Implementation of Foundation Program under “Graduate Medical Regulations 2019” for first professional MBBS students at a Medical College located in western India - A transformative learning experience [version 2]

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Abstract
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Introduction: Students enter new environment in medical colleges at around 17 years of age directly from school which can be challenging. Therefore, in Graduate Medical Regulations 2018 of India, attempt has been made to orient medical learners to MBBS program and provide them with requisite knowledge, communication, technical and language skills through a month-long foundation program. The purpose of this study is to share learning and to document feedback and best practices that would enhance the value and structure of the program in coming years.

Methodology: Descriptive evaluation of the foundation program implemented at a medical college located in western India as per the guidelines of the Curriculum Implementation Support Program (CISP). This program was implemented by all medical colleges under the ambit of Medical Council of India from August 2019.

Teaching-Learning Methods: Interactive sessions and assessment mainly based on reflective writing or by verbal/written feedback. To help in program evaluation and refinements a pretested semi-structured questionnaire administered to the students and faculty to gather their perceptions about various aspects of the course on a Likert scale of 1-5; 5-Strongly agree, 4-Agree, 3-Uncertain, 2-Disagree, 1-Strongly Disagree and three open-ended questions at the end of the course. Data was entered into Microsoft Excel 2007 and descriptive...
statistics utilized for interpretation of perceptions, themes and direct quotation used in the analysis.

Take Home Message: The enthusiasm, hard work and integrated effort by the faculty members who participated in the program were extremely important for the success of this course. It is learnt that the Foundation program highlights benefits, is a valuable vehicle for increasing students' overall confidence. There are challenges involved in operationalization viz; it requires more time and effort from faculty, at least in the initial phases of program development.

Keywords
Curriculum Reforms, Graduate Medical Regulations, Foundation Program, Curriculum Implementation Support Program

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Introduction
A curriculum defines the learning that is expected to take place during a course or programme of study in terms of knowledge, skills and attitudes. The written and published curriculum is the official or formal curriculum. Curriculum or course needs to be monitored and evaluated to ensure that it is working as planned and to identify areas or improvement.

The undergraduate medical curriculum of the Medical Council of India (MCI) has undergone revisions from time to time but the “Regulations on Graduate Medical Education of 2018” represents the first major revision to the medical curriculum since 1997 and hence incorporates changes in science and thought over two decades (Medical Council of India, 2018). The curriculum is created to ensure that the medical doctor who emerges from the MBBS training program is capable of assisting the nation to achieve its goal of “Health for All”, now modified as “Universal Health Coverage”. As part of the roadmap to the curricular roll out - a nationwide Curriculum Implementation Support Program is being cascaded in a ‘train the trainer’ format hence, capacity building in the form of basic and advanced support for faculty is an ongoing activity of the MCI (Medical Council of India, 2019a). The structural framework of support includes the Medical Education Unit (MEU) of the institutions and the Nodal and Regional Centers of the MCI. To these, the MCI has added the governance oversight of the curriculum in the form of the Curriculum Committee (CC) at the institutional level. The members of CC have the responsibility of training faculty of their respective colleges. The educators are required to impart transformative learning to create leaders in healthcare delivery system for the community. The thrust in the new Regulations is continuation and evolution of thought in medical education making it more learner-centric, patient-centric, gender-sensitive, outcome oriented and environment appropriate. The training is intense and demands greater commitment, resilience and lifelong learning. The revised curriculum was implemented by all medical colleges under the ambit of MCI in August 2019. The roll out of the overall curricular reforms will be progressive over the duration of the MBBS course.

Students enter new environment in medical colleges at around 17 years of age directly from school which can be challenging. Therefore, in the new curriculum attempt has been made to allow students from diverse educational streams and backgrounds in terms of geography, culture, language, economy, social construct, medium of instruction and education boards to transition appropriately from school to professional course through a foundation program (Medical Council of India, 2019b). The Unipage (2020) describe in their home page that “School education in different countries lasts 11 or 12 years. At schools in the USA, Canada, Australia, New Zealand, Singapore, Japan, as well as in most of the European countries, it takes 12 years to get secondary education. Preparation Courses, which are available in every large university, can provide entrants with the missed year of school education, serious language training”. Further, the importance and advantage of this type of orientation program has been stressed by Mittal, Mahajan and Mittal (Mittal, Mahajan and Mittal, 2013).

This foundation program is of one-month duration, offered at admission to orient medical learners to MBBS program and provide them with requisite knowledge, communication (including electronic), and technical and language skills. The purpose of this study is to share learning and to document feedback and best practices from the implementation of foundation program during August 2019. It is believed that this learning experience would enhance the value and structure of the program in the coming years.

Methods
As per the new curriculum guidelines (Medical Council of India, 2018), every year in the month of August a one-month foundation course needs to be implemented at the inception of first MBBS.

Purpose of the Foundation Program/course is;

1. To orient the undergraduate medical students to all aspects of the medical college environment.

2. To equip them with certain basic, but important skills required for patient care and enhancing their communication, language, computer and learning skills.

3. To provide them opportunity for faculty and peer interactions and an overall sensitization to the various learning methodologies.

It contains six modules like; Orientation, Skills, Community orientation, Professionalism & ethics, Enhancement of language, computer skills, Sports and Extracurricular activities (Medical Council of India, 2019b). Each module has specific topic wise hour distribution with special hours allotted to sports and extracurricular activities in-between as shown in Table 1.
Study setting & participants: A month-long foundation program commenced on 1st of August 2019, at a Medical College located in western India. A batch of 200 students; 56 (28%) females and 144 (72%) males, from all medium of instructions, took admission to the first professional course of MBBS, through an all India entrance test in the form of National Eligibility cum Entrance Test (NEET), after successful completion of twelve years of schooling. NEET is MCQ based test offered in twelve Indian languages.

Curricular Governance: The governance oversight of the curriculum took place through the Curriculum Committee (CC) and the program was owned and conducted by the pre-clinical departments with appropriate input and faculty support by other departments. A foundation Program/Course Committee with a designated foundation program co-ordinator was formed under the principal of the Medical College in collaboration with the Curriculum Committee and MEU for smooth conduction of the foundation course. MEU undertook faculty development program to train and orient the resource persons. The curriculum committee co-ordinator in close collaboration with the foundation program committee members prepared a detailed schedule of the sessions for one month and allocated the sessions to the resource persons (including external resource persons from outside the college, if necessary). They closely monitored the program on a daily basis and coordinated with the administration, students and clinical faculty.

Ethics: Verbal consent was obtained from students and faculty before administration of questionnaire and use of photographs for research purpose. The protocol of the program was submitted to the Institutional Ethical Committee. The same was approved with no: PDUMCR/IEC/2376/2020, dated: 15/02/2020.

Objectives of the implementation of foundation program were: To gather perceptions of the students and faculty about various aspects of the course; to document feedback and best practices.

Design: The current study is a descriptive evaluation of the foundation program implemented at a government medical college located in western India.

A detailed schedule was prepared well in advance showing all the aforementioned modules with their respective topics and as per the guidelines of the Foundation Program (Medical Council of India, 2019b). On very first day a parent-student-faculty meet was organized and the session was inaugurated by the Principal of the college in presence of a spiritual leader to congratulate, motivate and bless the newly admitted students. Students were appraised regarding the institute and university rules & regulations and anti-ragging environment of the institute. On subsequent days, internal & external guest faculty interacted with the students regarding doctor patient relationship, role of a doctor in the society and the role of an Indian Medical Graduate (IMG).

Most of the orientation/learning took place in hospital setting by dividing the students into small batches of five. They were then taken to community health center, accompanied by faculty from community medicine department. Before visiting these centers, the students were appraised on various National Health Policies and Healthcare System of India. Simultaneously, in rotation these batches undertook stress management & computer skills training. There were detailed sessions on professionalism and ethics module; viz interpersonal relationships, professional and altruistic behavior, time management, learning strategies, disability competences, organ and dead body donation awareness, ragging etc. Dedicated time slots were allocated for local (Gujarati) and English language skills for the students joining from outside Gujarat and from Gujarati medium respectively. There were separate sessions on communication skills and basic

| S. No | Themes/ subjects/contents                      | Total teaching hours |
|-------|------------------------------------------------|---------------------|
| 1     | Orientation to medical profession, curriculum, institute, alternate health care system, society etc. | 30                  |
| 2     | Skills Module-first aid, basic life support, bio safety etc. | 35                  |
| 3     | Field visit to community health center.       | 8                   |
| 4     | Professional development including ethics.    | 40                  |
| 5     | Language/ computer skills                     | 22                  |
| 6     | Sports and Extracurricular activities         | 40                  |
|       | Total teaching hours                          | 175                 |

Table 1: Structure of the Foundation Program for the students
computer skills as per the schedule. A protected time was allocated to the students for reflective writing/journal to reflect on their learning of various sessions.

To conduct and to complete the entire foundation program effectively and as per schedule a total of 60 faculties contributed their time and efforts. Out of which, 8 were invited as guest faculty from various specialties, who were awarded certificate of appreciation. Others were; the internal faculty from various departments of the institute.

**T-L Methods:** The shift in focus from knowledge acquisition to application necessitates important changes in the learning process: Therefore, the “Regulations on Graduate Medical Education” (Medical Council of India, 2018) lays great emphasis on (a) shared responsibility in the learning process (b) self-directed and collaborative learning. Dedicated time for self-directed learning is provided in each subject in every phase (c) use of learner centric approaches (d) skill acquisition and certification e) formative assessment as integral to the learning process (f) progressive increase in the complexity of learning (the so-called ascendancy in competencies). Didactic lectures are restricted to one third of the schedule; two third of the schedule include; interactive sessions, practical, clinical or/and group discussions. The learning process includes; living experiences, problem-oriented approach, case studies and community health care activities.

Therefore to motivate students to develop the habits of self-directed learning, greater emphasis in the foundation program was laid on student engagement techniques viz; symposia, seminars, panel discussion, small group discussions with gallery walk, problem-oriented and problem-based discussions assisted by videos, poster and slogan preparation, drama, role play, sports and games, think pair share, visit to hospital, visit to community health centers and collaborative and team based learning as shown in Figures 1-4. A poster and slogan competition carried out on a theme of “anti-ragging” turned out to be very innovative and informative as shown in Figure 2.

Ragging involves abuse, humiliation or harassment of new entrants or junior students by the senior students. It often takes a malignant form wherein the newcomers may be subjected to psychological or physical torture. Ragging initially began as an innocent tradition to get new students acquainted with each other but has gradually become a method by which anti-social elements of the institute assert their dominance on the campus. Although ragging can happen in any college, it is most prevalent in medical and engineering colleges. In India, ragging is banned in all campuses. Such acts are punishable by fines of up to Rs. 50,000, jail terms ranging from six months to 10 years, and awarding of certificates that “the student had indulged in ragging” which can adversely affect career prospects.

![Presentation of group work by students](image-url)
Formative and Internal assessment: Foundation program is compulsory under the new regulation (Medical Council of India, 2018) and an attendance of 75% is essential, hence this criterion was conveyed to the students on the very first day of their joining the program. Throughout the program a complete record of attendance was kept to maintain punctuality.

Figure 2: Learner-centric Approach; Problem-oriented and Problem-based learning

Figure 3: Shared responsibility in the learning process

Slogan & poster on ragging by students

Oath taking ceremony on World fitness day

Students involved in “Think-pair-share”
and regularity. 96% of the students met the criteria of 75% attendance. As per the GMR, the students were informed that their performance in the foundation program shall not contribute towards internal assessment marks. However, the students completed reflective writing journals to reflect on their learning as part of formative feedback assessment to the students and the faculty. A feedback session on the last day of the program took place in a large lecture hall. The students were explained that the importance of feedback was to bring improvement in the program to be scaled up for subsequent batches. A pretested, semi-structured questionnaire was administered to the students and faculty to gather their perceptions about various aspects of the course on a Likert scale of 1-5; 5=Strongly agree; 4=Agree; 3=Uncertain; 2=Disagree; 1=Strongly Disagree and three open-ended questions. This was followed by a token of appreciation to students winning poster competition and others. Voluntary verbal feedback was obtained by four students of both genders. The data was entered into Microsoft Excel 2007 and descriptive statistics utilized viz: Mean, SD and Confidence Interval for quantitative data and % for qualitative data. For interpretation of perceptions themes were analyzed and direct quotation are used in the analysis.

Results/Analysis
Program Evaluation:
The revised curriculum, was introduced for the first time and implemented by all medical colleges under the ambit of MCI in August 2019. A batch of 200 students; 56 (28%) females and 144 (72%) males, took admission in the first professional course of MBBS at the Medical College studied in August 2019. We describe the design, implementation and evaluation of one-month long foundation program, the students undertook after admission. Out of the 200 students in the class, 189 were present on the last day to offer feedback, although they were informed a day before. Due to busy schedule and heavy OPD duties in the mornings, only four internal faculties out of the 52 who participated in the program were present on the last day. Others were tried to be contacted through sending the questionnaire at their respective places and after two reminders 18 of them completed the same.

(A) Evaluation by the Students:
The mean score by students to various aspects of the program on a scale of one to five as shown in Table 2 is above average (4 for majority of the aspects) except for the “Need of Assessment” which reinforces that there is no need for formal assessment in this program. Similar overall rating (Dixit et al., 2019) is reported in the range of 4.19±0.61 for the foundation course.
Further research (Mittal, Mahajan and Mittal, 2013) reported factors facilitating good learning based on students’ view as; topic selection pertaining to clinical cases, good presentations, good and experienced speakers, and interactive faculty. In their study 67% of the participants labelled the foundation program a very good exercise. And few inhibiting factors as reported by them being; technical assistance like poor electricity backup, sound system, and long duration of the lectures. These findings are similar to our findings.

Rapport, et al. (2009) report that perspectives of students when obtained provide richer experiences and in-depth understanding of issues at hand than quantitative data alone. We also made efforts to gather perspectives of students through few open-ended questions as shown in Table 4 where the students quoted that, the Foundation Program highlights benefits, is a valuable vehicle for increasing students’ overall confidence. The program benefits as perceived by the students included; helping them to gain clarity on their future roles as medical professional/doctor as envisaged by MCI, orienting them to medical ethics and professionalism, enhancing their time and stress management skills, enhancing their communication, language, computer and learning skills. However, there are challenges to overcome viz; optimum resources in terms of infrastructure for sports, audiovisual aids and others. Inclusion of in-depth qualitative feedback from faculty and students would yield better insight into scaling of the program.

The Foundation Course enables the First-year students to acquire the basic knowledge and skills required for all the subsequent phases in MBBS course and later on their medical practice and career (Srimathi, 2014). Similar feedback responses (Singh, Ghosh and Pandya, 2007), report high level of satisfaction on part of students enabling them to cope with the vast body of knowledge and skills required in the dynamic and rapidly changing healthcare system.

### Table 2: Score given by students for various aspects of the program (Max: 5, Min:1)

| Sr No | Statement                                                                                                                                   | Mean (SD)   | 95% CI     |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------|
| 1     | Foundation program was an enjoyable learning experience                                                                                       | 4.06 (0.80) | 2.49 – 5.63 |
| 2     | An effective program to make one realize “What the profession of doctor is”?                                                                 | 4.60 (0.56) | 3.48 – 5.67 |
| 3     | Various activities and discussions had a stimulating effect on one’s feelings / emotions                                                     | 4.00 (0.76) | 2.46 – 5.37 |
| 4     | It helped know peers, faculty and new environment.                                                                                            | 4.30 (0.75) | 2.83 – 5.78 |
| 5     | Shall enhance the ability to communicate with peers and teacher due to teaching of communication skills                                       | 4.00 (0.81) | 2.34 – 5.51 |
| 6     | Shall enhance the ability to manage time better                                                                                               | 4.02 (0.78) | 2.48 – 5.55 |
| 7     | Shall enhance ability to deal with stress effectively                                                                                         | 4.00 (0.93) | 1.97 – 5.61 |
| 8     | Most of the students were given opportunity to get actively involved in the program                                                           | 4.23 (0.87) | 2.51 – 5.93 |
| 9     | The learning environment was comfortable and relaxing in most of the sessions                                                               | 4.00 (0.89) | 2.08 – 5.58 |
| 10    | The teachers involved in conduct of sessions were knowledgeable and conducted the sessions well                                               | 4.38 (0.76) | 2.89 – 5.88 |
| 11    | The teachers were very approachable and gave freedom to ask questions                                                                      | 4.60 (0.67) | 3.27 – 5.91 |
| 12    | We had freedom to express fully during various activities of the program                                                                    | 3.70 (0.87) | 1.98 – 5.39 |
| 13    | The speakers spoke the language that was easily understood                                                                                    | 4.00 (1.09) | 1.75 – 6.05 |
| 14    | The time managed by the speakers was appropriate                                                                                              | 3.73 (0.95) | 1.86 – 5.59 |
| 15    | Course is necessary to begin with, as it provided knowledge and a strong foundation for my medical studies and career as doctor                   | 4.52 (0.76) | 3.03 – 5.998 |
| 16    | Decreased fear/tension and increased overall confidence as a medical student                                                                | 4.07 (0.81) | 2.488 – 5.65 |
| 17    | Need of assessment / exam at the end of the course to check what has been learnt.                                                             | 2.00 (1.15) | -0.34 – 4.16 |

SD: Standard Deviation, CI: Confidence Interval

Table 3 summarizes the perceived strengths and weaknesses of the program by the students.

Further research (Mittal, Mahajan and Mittal, 2013) reported factors facilitating good learning based on students’ view as; topic selection pertaining to clinical cases, good presentations, good and experienced speakers, and interactive faculty. In their study 67% of the participants labelled the foundation program a very good exercise. And few inhibiting factors as reported by them being; technical assistance like poor electricity backup, sound system, and long duration of the lectures. These findings are similar to our findings.

Rapport, et al. (2009) report that perspectives of students when obtained provide richer experiences and in-depth understanding of issues at hand than quantitative data alone. We also made efforts to gather perspectives of students through few open-ended questions as shown in Table 4 where the students quoted that, the Foundation Program highlights benefits, is a valuable vehicle for increasing students’ overall confidence. The program benefits as perceived by the students included; helping them to gain clarity on their future roles as medical professional/doctor as envisaged by MCI, orienting them to medical ethics and professionalism, enhancing their time and stress management skills, enhancing their communication, language, computer and learning skills. However, there are challenges to overcome viz; optimum resources in terms of infrastructure for sports, audiovisual aids and others. Inclusion of in-depth qualitative feedback from faculty and students would yield better insight into scaling of the program. “The Foundation Course enables the First-year students to acquire the basic knowledge and skills required for all the subsequent phases in MBBS course and later on their medical practice and career” (Srimathi, 2014). Similar feedback responses (Singh, Ghosh and Pandya, 2007), report high level of satisfaction on part of students enabling them to cope with the vast body of knowledge and skills required in the dynamic and rapidly changing healthcare system.
Almost all of the 18 faculty who completed the feedback questionnaire rated the various aspects of the program as good to very good (between 3 to 5 of 5). Major strength of the program was that; the students were thoroughly interested, the program provided them a common platform and enhanced coordination between different faculty. Some of the suggestions for improving the program were; need to involve a greater number of external faculty from specific subjects like language (English, vernacular- Gujarati), sports, computer, advance planning, greater co-ordination among faculty, optimum and adequate resources, duration of didactic lecture be made shorter.

One of the faculty put it like this, “the strength of this program is that students are aware about the whole MBBS curriculum but the challenge is that resource persons from outside needs to be invited”.

One another said “what I observed was, some students were thoroughly interested while some were not. So, extra efforts should be made to make every student interested in the program. Also, that the sessions should be made short and sweet”.

**Discussion**

**Lessons learnt:** It is learnt that the Foundation Program highlights benefits, is a valuable vehicle for increasing students’ overall confidence. The program benefits as perceived by the students included; helping them to gain clarity on their future roles as medical professional/doctor as envisaged by MCI, orienting them to medical ethics and professionalism, enhancing their time and stress management skills, enhancing their communication, language, computer and learning skills, oriented them towards alternative systems of medicine, exposure to hospital and community health centers provided opportunity to communicate with the patients and their relatives leading to realization of the authentic setting of their future role, orienting them towards importance of sports and extracurricular activities to mention a few. Based on faculty feedback, this provided a common platform and enhanced coordination between different faculties. We also learned that there are challenges involved in operationalization viz; it requires more time and effort from faculty, at least in the initial phases of course development. Other challenges include; finding ways to include a greater number of external faculty from specific subjects like language, sports and computer skills, sound planning and co-ordination among faculty along with strong will of those involved, optimum resources in terms of infrastructure for sports, dedicated vehicle for visits to community health centers and audiovisual aids. Inclusion of in-depth qualitative feedback from faculty and students would yield better insight into scaling of the program.

**Table 3: Summary of findings about perceptions of students for various aspects of the course**

| Areas with good feedback (strengths) | Areas that need improvement (weaknesses) |
|-------------------------------------|----------------------------------------|
| Increased Students’ confidence      | Technical problems causing inconvenience viz, audio visual aids |
| Enhanced knowledge on topics: viz Basic Life Support (BLS), Biomedical Waste Management (BMW), Immunization, Documentation, etc. | Inadequate infrastructure; lecture hall being small to accommodate 200 students, no availability of water at the time of session |
| Role clarity on 5 roles of IMG, viz: professionalism, lifelong learner, leader, communicator, clinician | Non availability of outdoor games facilities viz, playground, cricket kit, sports equipment, sports teacher |
| Oriented about Professionalism & Ethics | Some lectures were found to be long and boring |
| Improved skills for stress management and time management | Language barrier to AIQ (All India Quota) students to communicate in vernacular (Gujarati) language |
| Appraised about the importance of Yoga and Alternative Medicine | |
| Good exposure to hospital setting through visits and observation and exposed to community level health centers viz; Urban Health Center where opportunity was given to communicate with the patients and their relatives | |
| Sports and extra-curricular activities were enjoyable and destressing | |
| Group activities were enjoyable and interesting | |
| Knowing each other increased the comfort level to express self in front of the class | |
**Table 4: Major themes regarding the foundation course emerging from open-ended responses of students’ and quotes**

| Themes                        | Students’ Quotes                                                                 |
|-------------------------------|----------------------------------------------------------------------------------|
| Confidence Building           | 1. “The most beautiful thing was that I overcome my own fear not fully but I did. I faced 200 students watching at me and I said what I learnt and what I felt in sessions. So, it was very good experience.”  
2. “It was a great opportunity to express ourselves in front of all during foundation program.”  
3. “I was able to gain confidence on myself. I began to love myself. I face my fears, one of which was speaking on stage. I participated in activities in which I thought I was never capable of. I made very good friends through the way of one month. It was amazing.” |
| Skill Acquisition             | 1. “We learnt very essential & basic skills from this foundation course. It was well organized. I learnt to develop a good personality, leadership and professionalism which is very important in the career of a doctor. It will be very much useful for us in our future. I learnt how to interact with my peers, teachers, patients and with other people. It will improve my communication skill also.”  
2. “We were able to enhance our knowledge on topics: viz Basic Life Support (BLS), Biomedical Waste Management (BMW), Immunization, Documentation, etc.” |
| Enhanced communication skills | 1. “We learnt to communicate with people in society because of foundation program.”  
2. “It will improve my communication skill also” |
| Field/Community Visits        | 1. “Field visits made our perspective clearer about practicing as doctor, different type of patients and how to deal with them, perception of people about a doctor and we also realized our responsibility.”  
2. “It was really helpful to visit community health center which increased our communication ability.”  
3. “Hospital visits, urban healthcare center visits were undoubtedly the best part of the program. They allowed us to engage freely and obtain hands on experience about out health care system.” |
| Suggestions                   | 1. “I suggest the future students to attend all the sessions of foundation program as it helps a lot.”  
2. “Some lectures were found to be long and boring; they can be made more specific and precise.”  
3. “There is need to strengthen infrastructure, outdoor sports and audio-visual aids.” |
| Overall support               | One of the students put it like this; “I am very fortunate to attend this program of foundation course. I would like to thank every faculty who took session. It was really helpful to increase my confidence, knowledge, belief to my profession, mental abilities. It was really helpful to visit community health center which increased our communication ability. However, some of the technical problem caused inconvenience during sessions and sometimes the required things were not available.” |

**Conclusion**

To summarize, we learned that this type of foundation program is feasible within a conventional medical curriculum. The benefits of such learning include clarity on future roles as medical professional/doctor as envisaged by MCI right from intake into the program, thus improving knowledge and skills of learners, and hence likely to improve quality of health care provided to the patients.

**Limitations:** One of the limitations of this study is that it evaluated single medical school, which may not represent the “Indian Medical Graduate” as a whole. Therefore, caution should of course be exercised in extrapolating results to all students in all medical schools. Further studies should aim to determine attitudes of medical students in all medical schools of India to get higher generalizability.

**What Next:** The learning and best practices would be shared, by organizing a dissemination seminar for faculty, professional and regulatory bodies and members of the university’s board of studies committee. Enlisting support and feedback from different colleges of the state would result in achieving uniformity in implementation of the program. It is believed that this learning experience would enhance the value and structure of the program in the coming years. Inclusion of in-depth qualitative feedback from faculty and students would yield better insight into scaling of the program.
Take Home Messages

- The enthusiasm, hard work and integrated effort by the faculty members who participated in the program were extremely important for the success of this program.

- It is learnt that the Foundation Program highlights benefits, is a valuable vehicle for increasing students’ overall confidence. The benefits of such learning include clarity on future roles as medical professional/doctor right from intake into the program, thus improving knowledge and skills of learners, and hence likely to improve quality of health care provided to the patients.

- There are challenges involved in operationalization viz; it requires more time and effort from faculty, at least in the initial phases of course development. Other challenges include; finding ways to include a greater number of external faculty from specific subjects like language, sports and computer skills, sound planning and co-ordination among faculty along with strong will of those involved, optimum resources in terms of infrastructure for sports, dedicated vehicle for visits to community health centres and audio-visual aids.

- We learned that this type of program is feasible within a conventional medical curriculum.

Notes On Contributors

Dr. Shobha Misra is working as Professor and Head of department of community medicine at P D U Medical College, Rajkot. She holds degrees in community medicine, naturopathy & yoga, hospital administration, mother & child health, human resource management. She is FAIMER fellow from Philadelphia and has been honoured with F-IAPSM. She has a teaching experience of 28 years. She is actively involved in teaching and training of health professionals. She has 40 publications in various national and international journals to her credit.

Dr. Nilesh Fichadiya is working as lecturer in department of community medicine at P D U Medical College, Rajkot. He is involved in teaching undergraduate professional MBBS students for last 10 years. He is MD in community medicine and diploma in public health. He is also working as program incharge for certificate course in community health being conducted at community medicine department.

Dr. Viren Kariya is working as Associate Professor in department of Anatomy at P D U Medical College, Rajkot for last 15 years. He was the program coordinator for the program.

Declarations
The author has declared that there are no conflicts of interest.

Ethics Statement
The protocol of the program was submitted to the Institutional Ethical Committee of P D U Government Medical College, Rajkot, Gujarat, INDIA and the same was approved with no: PDUMCR/IEC/2376/2020, dated: 15/02/2020.

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Supplementary Files
Supplementary file 1 - Revised Article_Foundation Program.docx

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Open Peer Review

Migrated Content

Version 2

Reviewer Report 11 October 2021

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Richard Hays
James Cook University

This review has been migrated. The reviewer awarded 3 stars out of 5

Student contributions are always welcome and this is no exception. The concept of a nation-wide, 4 week-long foundation program for entering medical students is interesting. I believe that most medical schools have programs that ease new students into what is often very intense study, but in most cases I have seen this is usually within the first 1-2 weeks. For secondary school leavers this can be a steep learning curve to different modes of learning with greater autonomy and responsibility. Hence this description is useful, showing how a slower, planned process engages new students. What leapt out at me in the data were a suggestion that the program may have been a little too teacher-centric, with a lot of faculty driven content in lectures. Perhaps more student-run activities with more senior students would add values? The take home messages show that the faculty are thinking about making improvements. Overall this is well worth reading by those engaged in Year 1 course management.

Competing Interests: No conflicts of interest were disclosed.

Reviewer Report 05 October 2021

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Ken Masters
Sultan Qaboos University
This review has been migrated. The reviewer awarded 4 stars out of 5

I am pleased to see that the authors have addressed the major concerns I raised with Version 1 of their paper. The Discussion, though, is still very weak, and the authors have missed the opportunity for this study to be more solidly placed within the literature on the topic. (That said, some of the material they placed into the Results does serve this purpose, but it would have been more appropriate to place it in the Discussion). Nevertheless, the paper is a useful read and contribution to the field. Thank you.

**Competing Interests:** No conflicts of interest were disclosed.

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**Version 1**

**Reviewer Report 11 June 2020**

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**Ken Masters**

Sultan Qaboos University

This review has been migrated. The reviewer awarded 3 stars out of 5

The paper deals with student and staff perceptions towards the introduction of a Foundation program at a medical school in order to meet changes in guidelines. Overall, the study has been well-conducted. There are, however, areas that need to be addressed.

• Introduction: Apart from the local administrative documentation, there is no literature referenced. The problem with doing that is that it confines the importance of the research to a very localised context only. If the authors wish the paper to have interest to a wider audience, then they need to broaden their literature – at the very least, they need to refer to academic literature dealing with these issues in India, by going beyond the three pieces that they have cited.

• Results: I would like to see the qualitative data laid out more formally according to themes (Identification of theme, followed by 2-3 supporting quotations). At the moment, the qualitative data are simply deposited on the page, with no real context.

• The Discussion is weak with, again, no reflection on the results in light of current literature. If the authors leave it as it is, then it remains a paper with very localised interest only. The authors need to be able to relate their results to current literature on the topic.

• Minor

  • There are many small language errors, especially in dropping articles, and I would encourage the authors to carefully proof-read their manuscript before re-submission.

  • The term “ragging” as it appears to be used in this paper, is not universally known, and should be explained. So, while the study is worthwhile, the authors have done themselves a disservice by not viewing their study
within the broader context. I look forward to a Version 2 in which this is corrected.

**Competing Interests:** No conflicts of interest were disclosed.

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**Reviewer Report 13 April 2020**

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Puja Dulloo  
Pramukhswami Medical College

This review has been migrated. The reviewer awarded 3 stars out of 5

Interesting article on the foundation program as per the revised competency based undergraduate medical curriculum drafted by Medical Council of India (MCI). Introduction, methodology, and analysis of data have been well explained. My suggestions for intensification of the manuscript are follows: It would have been best to obtain written consent at the beginning of the study once ethical approval was acquired by the institutional ethical authority, since you have presented students pictures, their poster presentation and role play. Validation method of questionnaire has been described. Why this questionnaire was not filled by all the students if everyone had undergone the program (being mandate as per council guidelines). Out of 60 faculty members only 18 filled the feedback form, no specific reason has been highlighted by the author. The authors can compare this program with similar programs globally or it would have been good to compare it with the orientation program being conducted by various Indian medical institutes for previous batches. How this program is better than the earlier orientation program? Quotes from the students could generate a theme thus present as a qualitative analysis of the presented data. The authors need to have continuous focus on this batch so as to identify attitudinal modification of the students as they move ahead. All the best for further analysis of the study.

**Competing Interests:** No conflicts of interest were disclosed.

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**Reviewer Report 04 April 2020**

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P Ravi Shankar  
American International Medical University

This review has been migrated. The reviewer awarded 4 stars out of 5

This is an interesting article on the foundation program at a medical school in western India. The authors have put in a lot of effort into designing and conducting the program and in carrying out the study. The study is well described and the methodology is clear. My suggestions for further strengthening the manuscript follow: The authors can mention the process followed for selecting medical students in India and mention that most students join the program after twelve years of schooling. The authors have obtained ethical approval for the study but the fact that they obtained only verbal consent may raise some ethical issues. This is especially true as they have also used identifiable student photographs in the article. The same is also true with regard to the participation of faculty members. Where, how and when were the questionnaires administered? The participation of the faculty was low while I believe all students who were present on the final day of the session participated in the study. Where were the sessions held? One challenge would be accommodating the large number of students (200). From the photographs it seems like most sessions were held in lecture halls. The proportion of female students in the college is low. What is the relationship between the MEU and the curriculum committee? The authors in the Discussion can try to compare the foundation program with other similar programs globally though the duration and the methods employed may be different. All educators, especially those from India, will find this article to be of interest.

**Competing Interests:** No conflicts of interest were disclosed.