

Introduction of Professionalism in Medical Undergraduate Students at Government Medical College of Central India

Archana Dhotre¹, Sarika Munghate², Komal Meshram³, Vinita Belsare⁴

¹Professor, Department of Biochemistry, GMC, Nagpur

²Associate Professor, Department of Biochemistry, GMC, Nagpur

³Assistant Professor, Department of Biochemistry, GMC, Nagpur

⁴Professor and Head, Department of Biochemistry, GMC, Nagpur

Corresponding Author: Komal Meshram

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ABSTRACT

INTRODUCTION: Professionalism is a fundamental competency for medical graduates mandated by Medical Council of India, reflecting the ethical values, behaviours, and responsibilities expected of future physicians. A rise in reports of misconduct and ethical lapses underscores the need for formal professionalism training in medical curricula. This study aimed to assess baseline knowledge of professionalism among second-year MBBS students, sensitize them through structured teaching and evaluate the post-intervention change in their understanding and perceptions.

MATERIAL & METHODS: An interventional study was conducted over six months among 96 second-year MBBS students. A validated questionnaire containing 12 open-ended questions (maximum score: 46) was used to assess baseline knowledge through a pre-test. Students were then sensitized using lectures, PowerPoint presentations, and role-play sessions. A post-test using the same questionnaire measured the knowledge gained. Mean pre- and post-test scores were compared using a paired t-test, and percentage improvement was calculated for various components of professionalism.

RESULTS: The mean score increased significantly from 5.09 (± 2.32) to 29.66 (± 9.84) following the intervention ($t=27.18$, $p<0.0001$). Component-wise improvements were observed in understanding professionalism and its attributes (94.36%), hidden curriculum and patient confidentiality (86.31%), students' role in addressing unprofessional behaviour (76.65%), and attributes of good professional behaviour (66.11%). The overall improvement was 82.07%.

DISCUSSION: The intervention demonstrated that professionalism can be effectively taught using interactive methods such as lectures and role-play. Improved scores highlight the value of early structured training in shaping ethical and professional attitudes and hence should be incorporated systematically into the curriculum.

Keywords: Medical professionalism, MBBS students, ethics education, knowledge assessment, undergraduate curriculum.

INTRODUCTION

The Medical Council of India 'Regulations on Graduate Medical Education' 2012 and recent 2019 states that the medical student should have obtained, at the time of graduation from the M.B.B.S. program, a set of competencies which includes the following attributes of professionalism: (i) Be an effective communicator and a lifelong learner (ii) Be able to perform an objective self-assessment and (iii) Be able to demonstrate and practice selflessness, integrity, responsibility, accountability and respect.^[1] In general, professionalism can be summed up as "the attributes, behaviours, commitments, values, and goals that characterize a profession." In the medical profession, it is slightly different because of its strong societal role and the emotional component involved. Simplifying it to its bare bones, professionalism is a habitual construct which includes key beliefs and virtues that will build the trust of the public on doctors.^[2]

Going further, the American Board of Medical Specialties asserts that "medical professionalism is a (normative) belief system about how best to organize and deliver health care, which calls on group members to jointly declare ("profess") what the public and individual patients can expect regarding shared competency standards and ethical values and to implement trustworthy means to ensure that all medical professionals live up to these promises."^[3] Professionalism competence is the "habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community being served."^[4] The definitions have been differing and evolving across space and over time. The more recent definitions are increasingly catered to include behaviour that is easily observable and probably quantifiable too. The attributes and behaviours of professionalism are accountability, altruism, commitment to excellence, compassion,

integrity, respect, responsiveness, sensitivity to diversity, and sound ethics.^[5, 6]

The reasons for providing medical professionalism training and assessment to medical students and practicing physicians include the patients' expectations; the relationship between professionalism and improved clinical outcomes (i.e., the relationship between unprofessionalism and its consequences); the accreditation of organizational needs; and the observation that professionalism can be taught, learned, and assessed.^[7] Methods of teaching professionalism including lectures, group discussion, simulations and role modelling should be assessed to ensure that medical students and practicing physicians are competent in medical professionalism.^[8] The critical role of education and mentorship in inculcating right values from the start of medical training. The students' training will enable them to observe and imbibe appropriate attitude and behaviour. The students can practice what they have learnt during the formal training sessions in professionalism.^[9] The goal is to develop a professionally sound Indian Medical Graduate (IMG) who thrives for excellence; is ethical; responsive and accountable to patients, community, and profession, by undergoing training through a longitudinal program stretched across full MBBS course in professionalism and ethics; and applies these principles of bioethics, professionalism, and law to provide effective medical care to the patient and responsible health care to the community.^[10] Keeping this in mind, the present project was carried out to introduce professionalism in medical undergraduates of one of the medical colleges of central India. The objectives of the study were (i) To assess the knowledge about medical professionalism among medical undergraduates. (ii) To sensitize medical undergraduates about medical professionalism. (iii) To assess the post intervention, increase in knowledge in medical under graduates about medical professionalism.

(iv) To interpret the Perceptions about medical professionalism among undergraduate students.

MATERIALS & METHODS

An interventional study was conducted in the Department of Biochemistry of one of the medical colleges of central India. The duration of study was 6 months from October 2018 to March 2019. Participants for the project were second year MBBS students who were voluntarily willing to participate in the study. The sample size was 100 but only 96 participants have completed the study. Approval from the Institutional Ethical Committee was obtained before commencing the study. The data collection method was questionnaire-based survey and the data collection tool was designed in the form of questionnaires. The validation of the questionnaires was done by Experts from Medical Education Technology (MET) Cell.

The study plan was as follows: Firstly, a questionnaire was designed which covered the different aspects of professionalism. A pre-test was conducted through a questionnaire containing 12 open ended questions. Marks allotted to each question

were displayed clearly. The total marks were 46. The students were asked to complete the pre-test at the beginning of the study to have an idea about their basic knowledge about the topic 'introduction of professionalism.' The next step was to sensitize the students towards 'introduction of professionalism' by Lectures and PowerPoint presentation highlighting on the topic under consideration. The third step was conducting role play. A role play on professionalism was conducted for better understanding by the students. A post-test was taken on the same set of questionnaires given for pre-test, to assess their new level of understanding of the topic.

The pre-test and post-test answer sheets received from each of the 96 participants were corrected. The answers were compared with model answers. Marks were allotted on a total of 46 to each of the pre-test and post-test answer sheets and the marks recorded on a chart. The mean pre-test scores of the participants were compared with the mean post-test scores of the same participant. Paired t-test is applied and p-value is calculated to check for the significance.

RESULT

Table No.1 Comparison of Mean Pre-test score and post-test score of medical professionalism in Medical Undergraduates

	Pre test	Post test	t-value	p-value
Mean	5.09	29.66	27.1857	<0.0001 HS
SD	2.32	9.84		
Median	5	30		
Range	2-14	7-43		

Table No.2 Percentage (%) improvement in different components related to professionalism.

Component of professionalism	% improvement
Professionalism and its attributes	94.36 %
Hidden curriculum & patients' confidentiality	86.31 %
Students' role regarding unprofessionalism behaviour	76.65 %
Attributes of good professional behaviour of doctors and its role in developing professionalism	66.11 %
Overall improvement (%)	82.07 %

Table 1 show a remarkable increase of the mean score from 5.09 to 29.66. The P-value is also highly significant at < 0.0001 which further confirms the fact that the students have gained quite appreciably. Table 2

shows improvement in different components related to professionalism with an overall improvement of 82.07%.

DISCUSSION

The Competency Based Medical Education (CBME) pattern tells itself as how entrustable professional activities can serve as a useful learning & assessment tool.^[11]

The present study was conducted to test the knowledge of the participants that took part in this study 'Introduction of professionalism in medical undergraduates.' A pre-test was conducted at the beginning of the project to assess the baseline knowledge of the participating students. Next, they were sensitized through a PowerPoint Presentations and lectures on professionalism. Then they were made to enact the art of professionalism through role play. Various aspects of professionalism were taught including definition and attributes of professionalism, hidden curriculum & patients' confidentiality, Students role regarding unprofessionalism behaviour, attributes of good professional behaviour of doctors and its role in developing professionalism. Finally, a post-test was taken to assess the increase in knowledge.

Comparison of the pre-test and post-test scores showed a remarkable increase of the mean score from 5.09 to 29.66, suggesting that if the study is applied, we can still expect a huge gain in knowledge after training the undergraduates using lectures and role play. The P-value too was highly significant at <0.0001 . (Table 1)

Percentage improvement in different components related to professionalism were Observed. Out of the total students that participated 94.36 % showed improvement regarding the knowledge about Professionalism and its attributes which included definition and its attributes like altruism, excellence, honour, duty, responsibility, respect and accountability. Hidden curriculum & patients' confidentiality showed improvement of 86.31 %. Improvement about knowledge regarding Students role in unprofessionalism behaviour was 76.65 %. Attributes of good professional behaviour of doctors and its role in developing

professionalism gain was 66.11 %. Overall improvement regarding the different aspects of professionalism was 82.07%. (Table 2)

Compilation of the overall response to the questionnaire clearly showed that most of them gained knowledge of professionalism and is very important and should be incorporated and properly taught in the undergraduate curriculum. Professionalism is a set of values and behaviours that reinforce the social contraction between patient and physicians.^[12] Weak professionalism in physicians is a fundamental cause of medical malpractice and mortality and morbidity in patients.^[13]

Medical professionalism is a complex phenomenon. A professionalism curriculum should be formulated based on the institutional environment in which it is taught. There is an increasing awareness amongst faculty to incorporate professionalism training into the medical curriculum. Role modelling and experiential learning are effective teaching tools. ^[14] Assessment strategy should employ educational portfolios with effective feedback and an opportunity for continuous improvement.^[15] Medical curricula for undergraduate students are neither sophisticated nor comprehensive in teaching medical professionalism.^[16] The effectiveness of the changes made in the knowledge of medical professionals and students can be used for developing a proper curriculum.^[17]

Despite the importance of the issue, the medical professionals working in the national healthcare system appear to have an unfavourable theoretical knowledge about medical professionalism; although this unfavourable status does not indicate that their practices are unethical, it should be noted that one of the prerequisites for possessing a high level of medical professionalism and for establishing a proper relationship between the medical community and the patients is to have a proper knowledge of this essential concept. Improving behaviours and performances in medical professions requires adequate

training on the concepts of medical professionalism. Therefore, an education on professionalism is essential at the undergraduate level. Further studies are needed to assess the differences in attitudes among medical students in different study years.

CONCLUSION

Improving behaviours and performances in medical professions requires adequate training on the concepts of medical professionalism and consequently the assessment of the levels of professionalism achieved in medical professionals. The critical role of education and mentorship in inculcating right values from the start of medical training is emphasized. The students' training will enable them to observe and imbibe appropriate attitude and behaviour. If taught from the very beginning the students can practice what they have learnt during the formal training sessions in professionalism.

Declaration by Authors

Ethical Approval: Approved

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