. Srimathi T. A study on students' feedback on the foundation course in first year M.B.B.S curriculum. Int J Med Res Health Sci. 2014;3(3):575-579.
8. David MA. Foundational orientation program for medical students. Educ Med J. 2013;5(2):140.
9. Shankar PR. Designing and conducting a two day orientation program for first semester undergraduate medical students. J Educ Eval Health Prof. 2014;11:31.
10. Singh S, Ghosh S, Pandya H. Foundation Course for MBBS students at entry level: Experience at an Indian medical school. South East Asian Journal of Medical Education Inaugural issue. 2015;1:33-37.