

# Teaching and Learning Medical Professionalism: an Input from Experienced Faculty and Young Graduates in a Tertiary Care Institute

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## ABSTRACT

**Introduction:** Medical professionalism is of paramount importance especially in today's day and age. This study gives an insight on the preferred methods of teaching and learning professionalism among the young MBBS graduates and experienced faculty in a medical teaching institute.

**Material and methods:** This was an observational study conducted in the Department of Obstetrics and Gynaecology from January 2019 to January 2020. It included 60 interns and 60 faculty members, who were interviewed for nine different methods of teaching and learning professionalism: (a) professional role model; (b) early clinical exposure; (c) recruiting faculty who had comprehensive training in medical education before joining the medical institute; (d) teaching and assessing communication skills to each student; (e) conducting seminar, didactic lecture and small group discussion; (f) reflective practice; (g) mentorship; (h) faculty development programme; (i) hidden curriculum. Each participant's response was analyzed using Wilcoxon rank-sum test on SPSS software version 22.

**Results:** Interns preferred early clinical exposure, recruiting faculty with prior comprehensive training in medical education and reflective practice as preferred methods, while faculty members preferred teaching and assessing communication skills for every student, early clinical exposure and mentorship.

**Conclusion:** Early clinical exposure, teaching and assessing communication skills, mentorship and reflective practice are the preferred methods of teaching and learning medical professionalism.

**Keywords:** medical professionalism, medical education, teaching methods, learning methods, young doctors, faculty members.

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## INTRODUCTION

“Medical professionalism refers to a set of values, behaviours and relationships that supports the trust the public holds in doctors” (1). Medical professionalism has gained interest in the recent years, mainly because of failures in the practice of medicine, which are often related to unprofessional behaviour (2). Professional values and behaviours have been traditionally acquired from role models (3).

In India, medical colleges have been successful in creating doctors competent in curing disease but failed to provide comprehensive health care, including preventive, promotive, curative and rehabilitative services to the people who approach for health care needs. Medical education in India has now become commercialised, with competitive pricing for various basic and specialized certificate courses (4, 5).

It has been noted that the behaviour of a medical professional reflects his/her ethical behaviour as a medical student. The conduct of the residents was strongly associated with their prior unprofessional behaviour in medical school (5). During medical training, exposure to unprofessional and unethical behaviour results in diminishing empathy experienced by medical students. Role models play a vital role in promoting professionalism, but this informal process is no more regarded as adequate considering the current heterogeneity of medical students, who are admitted to medical schools with different social, cultural, and socioeconomic backgrounds (6). Professionalism, therefore, must be explicitly taught in the formal curriculum and it has already been incorporated into many medical education systems for both undergraduates and postgraduates (7, 8).

Teaching professionalism is challenging for faculty members (8) because of two main concerns. The first concern is the context-specific nature of professionalism as it is an advantage given by the society in return of particular expectations from the medical professionals (9). And thus, professionalism is sensitive to specific culture and there is no multipurpose curriculum on professionalism that fits all (10). The domains of professionalism cannot be taught as abstract concepts (11). Unfortunately, faculty members

are not competent in teaching professionalism as a content area and they are unable to express the attributes and behaviours in the curriculum (12). Also, a literature gap exists on faculty development for teaching professionalism and the small number of scholarly reports that are available in the discipline have been written from a Western perspective (12).

The most essential elements of affective domain such as empathy, professionalism, altruism, communication skills, ethics and humanities are not covered in the syllabus (13). Considering the current day's incidences such as assault on doctors, professional negligence, and violence in clinical setting emphasizes the need to inculcate them in the current system of medical education.

There is no recommended method how professionalism can be taught and learned. This observational study was thus carried out in our department to seek inputs from young graduates i.e., the interns and experienced faculty of our institute regarding the preferred methods by which professionalism can be taught and learnt. □

## MATERIAL AND METHODS

This was an observational cross-sectional study conducted in the Department of Obstetrics and Gynaecology from January 2020 to January 2021. The authors had gone through the literature thoroughly and found nine possible methods of teaching and learning professionalism, which included: (a) professional role model or PRM; (b) early clinical exposure or ECE; (c) recruiting faculty who had compressive training in medical education before joining medical institute or RF; (d) teaching and assessing communication skill to each student or CSK; (e) conducting seminars, didactic lectures and small group discussion on professionalism; (f) reflection practice on teaching learning professionalism or RP; (g) mentorship or MS; (h) faculty development programme on professionalism or FDP; (i) old practice of hidden curriculum or HC.

These methodologies were peer reviewed by senior faculty members of the medical education unit of our institute. The study population included 60 interns, who were about to finish their MBBS internship, and 60 faculty members of our institute. Convenience sampling was adopted for

interns – as we have MBBS batch with only 50 students – and included students from other colleges who were doing internship in our college. Faculty members were approached for the study and those willing to participate were selected randomly. Informed consent was obtained and participants were assured of confidentiality. A questionnaire format was prepared, which was validated by senior faculty members of the medical education unit of our institute. Questionnaires had nine choices of teaching and learning methods, as mentioned above, and preferences were ranked in Likert scale as excellent, very good, good, fair, worse and worst.

Each participant was approached via email about individual choices of methodology of teaching and learning professionalism. Questionnaires were provided and response collected from each participant through email due to the prevailing Covid scenario. All collected responses were tabulated in Excel format and statistical evaluation of preferences expressed by both the interns and faculty group was done using Wilcoxon rank-sum test on Statistical Package for the Social Sciences (SPSS) software version 22. □

## RESULTS

The results of the study are summarized in Table 1.

### Observation

In the present study, interns preferred early clinical exposure (6), recruiting faculty with prior comprehensive training in medical education (6) and reflective practice (6) in comparison to other teaching and learning methods, followed by primary role model (2), mentorship (1), seminar (1), communication skills (1), and hidden curriculum (1). Faculty members preferred communication skills (5), mentorship (5) and early clinical exposure (5), followed first by seminar (4) and then by faculty development programme (1). None of the interns preferred faculty development programme. No faculty preferred reflective practice, hidden curriculum, recruitment of faculty with comprehensive training in medical education or primary role model teaching and learning methods (numbering was done calculating the total number of times the said method was preferred over other methods and has been derived from columns 6 and 12 of the table). □

## DISCUSSION

It has been expected since long that professionals can automatically start teaching the very next day after successfully completing their graduation and postgraduate training from medical schools. However, with advances in the education system with newer teaching learning methods which are more student-centred, newer assessment methods and emphasis on professionalism, present day educators need to have a variety of tools for teaching skills and clinical expertise (14). Even most medical schools recruited faculty members considering their content knowledge and clinical skills rather than their educational skills, and later faculty members were sometimes criticized for their shortcomings in teaching performances (15). In our study, interns had specifically preferred that faculty recruited should be trained teachers with a comprehensive training in medical education before joining as academic physician. However, faculty members did not prefer it at all. Ongoing continuous professional learning rather than one-time development training was proposed by a number of educators in higher education (16, 17). It was noted that professionals were learning from a variety of training activities, including formal programs, interactions with colleagues and learning on the job (18); this might explain why faculty members did not prefer previous comprehensive knowledge in medical education as recruitment criteria.

Early clinical exposure is considered the beginning of the course of professional socialization and the development of mentoring relationship, which is viewed as a way to provide contexts for basic science and its relevance to medical practice (19, 20). Early clinical exposure makes students' learning more real and relevant and also influences their career choices. Students' early exposure to real clinical scenario may promote socialisation and strengthen their affective and cognitive learning (21). Early clinical exposure facilitates students' transition to the clinical phase, helps them develop professional identity, increases their motivation, makes them aware of the application of basic sciences and boosts their confidence to handle their patients' problems in practice (22, 23). In the present study, early clinical exposure was very much preferred by both the interns and faculty members.

**TABLE 1.** Comparison of preferred teaching-learning methods among interns and faculty members (PRM: professional role model; ECE: early clinical exposure; RF: recruiting faculty who had compressive training in medical education before joining medical institute; CSK: communication skill; RP: reflection practice on teaching learning professionalism; MS: mentorship; FDP: faculty development programme on professionalism; HC: old practice of hidden curriculum)

Sl. No.	Description for interns Response against methods of teaching professionalism	N	Mean rank	Z-value	Asymp sig. (2-tailed) (p-value)	Description for faculty	N	Mean rank	Z-value	P-value
1	ECE/PRM	8	19.50	-2.130 (based on negative ranks)	0.033	-ve ranks	20	17.53	-2.473 (based on negative ranks)	0.013
		24	15.50		ECE is preferred	+rank	28	29.48		ECE is preferred
		28				Ties	12			
		60				Total	60			
2	MS/PRM	32	23.50	-1.724 (based on positive ranks)	0.085	-ve ranks	15	26.10	-2.232 (based on negative ranks)	0.026
		16	26.50		Not significant (NS)	+rank	34	24.51		MS is preferred
		12				Ties	11			
		60				Total	60			
3	SEMINAR/PRM	28	28.79	-2.298 (based on positive ranks)	0.022	-ve ranks	21	28.36	-1.282 (based on negative rank)	0.200
		20	18.50		PRM is preferred	+rank	33	26.95		NS
		12				Ties	6			
		60				Total	60			
4	RP/PRM	16	17.50	-2.564 (based on negative ranks)	0.010	-ve ranks	20	21.75	-1.624 (based on positive ranks)	0.104
		28	25.36		RP is preferred	+rank	16	14.44		NS
		16				Ties	24			
		60				Total	60			
5	CSK/PRM	28	24.50	-1.033 (based on positive ranks)	0.302	-ve ranks	13	25.54	-2.831 (based on negative ranks)	0.005
		20	24.50		NS	+rank	36	24.81		CSK is preferred
		12				Ties	11			
		60				Total	60			
6	HC/PRM	28	22.50	-1.617 (based on positive ranks)	0.106	-ve ranks	23	21.57	-0.287 (based on positive ranks)	0.774
		16	22.50		NS	+rank	20	22.50		NS
		16				Ties	17			
		60				Total	60			
7	FDP/PRM	32	19.25	-4.620 (based on positive ranks)	0.001	-ve ranks	15	23.53	-0.023 (based on positive ranks)	0.982
		4	12.50		PRM is preferred	+rank	22	15.91		NS
		24				Ties	23			
		60				Total	60			
8	RF/PRM	12	13.83	-3.334 (based on negative ranks)	0.001	-ve ranks	17	13.88	-0.794 (based on positive ranks)	0.427
		28	23.36		RF is preferred	+rank	11	15.45		NS
		20				Ties	32			
		60				Total	60			
9	MS/ECE	28	15.07	-2.998 (based on positive ranks)	0.003	-ve ranks	12	12.08	-0.828 (based on negative ranks)	0.407
		4	26.50		ECE is preferred	+rank	14	14.71		NS
		28				Ties	34			
		60				Total	60			
10	SEMINAR/ECE	32	25.50	-3.879 (based on positive ranks)	0.001	-ve ranks	19	14.53	-0.941 (based on positive ranks)	0.347
		12	14.50		ECE is preferred	+rank	11	17.18		NS
		16				Ties	30			
		60				Total	60			

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11	RP/ECE	-ve ranks +rank Ties Total	24 28 8 60	22.17 30.21	-1.453 (based on negative ranks)	0.146 NS	-ve ranks +rank Ties Total	29 9 22 60	23.10 7.89	-4.403 (based on positive ranks)	0.001 ECE is preferred
12	CSK/ECE	-ve rank +ve rank Ties Total	28 16 16 60	26.50 15.50	-2.950 (based on positive ranks)	0.003 ECE is preferred	-ve ranks +rank Ties Total	16 24 20 60	22.56 19.13	-0.676 (based on negative ranks)	0.499 NS
13	HC/ECE	-ve rank +ve rank Ties Total	40 12 8 60	24.10 34.50	-2.553 (based on positive ranks)	0.011 ECE is preferred	-ve ranks +rank Ties Total	33 11 16 60	24.83 15.50	-3.945 (based on positive ranks)	0.001 ECE is preferred
14	FDP/ECE	-ve ranks +ve rank Ties Total	40 4 16 60	22.30 24.50	-4.718 (based on positive ranks)	ECE is preferred	-ve ranks +rank Ties Total	25 10 25 60	19.80 13.50	-3.007 (based on positive ranks)	0.003 ECE is preferred
15	RF/ECE	-ve rank +rank Ties Total	16 24 20 60	18.00 22.17	-1.672 (based on negative ranks)	0.094 NS	-ve ranks +rank Ties Total	31 14 15 60	26.90 14.36	-3.645 (based on positive ranks)	0.001 ECE is preferred
16	SEMINAR/MS	-ve rank +rank Ties Total	24 16 20 60	17.83 24.50	-0.246 (based on positive ranks)	0.806 NS	-ve ranks +rank Ties Total	24 8 28 60	15.00 21.00	-1.868 (based on positive ranks)	0.062 NS
17	RP/MS	-ve rank +rank Ties Total	16 32 12 60	16.50 28.50	-3.360 (based on negative ranks)	0.001 RP is preferred	-ve ranks +rank Ties Total	33 6 21 60	21.71 10.58	-4.628 (based on positive ranks)	0.001 MS is preferred
18	CSK/MS	-ve rank +rank Ties Total	20 24 16 60	22.50 22.50	-0.538 (based on negative ranks)	0.591 NS	-ve ranks +rank Ties Total	9 13 38 60	13.00 10.46	-0.335 (based on negative ranks)	0.738 NS
19	HC/MS	-ve rank +ve rank Ties Total	20 12 28 60	12.90 22.50	-0.116 (based on negative ranks)	0.907 NS	-ve ranks +rank Ties Total	33 9 18 60	23.55 14.00	-4.214 (based on positive ranks)	0.001 MS is preferred
20	FDP/MS	-ve rank +rank Ties Total	20 12 28 60	19.70 11.17	-2.466 (based on positive ranks)	0.014 MS is preferred	-ve ranks +rank Ties Total	26 5 29 60	16.60 12.90	-3.670 (based on positive ranks)	0.001 MS is preferable

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21	RF/MS	-ve rank +rank Ties Total	12 40 8 60	25.17 26.90	-3.586 (based on negative ranks)	0.001 RF is preferred	-ve ranks +rank Ties Total	34 14 12 60	27.24 17.86	-3.515 (based on positive ranks)	0.001 MS is preferred
22	RP/SEMINAR	-ve rank +rank Ties Total	16 40 4 60	20.00 31.90	-3.973 (based on negative ranks)	0.001 RP is preferred	-ve ranks +rank Ties Total	28 13 19 60	25.64 11.00	-3.801 (based on positive ranks)	0.001 Seminar is preferred
23	CSK/SEMINAR	-ve rank +rank Ties Total	20 24 16 60	19.70 24.83	-1.206 (based on negative ranks)	0.228 NS	-ve ranks +rank Ties Total	13 25 22 60	19.69 19.40	-1.699 (based on negative ranks)	0.089 NS
24	HC/SEMINAR	-ve ranks +rank Ties Total	24 16 20 60	13.83 30.50	-1.069 (based on negative ranks)	0.258 NS	-ve ranks +rank Ties Total	31.94 23.18	31.94 23.18	-2.414 (based on positive ranks)	0.016 Seminar is preferred
25	FDP/SEMINAR	-ve rank +rank Ties Total	20 16 24 60	22.90 13.00	-1.996 (based on positive ranks)	0.046 Seminar is preferred	-ve ranks +rank Ties Total	20 13 27 60	20.28 11.96	-2.306 (based on positive ranks)	0.021 Seminar is preferred
26	RF/SEMINAR	-ve ranks +rank Ties Total	8 36 16 60	8.50 25.61	-5.054 (based on negative ranks)	0.001 RF is preferred	-ve ranks +rank Ties Total	29 15 16 60	23.79 20.00	-2.320 (based on positive ranks)	0.020 Seminar is preferred
27	CSK/RP	-ve rank +rank Ties Total	36 12 12 60	25.61 21.17	-3.479 (based on positive ranks)	0.001 RP is preferred	-ve ranks +rank Ties Total	2 41 17 60	12.50 22.46	-5.542 (based on negative ranks)	0.001 CSK is preferred
28	HC/RP	-ve rank +rank Ties Total	28 12 20 60	24.79 10.50	-3.890 (based on positive ranks)	0.001 RP is preferred	-ve ranks +rank Ties Total	14 25 21 60	21.64 19.08	-1.252 (based on negative ranks)	0.210 NS
29	FDP/RP	-ve ranks +rank Ties Total	40 16 4 60	34.90 12.50	-4.955 (based on positive ranks)	0.001 RP is preferred	-ve ranks +rank Ties Total	13 22 25 60	12.50 21.25	-2.603 (based on negative ranks)	0.009 FDP is preferred
30	RF/RP	-ve rank +rank Ties Total	20 20 20 60	18.90 22.10	-0.437 (based on negative ranks)	0.662 NS	-ve ranks +rank Ties Total	14 17 29 60	14.43 17.29	-0.923 (based on negative ranks)	0.356 NS

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31	HC/CSK	-ve rank +rank Ties Total	24 20 16 60	23.83 20.90	-0.920 (based on positive ranks)	0.358 NS	-ve ranks +rank Ties Total	38 7 15 60	24.57 14.50	-4.851 (based on positive ranks)	0.001 CSK is preferred
32	FDP/CSK	-ve ranks +rank Ties Total	36 12 12 60	25.17 22.50	-3.374 (based on positive ranks)	0.001 CSK is preferred	-ve ranks +rank Ties Total	29 5 26 60	18.21 13.40	-4.054 (based on positive ranks)	0.001 CSK is preferred
33	RF/CSK	-ve ranks +ve rank Ties Total	16 36 8 60	16.50 30.94	-3.993 (based on negative ranks)	0.001 RF is preferred	-ve ranks +rank Ties Total	34 11 15 60	25.29 15.91	-3.919 (based on positive ranks)	0.001 CSK is preferred
34	FDP/HC	-ve rank +rank Ties Total	20 12 28 60	21.30 8.50	-3.123 (based on positive ranks)	0.002 HC is preferred	-ve rank +rank Ties Total	34 11 15 60	25.29 15.91	-3.919 (based on negative ranks)	0.001 FDP is preferred
35	RF/HC	-ve rank +rank Ties Total	16 32 12 60	12.00 30.75	-4.107 (based on negative ranks)	0.001 RF is preferred	-ve ranks +rank Ties Total	25 24 11 60	21.40 28.75	-0.788 (based on negative ranks)	0.431 NS
36	RF/FDP	-ve rank +rank Ties Total	4 44 12 60	10.50 25.77	-5.704 (based on negative ranks)	0.001 RF is preferred	-ve ranks +rank Ties Total	19 24 17 60	27.89 17.33	-0.707 (based on positive ranks)	0.480 NS

Communication skill is an integral part of good medical practice besides knowledge, skill,

competence and ethics (24). There are certain misconceptions about teaching communication skills to medical students e.g., communication skills are not considered teachable, or the skills acquired during training period tends to decline over time (25). Training in communication skills should be an essential component of undergraduate training and represents an integral part of teaching professionalism. It is a part of the MBBS curriculum in our institute (teaching and accessing KALAMAZO communication skills), so the interns were already taught, and their communication skills were assessed in MBBS. Yet, they did not choose this method. But faculty members very much favoured it.

In mentorship, faculty mentors were introduced to assist and counsel the students as well as to serve as role models. Assessment was performed through the presentation of a portfolio and self, peer, and mentor evaluation (26). Ramani *et al* discussed the role of mentoring in the cultivation of medical student professional development (27). Mentoring relationships needs to balance “agree and disagree” and it was noted that if mentors were very much supportive without disagreeing mentees, the mentees did not grow professionally; while disagreeing without supporting causes hindrance to the mentees’ development of professionalism. However, they accept the shortcomings that faculty members are often not trained to serve as effective educators besides the other core responsibilities. In our study, faculty members preferred mentorship but interns preferred it least. Mentorship programme is in place in our institute but it might not have been helpful for the students.

Didactic teaching is an essential component of teaching professionalism and should provide both the delivery of information and opportunity to discuss pertinent issues. Less conventional didactic teaching methods may prove beneficial. Innovative educational techniques may include entities such as the use of multimedia presentations, role-playing, drama, panel discussions, and other creative educational techniques (28). Multimedia educational presentations have demonstrated superior attention, interaction, test scores, and retention of information in a variety of settings (29-31). Multimedia educational approaches have proved their effectiveness in such settings as teaching clinical skills, procedural skills, interpersonal skills, distance learning

and public education. However, neither interns nor faculty members preferred it in our study, which could be due to their lack of awareness about this type of teaching professionalism.

Reflective practice refers to the process of self-assessment and critical evaluation by means of which one deeply analyses an event with an aim to learn from experiences, and ultimately makes change in the perception or behaviour. Schon introduced the concept of reflection-in-action and reflection on-action (32). Reflection-in-action can be described as the ability of a practitioner to 'think on their feet', which is otherwise known as 'felt-knowing'. Reflective practice focuses on lifelong learning of the developing practitioner and development of professional identity through reflection. In our study, reflective practice was preferred only by interns, not also by faculty members.

Regarding the faculty development program, teaching professionalism, though possible, is challenging because medical teachers are not conversant in teaching this content area. Faculty members are not competent in teaching professionalism and they are unable to articulate the attributes and behaviours within their courses (14). Faculty development is fundamental to empower educators to teach professionalism and promote institutional agreement on definitions and characteristics of professionalism (11, 33). In our study, interns did not prefer faculty development programme at all. In Indian scenario, very less programmes like this one are being conducted.

Medical mentors as role models might be grouped within the following domains: individual characteristics, clinical skills and competence, teaching skills and professionalism. Consequently, teachers' consciousness and self-awareness in education, personality, patient care and other behaviours are considered the cornerstones of a good role model (34). Many medical students made their career choices by the influence of role models at the time of graduation (28). In our study, faculty members did not prefer the professional role model as a method of teaching professionalism, while interns preferred it.

Hidden curriculum was the commonly adopted method of teaching professionalism to medical students. It has many masks, resting on the faces of different social actors, whose interactions with students commonly go unnoticed by

curricular designers and course coordinators (35-38). In our study, neither the faculty members nor interns preferred hidden curriculum because there was no proper teaching design and the time given to students in teaching was not adequate.

The weakness of our study was the small sample size and convenience sampling as we had only 50 MBBS interns.

### Summary

Interns in the present study ranked early clinical exposure, recruiting faculty after comprehensive medical education training and reflective practice as preferred methods for teaching and learning professionalism. In India, recruiting faculty members with prior comprehensive knowledge is a governmental decision, which makes it difficult to comment on this policy. Faculty members preferred teaching and accessing communication skills, mentorship and early clinical exposure, followed by conducting seminar to teach professionalism. In our study, we also preferred the faculty development programme, which was considered by us as an integral part of teaching and learning professionalism; therefore, we suggest that it should be introduced in all institutions and mentorship should be practiced in a robust way, so that student would like it and benefit from it. □

### CONCLUSION

In Indian scenario in view of the increased litigation, teaching and learning professionalism is necessary to meet the community expectations. Early clinical exposure, recruiting faculty members with previous comprehensive knowledge in medical education and reflective practice were the preferred methods of teaching and learning professionalism by young doctors. Besides early clinical exposure, teaching and assessing communication skill, sensitising faculty with faculty development programme and robust mentorship were preferred by experienced faculty members. □

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