

## Research article

**Evaluation of the foundation block of first year MBBS curriculum in a medical college**Venkappa S. Mantur<sup>1</sup>, Sudarshan Reddy C.<sup>2</sup>, Arun Kumar<sup>3,4</sup>, Arun Kowale<sup>1</sup><sup>1</sup>Departments of Physiology, <sup>2</sup>Department of Pharmacology, <sup>3</sup>Department of Biochemistry, SSPM Medical College and Lifetime Hospital, Kasal, Sindhudurga, 422 004, Maharashtra, India<sup>4</sup>SSIMS & RC, Davangere, 577005, Karnataka, India*(Received: June 2023      Revised: September 2023      Accepted: October 2023)*Corresponding author: **Venkappa S. Mantur**. Email: venki.mantur@gmail.com**ABSTRACT**

**Introduction and Aim:** The National Medical Council of India (NMC) has updated the undergraduate medical curriculum by establishing "competency based medical education," which focuses on a one-month foundation course. This time is thought to be crucial for students to adjust to their new college surroundings. The purpose of this study was to assess the initial one-month foundation course from the perspectives of students.

**Materials and Methods:** A total of 150 first year MBBS students joining the college in the academic year 2020-21 were included in the study. Therefore, all students' means universal samples were included in the study. The core curriculum was meticulously organised and carried out in accordance with the National Medical Council of India's recommendations. Students provided feedback using a five-point Likert scale. Before the final study, we conducted a pilot study for assessment of the reliability of the scale by taking convenient samples and reliability coefficient was found to be 0.8769. Overall recommendations were solicited, and the outcomes were analysed using feedback from students. It calculated the percentage of students who responded. The data were analysed by using statistical software i.e., SPSS version 20.00 with simple frequency and percentages.

**Results:** The percentages of students who agreed and strongly agreed on something ranged from 77.14 to 90.92 percent. All the sessions are positive feedback given by students who strongly agree and biosafety, E-learning, language, and biomedical waste management needed improvement in the module. Good collaboration, teamwork, and thorough planning at the interdepartmental and intradepartmental levels, according to the faculty, were vital elements for the course's successful implementation.

**Conclusion:** The foundation course sessions were generally well welcomed by the students. The findings will aid us in improving our foundation programme for the following year to accomplish the goals of the foundation course.

**Keywords:** Foundation course; first MBBS curriculum; medical teaching.

**INTRODUCTION**

**M**edical education is evolving to meet the needs of our rapidly changing health-care system with introduction to competency based medical education for Indian Medical Students (IMS) (1, 2). It represents a dramatic change to student-centred learning, emphasising practicalities, developing skills, ethical guidelines, and improved doctor-patient relationships. The reviewed curriculum mandates a one-month foundation course at the start of the MBBS programme, with the goal of familiarising incoming medical students with the necessary information, communication, technical, language skills and abilities to help them adjust to their novel professional environment (3). Students may experience difficulties adjusting to food and hostel life, as well as language education, during this time of their transition from high school to a professional course. Stress is a normal human reaction when a person is faced with a situation in which he is unsure of what to do next. Similarly, when students enter a professional medical college, other factors inherent in professional colleges, such as ragging, additional financial burden, and so on, add to their stress level

(4-6). The goal is to educate them and their familiar about the new environment.

As a result, a student orientation programme at the entrance level of an MBBS programme is required to acclimate students to the college campus, familiarise them with instructional programmes, and assist them in adapting to academic hurdles as they transition from high school to undergraduate programmes. Students coming from a variety of learning environments would benefit from such a structured foundation course to assist them cope with the huge body of knowledge and skills required in the dynamic and rapidly changing health-care system (7-11). The purpose of the foundation course is to give a fundamental set of information and abilities that will serve as a foundation for additional learning both during the MBBS programme and afterwards in their medical careers. The intention of this study was to evaluate the feedback of students enrolled in the foundation course to make the necessary adjustments and alterations if necessary.

## MATERIALS AND METHODS

SSPM Medical College and Life Time Hospital, in Padve, Kasal, Sindhudurg, Maharashtra, India, did the research. It is a MUHS-affiliated private medical college. It was a descriptive questionnaire-based cross-sectional study. In February of last year, a total of 140 first year MBBS students were admitted. Faculty members of the institute, as well as faculty members from various universities departments came up with a 30 days' foundation course. This is a course for first-year medical students.

The foundation course was divided into numerous modules according to NMC standards: Orientation, skill, community orientation and field visits, professional development & ethics, enhancement skills - communication and language skills, sports & extracurricular activities module.

This was the first MBBS batch to arrive in our campus. We began by bringing students with orientation. Various themes of orientation to the Medical Profession were included in this. The students were informed about the objectives, responsibilities, and competencies of an Indian medical graduate, the NMC curriculum plan, the anti-ragging committee, college rules and regulations, and the student support system. Students were sensitised to MBBS curriculum, career pathways during and after MBBS.

In skill modules like basic life support, first aid, fire safety, hands washing techniques, biosafety, communication skill workshop, biomedical waste management workshop these sessions were facilitated by skill-based experience clinicians.

Professional development and ethics module on group learning, medical writing, new learning and teaching methodologies, E-learning, concept of professionalism and ethics, computer skills, self-directed learning, functioning of a healthcare team, objective structured clinical examination, patient consent and confidentiality, computer skills, evidence based medicine, biomedical waste management, expectation of societies and patients from Doctors, how to perform

better in exams, ICMR short term studentship, introduction to research concept, mental health and stress management.

Sessions were led by in house subject professionals and experts from famous and well-known institutes were also brought in for several sessions. All the seminars were interactive in some way. Some of them took the shape of lectures, while others took the form of workshops. To make the training more entertaining, role play, and audio-visual aids were used. Students were given homework and role plays in several of the sessions.

### Students' feedback

On the closing day of the foundation course, all students were asked to complete a feedback form. It was a 5-point Likert scale questionnaire that had been pre-designed and pre-defined (12). We linked the elements in the questionnaire with the research topics because it was a programme evaluation to ensure internal consistency. All the researchers reviewed it to ensure that the instrument measures what it intends to measure (13).

### Statistical analysis

The statistical software i.e., SPSS 20.00 version was used to analyse the data with frequency and percentage.

## RESULTS

The feedback was responded to by all 140 students. 90 and 50 of the 140 students were boys and girls, respectively. All modules of the foundation course received favourable feedback from students. The mean and percentage ratings of the students' perceptions of communication skills, basic life support, first aid, hand washing techniques and biosafety on are shown in Table 1. The sessions on communication skills (83.57%), basic life support (86.43%), hand washing techniques and biosafety (77.14%) and first aid (83.57%) positive feedback given by students strongly agree and agree for the skill module.

**Table 1:** Students' feedback on the skill module as a percentage

Domain	SA	%	A	%	NADA	%	DA	%	SDA	%	Mean	SD
Communication skills	47	33.57	70	50.00	19	13.57	3	2.14	1	0.71	4.14	0.78
Basic Life support (Demo & perform)	54	38.57	67	47.86	18	12.86	1	0.71	0	0.00	4.24	0.70
Hand washing techniques, Biosafety	42	30.00	66	47.14	23	16.43	2	1.43	6	4.29	3.95	1.01
First Aid	65	46.43	52	37.14	16	11.43	4	2.86	2	1.43	4.22	0.95

SA: Strongly agree; A: Agree; NADA: Neither agree nor disagree; D: Disagree; SD: Strongly disagree

**Table 2:** Students' feedback on professionalism and ethics module as a percentage

Questions	SA	%	A	%	NADA	%	DA	%	SDA	%	Mean	SD
The session on self-directed learning	51	36.43	76	54.29	9	6.43	2	1.43	2	1.43	4.23	0.75
Group learning	63	45.00	62	44.29	12	8.57	2	1.43	1	0.71	4.31	0.75
How to perform better in exam	41	29.29	75	53.57	23	16.43	0	0.00	1	0.71	4.11	0.72
Maintenance of log book and portfolios	58	41.43	62	44.29	14	10.00	3	2.14	2	1.43	4.20	0.90
ICMR STS project	58	41.43	61	43.57	20	14.29	1	0.71	0	0.00	4.26	0.72
Medical writing	57	40.71	60	42.86	18	12.86	4	2.86	1	0.71	4.20	0.82
E-learning	43	30.71	66	47.14	23	16.43	3	2.14	5	3.57	3.99	0.94
Mental health and stress management	65	46.43	57	40.71	15	10.71	0	0.00	3	2.14	4.29	0.83
New learning and teaching methodologies	55	39.29	64	45.71	18	12.86	1	0.71	2	1.43	4.21	0.80
Personality development	58	41.43	60	42.86	15	10.71	2	1.43	5	3.57	4.17	0.94

SA: Strongly agree; A: Agree; NADA: Neither agree nor disagree; D: Disagree; SD: Strongly disagree

**Table 3:** Students' feedback on healthcare system as a percentage

Questions	SA	%	A	%	NADA	%	DA	%	SDA	%	Mean	SD
Functioning of a health care system	61	43.57	62	44.29	14	10.00	1	0.71	2	1.43	4.28	0.79
Unethical behaviour	53	37.86	58	41.43	22	15.71	4	2.86	3	2.14	4.10	0.92
Expectation of societies & patients from Doctors	52	37.14	73	52.14	8	5.71	4	2.86	2	1.43	4.19	0.87
Carrier pathways during and after MBBS	59	42.14	55	39.29	18	12.86	2	1.43	6	4.29	4.14	0.99
Evidence base medicine	40	28.57	65	46.43	24	17.14	6	4.29	5	3.57	3.92	0.97
Expectation of societies & patients from Doctors	55	39.29	62	44.29	8	5.71	4	2.86	10	7.14	4.06	1.10

SA: Strongly agree; A: Agree; NADA: Neither agree nor disagree; D: Disagree; SD: Strongly disagree

**Table 4:** Feedback of students on different criteria of foundation course

Questions	Yes (%)
Objectives of the module	97.86
Presentation of the sessions	96.43
Time provided for session	95.00
Feel inspired to put what they've learned in class into practice	97.86
Is it necessary to attend the session for the MBBS course	95.71
Should the session be expanded upon during the MBBS programme	94.29
Did you have any prior understanding of the subject	33.57
Did your understanding improve as a result of the session	98.57

Table 2 shows the student's level of sensitization to professionalism and ethics module session on self-directed learning (90.92%), group learning (89.29%), how to perform better in exam (82.86%), maintenance of log book and portfolios (85.72%), ICMR STS project (85%), medical writing (83.57%), E-

learning(77.85%) mental health and stress management(87.14%), new learning and teaching methodologies(85%), personality development (84.29%) students gave favourable comments in the form of strongly agree and agree in professionalism and ethics modules.

Table 3 represents the student's level of sensitization to the health-care system during the module session on functioning of a health care system (87.86%), unethical behaviour (79.29%), expectation of societies and patients from doctors (89.28%), carrier pathways during and after MBBS (81.43%) and evidence base medicine (83.58%) students provided positive feedback in the form of highly agree and agree in health care system modules. Similar positive feedbacks were given by the students in criteria of foundation course (Table 4).

## DISCUSSION

The percentage of students by giving good feedback on various topics taught in the foundation course was examined in our study. Generally, the students were enthusiastic about all the sessions.

Students liked communication skills, basic life support, first aid, self-directed learning, group learning, how to perform better in exam, maintenance of log book and portfolios, ICMR STS project, medical writing, mental health and stress management, teaching methodologies and hand washing techniques and biosafety, E-learning, language and biomedical waste management needed improvement.

Our study agreement with the observation of foundation course carried out for second year MBBS for two days, the number of students rated the whole programme as very good and valuable, according to the assessment (14). Students had a favourable perception about the three-day orientation programme held at a medical college in Kerala, according to evaluations (15). All the session of the foundation course were well received by the students. Their session arrangements addressed the fact that these sessions facilitated small group discussion, field visit, hands on training creativity and motivating student's ideas. Students took responsibility for learning and gained higher-order thinking skills because of active learning (16-18). A foundation course is beneficial in laying a solid foundation for transforming a young and inexperienced medical undergraduate student into a competent IMG (19). According to the findings of a study conducted in Gujarat, 78% of students responded positively to orientation and 88% of students responded positively to the foundation course, and students were generally satisfied with the programme (20).

The foundation course's strength was the one-month course's successful execution and evaluation for all 150 students. The questionnaire was completed by all the students. The success of this programme hinged on the faculty's ability to work together as a team, plan, and collaborate. Since the feedback was given on the last day of the programme, it's unlikely that students were able to recollect all the sessions and provide input. The course can be conducted in other colleges

according to NMC guidelines with situational changes as needed, having in mind that this period is used successfully by the students to acclimate to the new professional environment.

The results of this study provided insight into the benefits and challenges of implementing and evaluating a foundation course. It will contribute to the creation of the next foundation course for medical students. As a result, we will be able to organise the upcoming foundation course more effectively.

## CONCLUSION

The foundation course was generally favourably accepted by students. The evaluation process provided an opportunity to investigate the strengths and weaknesses of different sessions. In addition, at the start of the course, the students were made aware of Indian medical students' skills and ambitions.

## ACKNOWLEDGEMENT

The authors are grateful to SSPM Medical College and Lifetime Hospital, India for providing necessary support and encouragement.

## CONFLICT OF INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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