

A Study on the Impact of Foundation Course on 1st Year MBBS Students (2019 Batch) at RD Gardi Medical College, Ujjain

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Abstract

Introduction: A 1 month foundation course has been envisaged by the Board of Governors to orient the first year medical student to the new professional environment and help him/her to acquire some basic skills.

Objectives: To assess student's feedback on various modules of foundation course. To improve the subsequent course.

Methodology: A feedback questionnaire was provided to first year medical students before and after the one month foundation course for self assessment of their knowledge skills and confidence before and after the course.

Result: 98.6% students participated in the study. There was significant improvement ($p < 0.05$) in student's perception of all the modules before and after the course.

Conclusion: Encouraging feedback was obtained. Most of the students enjoyed group work, gained knowledge and improved their skills and confidence.

Keywords: Foundation course, orientation, professional ethics, community orientation, language and computer skills.

Introduction

The Board of Governors in supersession of Medical Council of India has created a Foundation course of one month duration at the beginning of MBBS course. It has been created to sensitize the fresh medical student with the required knowledge and skills that will assist him/her in acclimatizing to the new professional environment. While the institutions are expected to follow the general

guidelines, institutional level changes can be made depending on the content and requirements¹.

The foundation course has been envisaged to be a one month long program with continued support throughout the year for students to acquire language, communication and computer skills¹.

The major components of the course include an orientation program, skills module, field visit to community and primary health centre, professional development including ethics, sports and extracurricular activities. Orientation program is considered valuable in lowering the anxiety of new workplace, and can benefit both faculty and the new entrants². This is to be further supplemented by language and Computer skills. These components are multifaceted and require resource faculty

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from various disciplines. Many of these identified areas needed to be followed up by outcome based sessions. Various colleges all over the country have developed and implemented this course so as to acclimatize the students to the new environment as per their resources.

The Medical education unit at R.D. Gardi medical college Ujjain also conducted a 1 month Foundation course involving faculties from various departments as well as from outside the institution so as to provide maximum impact of the course. The faculty of the institute was first trained regarding the objectives of the Foundation program and expert faculty were selected to deliver the lectures and provide demonstrations and hands on sessions on various topics. Faculty of Preclinical departments and Medical education unit coordinated the program.

Aims and Objectives:

Primary Objectives:

1. To assess students’ feedback on all topics of all the modules of the Foundation course namely 1) Orientation module, 2) Skills module, 3) Community Orientation module, 4) Professional Development and Ethics module, 5) Language and Computer Skills, & 6) Sports and Extracurricular activities.
2. To get suggestions for improvement of the course.

Secondary Objectives:

1. To assess whether the one month course along with yearlong support is actually achieving its purpose.
2. Improving the subsequent course for upcoming batch based on suggestions given by the students.
3. Restructuring of the teaching methodology if required.

Materials and Method

150 students who were admitted on merit in the MBBS course in 2019 as per MCI regulations were selected for the study. After getting requisite permission from competent authorities (ethical clearance from institutional ethical committee of RD Gardi Medical College) data collection process was started. The study participants were approached for obtaining written valid consent, after which consenting individuals were enrolled in the study. A questionnaire including all the

topics of all the modules of the Foundation course were filled and validated.

It was an observational Study. A questionnaire was designed and validated to assess students feedback on all topics of all the modules of the foundation course namely 1) Orientation module, 2) Skills module, 3) Community Orientation module, 4) Professional Development and Ethics module, 5) Language and Computer Skills, & 6) Sports and Extracurricular activities.

Perception was essentially based on the student’s assessment of the knowledge, skills and confidence gained after the sessions, based on a four point Likert scale.

0 = Poor 1 = Fair 2 = Good 3 = Excellent

The questionnaire was anonymous and students did not write their names on it so as to provide neutral feedback. Only information regarding gender was taken.

1st year MBBS students having more than 75% attendance in the Foundation Course was included in the study. For students admitted late or who have missed some modules of the course, additional classes were arranged so as to complete the modules and fulfill the attendance criteria selected for taking feedback. Those students with attendance less than 75% even after additional classes were not included in the study.

Proforma

S.No..... Gender M/F

**Feedback form for Foundation Course
(MBBS BATCH 2019-2020)**

The overall objective of the Foundation course was to sensitize the learner with essential knowledge and skills. This Feedback form is to evaluate the effectiveness of introducing this Foundation Course just after admission in MBBS Course.

How will you rate your knowledge, skills and confidence BEFORE and AFTER the implementation of Foundation Course?

Please encircle the most appropriate Response:

0 = Poor 1 = Fair 2 = Good 3 = Excellent

	Module & Topic	Response				
1.	Orientation Module					
A	Introduction to institution/campus/facilities	Before After	0 0	1 1	2 2	3 3
B	Role of doctors in Society	Before After	0 0	1 1	2 2	3 3
C	History of Medicine and Alternate systems	Before After	0 0	1 1	2 2	3 3
D	IMG roles/overview MBBS curriculum, various career pathways	Before After	0 0	1 1	2 2	3 3
E	Principles of Family Practice	Before After	0 0	1 1	2 2	3 3
2.	Skills Module					
A	First Aid	Before After	0 0	1 1	2 2	3 3
B	BLS	Before After	0 0	1 1	2 2	3 3
C	Universal Precautions	Before After	0 0	1 1	2 2	3 3
D	Waste management	Before After	0 0	1 1	2 2	3 3
E	Immunization	Before After	0 0	1 1	2 2	3 3
F	Documentation	Before After	0 0	1 1	2 2	3 3
3	Community Orientation Module					
A	National health goals and policies/healthcare systems/community health	Before After	0 0	1 1	2 2	3 3
B	Interactions with patients and families, communities	Before After	0 0	1 1	2 2	3 3
4	Professional Development and Ethics Module					
A	Concept of Professionalism and Ethics	Before After	0 0	1 1	2 2	3 3
B	White Coat Ceremony	Before After	0 0	1 1	2 2	3 3
C	Professional behaviour and Altruistic behaviour	Before After	0 0	1 1	2 2	3 3
D	Working in a Healthcare team	Before After	0 0	1 1	2 2	3 3
E	Disability Competencies	Before After	0 0	1 1	2 2	3 3
F	Cultural Competence	Before After	0 0	1 1	2 2	3 3
G	Stress management	Before After	0 0	1 1	2 2	3 3
H	Time Management	Before After	0 0	1 1	2 2	3 3
I	Interpersonal relationship	Before After	0 0	1 1	2 2	3 3
J	Learning	Before After	0 0	1 1	2 2	3 3

	Module & Topic	Response				
5	Enhancement of Language and Computer Skills					
A	Communication	Before	0	1	2	3
		After	0	1	2	3
B	Local language training	Before	0	1	2	3
		After	0	1	2	3
C	English language training	Before	0	1	2	3
		After	0	1	2	3
D	Computer skills training	Before	0	1	2	3
		After	0	1	2	3
6	Sports and Extracurricular Activities	(Tick Suitable Option)				
A	Sports	Useful	Not	useful		
B	Extracurricular activities	Useful	Not	useful		

Suggestions for Improvement

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Statistical Method: All statistical analysis was done by the help of appropriate statistical software. Validity of the questionnaire will be assessed by Cronbach’s alpha score ≥ 0.7 . For quantitative data frequency distribution, measures of central tendency, dispersion, and graphical representation were applied. For qualitative data frequency distribution, percentage and various diagrammatic representations were applied. Appropriate statistical test like Paired t test were applied. Value of p less than 0.05 will be considered as significant. The analysis was done using the SSPS 24.0 statistical software.

Data Management: Data was collected from the study participants and was managed with the help of a separate proforma for each participant. All the data was coded and entered in MS Excel and SPSS software.

Results

The results depicted are of 148 out of 150 M.B.B.S first year students of 2019 batch; 2 students did not attend the foundation course due to some personal reasons.

There was no significant difference in both the groups with respect to gender and age.

Table 1: Assessment of validity of the questionnaire by Cronbach’s Alpha Score

S.No.	Module	Cronbach’s Alpha Score
1.	Orientation module	0.668
2.	Skills module	0.622
3.	Community orientation module,	0.225
4.	Professional development and Ethics module	0.809
5.	Language and Computer Skills	0.586
	Overall Score	0.878

Data assessed by Cronbach’s alpha score; score ≥ 0.7 signified good internal consistency

Table 1 shows the overall Cronbach’s Alpha Score is 0.878 which indicated that there was good internal consistency of the questionnaire which was used for assessment of students in the Foundation course.

Table 2: Comparison of outcome before and after the implementation of Foundation Course

		Mean ± SD	t	p (value)
Pair 1	Before Orientation module After Orientation module	-7.926±2.466	-39.094	.000
Pair 2	Before Skills module After Skills module	-10.223±2.605	-47.740	.000
Pair 3	Before Community Orientation Module After Community Orientation Module	-3.284±1.218	-32.799	.000
Pair 4	Before Professional development and Ethics module After Professional development and Ethics module	-15.622±4.769	-39.853	.000
Pair 5	Before Language and Computer Skills module After Language and Computer Skills module	-4.905±1.846	-32.336	.000

Data was presented as mean ± standard deviation (SD); p value < 0.05 was considered statistically significant

Table 2 shows results before and after the application of various modules on various topics used in the foundation course of 2019 1st year M.B.B.S students. There was significant improvement in the orientation of the students to the environment and course of the M.B.B.S after the skill module was also statistically significant. The community orientation of the students improved significantly after implementation

of the specific module. There was also significant improvement of knowledge of future doctors about the professional and ethical aspect of doctor's life after attending the module for the above said purpose. There was significant enhancement of language and computer skills of the 1st year M.B.B.S students after undergoing the skills learning module.

Table 3: Correlation of perception of knowledge before and after the implementation of Foundation Course:

		N	Correlation	Sig.
Pair 1	Before Orientation module After Orientation module	148	.374	.000
Pair 2	Before Skills module After Skills module	148	.436	.000
Pair 3	Before Community Orientation Module After Community Orientation Module	148	.226	.006
Pair 4	Before Professional development and Ethics module After Professional development and Ethics module	148	.291	.000
Pair 5	Before Language and Computer Skills module After Language and Computer Skills module	148	.477	.000

p value < 0.05 was considered statistically significant

Table 3 shows results of perception of knowledge before and after the application of various modules in the foundation course of 2019 1st year M.B.B.S students.

There was significant and positive correlation between the implementation of foundation course and knowledge of students after the foundation course.

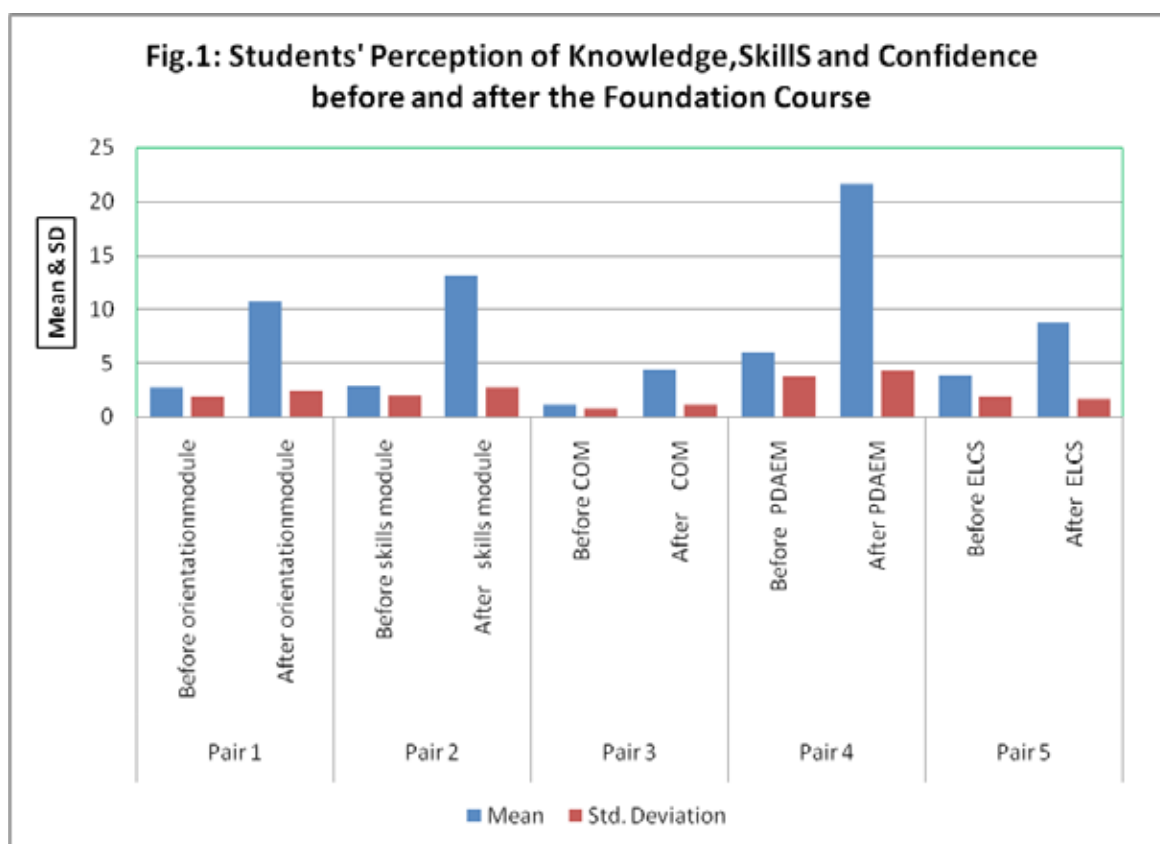


Fig. 1: Shows improvement in perception of knowledge, skills and confidence of the students after the implementation of the foundation course.

Discussion

The present study was undertaken to observe the impact of the foundation course on the students' perception of M.B.B.S course. The Foundation course was introduced by the MCI with the aim to help the newcomers of 2019 MBBS course get oriented to the course of basic medical education in India, the environment pertaining to the study and future workplace of the students, to acquaint them with the professionalism they have to maintain in order to pursue the course and maintain the ethical values related to the profession along with guiding the students to build leadership, communication skills, and other required skills pertaining to the profession of a M.B.B.S doctor¹. We analyzed our study results and found that there was statistically significant difference of knowledge and information between pre and post scores of various modules of foundation course.

Before the implementation of the foundation course, many students did not know much about the institution they are going to continue their M.B.B.S course, many

were not well equipped with the knowledge of the role of the doctors in the society. The program also serves to introduce the newly admitted students to their batch mates and the faculty and will be helpful in promoting effective small groups during the course of study². Our study found significant improvement in the development of skills of the students after they underwent training and moderation in the skills module, in fact the 't' value (47.740) was maximum before and after the implementation of the skills module. The findings of our study find support in the study by Dixit R et al⁴ who also reported improved scores in perception of various modules in foundation course and overall rating for the foundation. Devi J et al⁵ found that there is a eternal impact of orientation program in acquainting students with multiple arenas of medical curriculum. It is the first decisive step in the long journey of medical education.

We searched the literature thoroughly but could not find many studies in favor or against the finding of our study, as foundation course was recently (August 2019) inducted in the 1st year M.B.B.S curriculum as per MCI

directives.

Some studies similar to foundation course were conducted, although not full scale one month course as suggested by MCI but included familiar topics like orientation program, computer language training, professionalism, etc⁴. Findings of our study are in support with the study by Suman s et al⁶ who also found improvement in computer skills in half of the total students following application of an introductory course. In contrast to our findings Himanshu et al did not find any significant improvement of prior knowledge of professional etiquettes and ethics, communication and behavioral skills, community health care, time and stress management among the respondents⁶. Similar to the results of our study, the study conducted by Mittal R et al⁷ and Francis A et al⁸ on M.B.B.S. 2nd year students also observed a greater extent of knowledge gain in topics like professional etiquettes and ethics, communication and behavioral skills, community health care, time management and stress management.

Patel J et al⁹ reported that foundation program for MBBS students at the level of entry, as suggested by the Medical Council of India, helps reduce anxiety of the students and enhances their confidence level.

Our study had some limitations. Student view was taken only by using a questionnaire developed by the authors. Reliability of the questionnaire was tested using Cronbach's alpha but validity was not tested. The questionnaire formed by the authors was not pre-tested. The new foundation program will be able to fulfill the objectives of the students and the faculty members. We will again review this proposed program, after running it for some years.

Conclusion

In our study we found the rating of the foundation course given by the students in the feedback form to be very encouraging. Most of the students not only gained knowledge and improved their skills, but the foundation course also helped them in boosting their confidence level. As the foundation course is a new initiative taken by the MCI for overall betterment of medical (professional) education in India, we suggest that this type of feedback about the program will also help in generating new innovative ways and ideas of teaching which will be beneficial not only for the students but the medical fraternity as a whole and ultimately health of our society and country.

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