

Perception of Phase 1 MBBS Students Regarding the Foundation Course: A Cross-sectional Study

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ABSTRACT

Introduction: A one-month Foundation Course (FC) was introduced by Medical Council of India (MCI) in its Competency Based Medical Education (CBME), from the academic session 2019 onwards. The course was introduced with the purpose to orient fresh MBBS students about the challenging academic environment of medical colleges, apart from giving them the opportunity to early assimilation, peer-communication, group-interaction and introducing them to some basic skills.

Aim: To obtain the perception of the students about their experience on the foundation course, and to collect feedback for further improvements in the next sessions.

Materials and Methods: A questionnaire-based observational cross-sectional study was conducted at the end of FC from April 2021 to July 2021. The participants were 92 newly joined phase 1 MBBS students at Rajmata Shrimati Devendra Kumari Singhdeo Government Medical College, Ambikapur, Chhattisgarh, India. The experience and the perception of students about the FC was taken as feedback, obtained on a prestructured and validated questionnaire consisting of 33 closed-ended questions and distributed over five modules. The feedback to these questions

was to be answered as a single response based on the five-point Likert scale with decreasing order of agreement. Data analysis was done by using the Statistical Package for the Social Sciences (SPSS) version 16.0 software.

Results: The mean age of study participants was 19.05±1.21 years. Thirty four (36.9)% of the study participants graded the overall experience to FC as highly satisfactory. Among them 14 were males and 20 were females. The feedback on the orientation module and field visit module scored the average mean (4.2) on a 5-point Likert scale. While the feedback on the module on computer, language, learning and extra-curricular activities obtained the lowest average mean score (3.6).

Conclusion: The FC is a welcome change in the curriculum according to the newly introduced CBME. The topics such as 'cadaver as first teacher', 'visit to dissection hall', 'visit to blood bank', 'role of doctors in society' and 'Basic Life Support (BLS)' scored the higher mean value, while 'substance abuse and cyber-addiction' and 'sports and hobbies' scored the lower mean values on a five-point Likert scale. The FC helped to assimilate and acclimatise the newly joined phase 1 MBBS students with the main stream of medical course.

Keywords: Curriculum, Indian medical graduate, Likert scale, Skill

INTRODUCTION

The Medical Council of India (MCI) in its Competency Based Medical Education (CBME) had introduced an initial one month Foundation Course (FC) from August 2019 as a compulsory program since the first day of Phase 1 MBBS students at Medical Colleges. The basic motive behind such change was to sensitise the fresh MBBS students coming from diverse backgrounds, culture, languages, economic and social status. There is a sudden shift from the pedagogic to andragogic pattern of learning and education. To assist in such change and to make it easier and helpful for the students as well as the faculty members, a need for foundation cum orientation course has been awaited by medical educationists. Before the implementation of FC in CBME, many medical colleges were running and organising some orientation cum introduction programs of variable duration but usually of 2-3 days at the beginning of medical curriculum [1].

Competency based medical education proposes an Indian Medical Graduate (IMG) to be competent enough in acquiring clinical skills as well as having good attitudes, ethics and professionalism, learned through Attitude, Ethics and Communication Module (AETCOM) module. The FC which is the forerunner of CBME acts as first foundation to build the professional career of fresh medical students. It contributes in allaying their anxiety and apprehension and helps them in mixing and acclimatising into the new and challenging academic environment of medical colleges [2].

The major topics to be covered during the FC as suggested by CBME are divided into modules such as orientation module, skill

module, professional development module, field visit module and the module on learning, language, communication and the extra-curricular activities. Based on such pattern, various medical colleges across the country conduct FC of one month duration at the start of Phase 1 MBBS course [3]. In view of the above facts this study was planned to assess the perception of phase 1 MBBS students about the FC and to plan and propose further refinement (if any) of this course from the next batch.

MATERIALS AND METHODS

The present questionnaire-based cross-sectional observational study was conducted at the Department of Physiology and Department of Pharmacology, Rajmata Shrimati Devendra Kumari Singhdeo GMC Ambikapur, Chhattisgarh, India, from April 2021 to July 2021. The study was commenced after the approval from Institutional Ethics Committee (IEC/25/2021/GMC Ambikapur/06.04.2021).

Inclusion criteria: The newly joined phase 1 MBBS students (batch 2020-2021) who underwent the FC were the participants in this study. Participation of the students in this study was voluntary and was taken after obtaining informed consent. Confidentiality of the participants was maintained.

Exclusion criteria: The participants who were unable to provide the informed consent were excluded from the study.

Procedure

In this batch, there were a total of 100 students, with 53 females and 47 males. The experience and perception of the students in the

FC were taken using a feedback at the end of the course, obtained on a prestructured and validated questionnaire, which consisted of 33 questions distributed over five modules. All the questions were based On 5-point grade on Likert scale in decreasing order of agreement (5=highly satisfactory, 4=satisfactory, 3=neutral, 2=unsatisfactory, 1=highly unsatisfactory). The different modules of the FC were the orientation module, the skill module, module on professional development, module on field visits and the module on computer, language, learning and extra-curricular activities. The internal consistency of the questionnaire was assessed and the Cronbach's alpha was 0.84.

An initial briefing of 15 minutes was done regarding the motive behind this study and how to fill the questionnaire. Clear-cut instructions were given on the top of questionnaire that included:

- not to write their name or roll number;
- write their gender either M or F;
- attempt all the closed-ended questions to be rated on a five point Likert scale;
- not to attempt the question if that topic had not been attended during the FC by the student.

After distributing the questionnaire, a total of 60 minutes was allotted to fill it. Four males and four females were absent on that day, so 92 (43 males and 49 females) feedback forms were included for data analysis.

STATISTICAL ANALYSIS

The data was collected and analysed in the form of frequencies and percentage analysis. The Statistical Package for the Social Sciences (SPSS) version 16.0 software was used for data analysis.

RESULTS

The mean age of study participants was 19.05 ± 1.21 years. Thirty four (36.9)% of the study participants graded the overall experience to FC as highly satisfactory. The gender wise grading of overall experience was rated highly satisfactory by 32.6% male and 40.8% female [Table/Fig-1].

Gender	Response*				
	5	4	3	2	1
	N (%)	N (%)	N (%)	N (%)	N (%)
Male (n1=43)	14 (32.6)	15 (34.9)	8 (18.6)	4 (9.3)	2 (4.7)
Female (n2=49)	20 (40.8)	15 (30.6)	10 (20.4)	3 (6.1)	1 (2.0)
Total students (N=92)	34 (36.9)	30 (32.6)	18 (19.6)	7 (7.6)	3 (3.3)

[Table/Fig-1]: Gender-wise grading of overall experience to the Foundation Course (FC).

*5=Highly satisfactory; 4=Satisfactory; 3=Neutral; 2=Unsatisfactory; 1=Highly unsatisfactory

As shown in [Table/Fig-2] in the feedback on orientation module, the topic 'Cadaver as first teacher' was liked by majority of the students followed by 'role of doctors in society' and 'introduction to institute and facilities'. Among these topics highly satisfactory responses were given by 81.3%, 54.3% and 48.9% students, respectively.

In the feedback on skill module [Table/Fig-3], Basic Life Support (BLS) and 'waste management' were the two topics liked by majority of the students with highly satisfactory scores of 52.7% and 40.4%, respectively. Among the highly unsatisfactory responses in this module, the topics 'disaster management' and 'universal precaution' scored maximum with 7.5% and 5.6%, respectively.

As shown in [Table/Fig-4] in the feedback on professional development module, the topics 'professionalism' and 'principles of CBME' were liked most by the study participants with highly satisfactory responses of 42% and 36.4%, respectively. Among the highly unsatisfactory responses in this module, the topics 'substance abuse and cyber addiction' and 'stress management and emotional well-being' scored maximum with 12.0% and 9.3%, respectively.

Feedback on orientation module								
S. No.	Topic	Response*					Total students responded	Mean score
		5	4	3	2	1		
		N (%)	N (%)	N (%)	N (%)	N (%)		
1.	Introduction to institute and facilities	45 (48.9)	38 (41.3)	5 (5.4)	1 (1.1)	3 (3.3)	92	4.3
2.	Role of doctors in society	50 (54.3)	36 (39.1)	4 (4.3)	1 (1.1)	1 (1.1)	92	4.4
3.	History of medicine, alternate systems	17 (18.7)	36 (39.6)	30 (32.9)	5 (5.5)	3 (3.3)	91	3.6
4.	Role of Indian Medical Graduate (IMG)	44 (48.4)	27 (29.7)	13 (14.3)	4 (4.4)	3 (3.3)	91	4.2
5.	Principles of bioethics	22 (25)	34 (38.6)	22 (25)	6 (6.8)	4 (4.5)	88	3.7
6.	Cadaver as first teacher	74 (81.3)	11 (12.1)	2 (2.2)	3 (3.3)	1 (1.1)	91	4.7

[Table/Fig-2]: Feedback on orientation module by the study subjects. (Students did not attempted the question if that topic had not been attended during the FC by the student).

*5=Highly satisfactory; 4=Satisfactory; 3=Neutral; 2=Unsatisfactory; 1=Highly unsatisfactory; Average mean=4.2

Feedback on skill module								
S. No.	Topic	Response*					Total students responded	Mean score
		5	4	3	2	1		
		N (%)	N (%)	N (%)	N (%)	N (%)		
1.	First aid	32 (35.1)	37 (40.7)	16 (17.6)	5 (5.5)	1 (1.1)	91	4.0
2.	Basic Life Support (BLS)	48 (52.7)	30 (32.9)	10 (10.9)	2 (2.2)	1 (1.1)	91	4.3
3.	Universal precaution	18 (20)	36 (40)	27 (30)	4 (4.4)	5 (5.6)	90	3.6
4.	Immunisation	20 (22.5)	40 (44.9)	20 (22.5)	6 (6.7)	3 (3.4)	89	3.8
5.	Waste management	36 (40.4)	34 (38.2)	9 (10.1)	7 (7.9)	3 (3.4)	89	4.0
6.	Disaster management	9 (11.3)	38 (47.5)	22 (27.5)	5 (6.3)	6 (7.5)	80	3.5

[Table/Fig-3]: Feedback on skill module by the study subjects.

*5=Highly satisfactory; 4=Satisfactory; 3=Neutral; 2=Unsatisfactory; 1=Highly unsatisfactory; Average mean=3.9

As shown in the [Table/Fig-5], in the feedback on field visit module by the study participants, 'visit to dissection hall' and 'visit to blood bank' were the two topics with maximum respondents responding highly satisfactory response as 74.4% and 62.1%, respectively.

In the feedback on module on computer, language, learning and extra-curricular activities [Table/Fig-6], 'E-learning' and 'learning skills' were the topics with maximum respondents responding highly satisfactory responses as 37.9% and 32.5%, respectively. In this module, the unsatisfactory and highly unsatisfactory responses were higher as compared to other modules. The topics on which greater number of respondents responded the unsatisfactory response were 'sports and hobbies', 'healthy lifestyle' and 'language skills' with 16.3%, 13.6% and 12.8% respondents, respectively. Maximum respondents responding highly unsatisfactory responses were for the topics 'healthy lifestyle' and 'sports and hobbies' with 13.6% and 10.5% respondents, respectively. The highest average mean score on the 5-point Likert scale was found in the orientation module and the field visit module, while the module on computer, language, learning and extra-curricular activities had scored lowest average mean. Among all the topics distributed over five modules,

Feedback on the module on professional development								
S. No.	Topic	Response*					Total students responded	Mean score
		5	4	3	2	1		
		N (%)	N (%)	N (%)	N (%)	N (%)		
1.	Professionalism	37 (42)	28 (31.8)	21 (23.9)	2 (2.3)	00	88	4.1
2.	Principles of CBME	31 (36.4)	35 (41.2)	15 (17.6)	3 (3.5)	1 (1.2)	85	4.1
3.	Importance of research	20 (24.1)	31 (37.3)	22 (26.5)	7 (8.4)	3 (3.6)	83	3.7
4.	Time management	27 (32.1)	23 (27.4)	21 (25)	9 (10.7)	4 (4.8)	84	3.7
5.	Stress management and emotional well-being	17 (19.8)	22 (25.6)	23 (26.7)	16 (18.6)	8 (9.3)	86	3.3
6.	Blood and organ donation	22 (28.2)	22 (28.2)	18 (23.1)	12 (15.4)	4 (5.1)	78	3.6
7.	Vaccination	27 (33.8)	20 (25)	23 (28.8)	9 (11.2)	1 (1.3)	80	3.8
8.	Substance abuse and cyber addiction	9 (12)	17 (22.7)	25 (33.3)	15 (20)	9 (12)	75	3.0

[Table/Fig-4]: Feedback on the module on professional development by the study subjects.

*5=Highly satisfactory; 4=Satisfactory; 3=Neutral; 2=Unsatisfactory; 1=Highly unsatisfactory; Average mean=3.7

Feedback on the module on field visits								
S. No.	Topic	Response*					Total students responded	Mean score
		5	4	3	2	1		
		N (%)	N (%)	N (%)	N (%)	N (%)		
1.	Visit to community medicine museum	41 (46.6)	27 (30.7)	16 (18.2)	2 (2.3)	2 (2.3)	88	4.2
2.	Visit to primary health centre	35 (43.2)	29 (35.8)	13 (16.0)	3 (3.7)	1 (1.2)	81	4.2
3.	Visit to RNTCP-DMC-DOTS centre	29 (37.7)	26 (33.8)	16 (20.8)	4 (5.2)	2 (2.6)	77	3.9
4.	Visit to medical-records department and district hospital	31 (39.7)	28 (35.9)	14 (17.9)	4 (5.1)	1 (1.3)	78	4.1
5.	Visit to dissection hall	64 (74.4)	13 (15.1)	7 (8.1)	1 (1.2)	1 (1.2)	86	4.6
6.	Visit to blood bank	54 (62.1)	22 (25.3)	7 (8.0)	3 (3.4)	1 (1.1)	87	4.4

[Table/Fig-5]: Feedback on the module on field visits by the study subjects.

*5=Highly satisfactory; 4=Satisfactory; 3=Neutral; 2=Unsatisfactory; 1=Highly unsatisfactory; Average mean=4.2

the higher mean scores were found in the topics such as 'cadaver as first teacher', 'visit to dissection hall', 'visit to blood bank', 'role of doctors in society' and 'BLS', while the lower mean scores were obtained in the topics 'stress management and emotional well-being', 'healthy life style', 'sports and hobbies' and 'substance abuse and cyber-addiction'.

DISCUSSION

The present study was conducted on Phase 1 MBBS students (batch 2020-21) to obtain their feedback on FC, which was carried out in accordance to MCI's CBME. Literature review on this topic revealed few published articles [4-6]. Before the implementation of CBME, this FC was not mandatory in the curriculum and most of the medical colleges conducted a welcome-cum-orientation program of one or two days to introduce the fresh medical students about

Feedback on the module on computer, language, learning and extra-curricular activities								
S. No.	Topic	Response*					Total students responded	Mean score
		5	4	3	2	1		
		N (%)	N (%)	N (%)	N (%)	N (%)		
1.	Computer skills	23 (27.1)	25 (29.4)	24 (28.2)	9 (10.6)	4 (4.7)	85	3.6
2.	Communication skills	22 (26.5)	29 (34.9)	20 (24.1)	10 (12.0)	2 (2.4)	83	3.7
3.	Language skills	20 (23.3)	23 (26.7)	29 (33.7)	11 (12.8)	3 (3.5)	86	3.5
4.	Learning skills	26 (32.5)	22 (27.5)	17 (21.2)	9 (11.2)	6 (7.5)	80	3.7
5.	E-learning	30 (37.9)	27 (34.1)	9 (11.4)	8 (10.1)	5 (6.3)	79	3.9
6.	Healthy life style	18 (22.2)	19 (23.4)	22 (27.1)	11 (13.6)	11 (13.6)	81	3.3
7.	Sports and hobbies	19 (22.1)	15 (17.4)	29 (33.7)	14 (16.3)	9 (10.5)	86	3.2

[Table/Fig-6]: Feedback on the module on computer, language, learning and extra-curricular activities by the study subjects.

*5=Highly satisfactory; 4=Satisfactory; 3=Neutral; 2=Unsatisfactory; 1=Highly unsatisfactory; Average mean=3.6

the college, curriculum etc. Since there were no clear-cut guidelines before CBME, many topics that are covered now in FC, such as skill module, professional development module and module on Attitude, Ethics and Communication (AETCOM) were totally untouched in the earlier orientation programs [7].

In this study, most of the students rated their overall experience to FC as 'highly satisfactory' (32.6% male and 40.8% female) and 'satisfactory' (34.9% male and 30.6% female). Eighteen (18.6)% male and 20.4% female rated it as neutral, i.e. they could not rate it either in favour or against. In a study by Khilnani AK et al., 22.3%, 41.9% and 33.8% students rated the overall experience to one-month FC as excellent, very good and good respectively, while rest gave the unfavourable ratings [8]. In a similar study by Vyas S et al., from Ahmedabad, Gujarat, 88.4% students rated the overall experience to FC as favourable [9]. In another study by Dixit R et al., highly satisfactory response was obtained from the students as the overall rating of 4.19 was found on a 5-point Likert scale [10]. The finding on the overall experience to the FC, in the present study, was similar with these studies.

The distinguishing feature of the present study is that the feedback of students on all the major modules of FC, such as orientation program, skill module, professional development module, field visit module and the module on learning, language, communication, and extra-curricular activities. One more feature to differentiate this study from others is the comparative analysis on the collected questionnaire-feedback for both male and female. In the present study, the average mean scores on 5-point Likert scale were highest (4.2) in the orientation module and the field visit module. The module on computer, language, learning and extra-curricular activities scored the lowest average mean (3.6). The overall experience to FC was graded as highly satisfactory and satisfactory by 36.9% and 32.6% of the total participants respectively. In a study by Patel J and Akhiani P 78% of the students rated positive response to the orientation program and 88% of the students were satisfied with FC [11]. In a similar study conducted at Kerala by Francis A et al., 40%, 50%, 7% and 3% students rated the overall orientation program to be excellent, very good, good and satisfactory, respectively [12]. In the study by Khilnani AK et al., they found equal percentage of participants to be in the favour of one month's FC and reduced duration of FC. They also reported that 23% of faculty members were in the favour of reducing the duration of FC to two weeks [8].

Though this was the first FC for the institute, the participants took part in all the modules of FC very enthusiastically, and the findings obtained as their perceptions in the present study will help to improve the implementation of FC from the next batches.

Limitation(s)

The participants were only phase 1 MBBS students. The perception and experience of faculty members on the FC was not included. Further studies may be conducted to involve both the faculty and students.

CONCLUSION(S)

In the medical colleges of India, the students come from different socio-cultural backgrounds and there is a sudden shift from school/college level learning to Institute level learning. To overcome such academic challenges apart from the new unfamiliar environment of medical colleges, FC seems to be a welcome change in the CBME, helping the students by early acclimatisation, peer-communication and assimilation. Majority of the students were satisfied and gave positive feedback on the different modules conducted during FC, in the present study.

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