

RESEARCH ARTICLE

An exploration of the hidden curriculum in undergraduate medical training: students' perspectives (2016-2017)

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Abstract

Background: The hidden curriculum is known to influence the doctor-in-formation and thereby impact patient care. Hence, it was worthwhile to explore the dimensions and influences of the hidden curriculum in a medical college through student perceptions.

Methods: Ten focus group discussions were conducted with 83 undergraduate medical student volunteers, across five academic years, to explore the hidden curriculum through experiences, observations, and influences of the medical training environment as perceived by students.

Results: Some learnings emerged regarding the importance of role models in developing attitudes; concerns about the emphasis of knowledge and exams over skills and attitudes; values conveyed through institutional policy and traditions; learnings from patients; influence of peers, senior students and the concept of an ideal doctor.

Conclusion: The hidden curriculum provides informal learning that positively and negatively influences the doctor-in-formation. This awareness can help to deliver professional values, driving educators to introspect and modify behaviour, so that positive informal learning could complement the goals of the formal curriculum.

Keywords: hidden curriculum, role models, ideal doctor, attitude, ethical, informal learning, medical education, patients

Introduction

The objective of undergraduate medical education is to create doctors who are not only knowledgeable and skilled, but also ethical, responsive, and accountable to patients and the community [1,2]. Medical training takes place in a multidimensional learning environment that is impacted by at least two kinds of influences — the formal and hidden curriculum. The formal curriculum is “the stated, intended and formally endorsed curriculum,” while the hidden curriculum incorporates “the set of influences that function at the level of organisational structure and culture” [3]. These are informal learnings of values and practices that are imbibed through observation and experiences by students. These learnings have an impact on their behaviour and actions and hence affect the doctor-in-formation and thereby influence patient care. The hidden curriculum influences professional attitudes, conduct and patient care and includes learning from peer-to-

peer interaction, student-faculty interactions, institutional policies and mission of the college, culture and traditions, resource and time allocation, awards and recognition [4].

The need for a value-laden hidden curriculum and for positive role models was found to be at the centre of effective medical ethics education [5-10]. On the other hand, some studies also show that learnings from the hidden curriculum included the adoption of a “ritualised” professional identity, emotional neutralisation, change of ethical integrity, acceptance of hierarchy, less formal aspects of “good doctoring” [4] and reduced idealism [5,7,11]. A study on the hidden curriculum emphasised its effect on student development, requiring self-reflection by students [12].

The nature and impact of the hidden curriculum have remained largely unexplored in India. The accreditation process for medical schools focuses primarily on infrastructure and human resources and less on professional development and attitude [13]. Further, in view of the corruption that prevails in healthcare in India [14,15], an exploration of the hidden curriculum could reveal possible links between these unintended influences and unethical practices.

Our objective was to explore the dimensions of the hidden curriculum in a medical college as perceived by medical students, across the years of medical training and to highlight its potential influence on the formation of a doctor.

Methodology

This study was conducted in the year 2016-17. During this time, the Medical Council of India (currently, the National Medical Commission) initiated an AETCOM (Attitude, Ethics, and Communication Skills) training module [16], which was in its pilot phase to fulfil its objective of creating ethical and responsive medical graduates [1,2]. The format of the Competency Based Medical Education (CBME) system had not yet been formally initiated [2]. A qualitative research approach was ideally suited to this study as the hidden curriculum needed to be explored through the experiences of students, probing their thoughts and insights that may not have been expressed before. This approach was guided by the Grounded Theory paradigm [17,18], using focus groups of medical students.

Table 1. Socio demographics of the participants in the Focus Group Discussions

	Year 1 (group 9, 10)	Year 2 (group 5, 6)	Year 3 (group 1,2)	Year 4 (group 3, 4)	Internship (group 7,8)	Total
Median age	19	20	22	22	23	
Gender:						
Boys	8	10	8	6	7	39
Girls	11	7	8	11	7	44
State:						
Karnataka*	9	9	9	13	9	49
Others	10	8	7	4	5	34
Hostelite/day scholar	14/5	10/7	11/5	13/4	11/3	59/24
Total (N)	19	17	16	17	14	83
*State where the medical college is located						

Study setting and participant selection

The study was conducted in a private medical college located in a city in South India. Medical ethics has been taught to the students throughout their course [19], even before it was mandated by the university [20]. In line with the mission of the institution, students undertake to serve in underprivileged areas of the country for two years after graduation.

Recruitment

At the time of the study, none of the study investigators were involved in directly teaching or assessing the students, thus limiting the possibility of coercion of students to participate or to influence their views. However, the investigators were known to some extent to the students, the first author being their teacher of physiology in year 1, the last author, a social scientist, having taken environment science-planetary health classes in term 1 and the 2nd author, a bioethicist, being an adjunct faculty member in the research institute affiliated to the medical college, having had no direct interaction with the students.

The students of each of the five academic years (First Year to Internship) were approached as a group and enrolled on a voluntary basis by the first author. Sampling was purposive to reflect a balance of girls and boys, hostelites and day scholars, those domiciled in the state and from outside the state, as was the profile of students in the college. Two focus groups were planned for each academic year, with the possibility of conducting more. The analysis began with the initial focus group discussions (FGDs) and followed by an iterative process and the rigor of constant comparison in coding. This helped to see patterns, ground the analysis, and track saturation, ie, see the repetition of data with no new codes or categories emerging. Data saturation was reached by the tenth group. No new codes emerged from the tenth FGD which indicated data saturation. Each group averaged eight participants. The

socio-demographic profile of the participants is provided in Table 1.

Data collection

Data collection was aided by an FGD Guide, designed using review of literature for the different focus areas of the FGD guide [5]. The knowledge and experience of the investigators as medical teacher, social scientist, clinician and bioethicist also added value in developing the guide. It covered three broad areas in a conversational, experience sharing manner — 1) choice of medical profession, choice of college, and understanding of an “ideal” doctor; 2) exploration of the hidden curriculum through lived experiences during medical training; and 3) the perceived impact of the hidden curriculum. The process followed the funnelling technique where opening questions were broad and then narrowed down with specific probes based on the participants’ discussion during FGD. Ranking of a set of desirable attributes in a doctor was incorporated within the FGD, which served as a trigger for further discussion. Every FGD was conducted by two of the three authors in random order and lasted from 1.5 hours. One of them conducted the FGD while the other made notes. The FGDs were audio recorded after taking informed consent and providing assurance of confidentiality.

A pilot FGD was conducted with a group of five participants. This data was not used in the analysis of this study but helped to focus the FGD Guide and develop the analytical framework. FGDs were conducted between August 2016 and January 2017.

Data analysis

The audio recording was transcribed by an external agency and the transcripts checked for errors. Analysis was done using the inductive method of constant comparison based on the principles of Grounded Theory [17]. It was an iterative process that began soon after the first FGD. A

coding tree was prepared using the NVIVO software with broad conceptual codes and sub codes, which also included *a priori* themes derived from literature and the FGD guide. Data analysis was conducted by the first and second authors independently. The authors attempted to be as true to the voices of the students as possible and went through multiple rounds of coding, being led by the data and following the process of constant comparison as dictated by the principles of Grounded Theory. Consensus of themes was arrived at by mutual discussion among the three authors. The emergence of positive and negative influences of the hidden curriculum within specific themes was so stark that it grounded the analytical framework in the manner as described below.

Themes have emerged across the years of study and have been substantiated with verbatim quotes or key phrases with the participant's year of study (Y) written in brackets, not revealing the individual's identity.

Ethics approval

The study was approved by the Institutional Ethics Committee (IEC) of St John's National Medical College and Hospital (IEC Ref No.121/2016). Written informed consent was obtained; anonymity and confidentiality were maintained. Participants were not paid but received refreshments during the FGD.

Results

The results have been presented under three broad areas:

1. Factors that influenced choice of medical profession and college

Students offered different reasons for choosing the medical profession and the institution, providing insights into their priorities and the factors affecting their choice. While the influence of parents, family and "interest in biology" were the most common reasons for choosing medicine as a career, other reasons mentioned were an innate desire to "help others," the influence of a past illness and the glamour of the "doctor" status. Students selected the college based on its location and national ranking. The description of factors is given in Table 2.

2. Exploration of the hidden curriculum

The unpacking of the hidden curriculum revealed both its positive and negative sides. Five main themes / elements emerged which are discussed below [Flowchart 1 (a), available online only].

2.1 Role modelling

This emerged as a recurrent theme of the hidden curriculum across the five years of training. Especially in the clinical years, doctors served as role models for students, some positive and some negative.

Table 2. Reasons influencing choice of medical profession and choice of institution for medical training

	Reasons
Choice of medical profession	- Family: - one or both parents being doctors - influence of a doctor in the family - having no doctors in the family - decision of their family members
	- Helping society: - wish to contribute to the society - intention to help others
	- Social status: - the 'social status' that they would attain on becoming doctors
	- Subject priority: - liked biology as a subject - did not like Mathematics and wanted to avoid that subject
	- Other reasons: - influenced by role model doctors during childhood - past-experience of health-related life changing incidents
	- No actual reasons: - took up medicine as they got the seat
Choice of Medical College	- Unique features of the institution: <i>academically very good, one of the best medical colleges in the country, lots of extracurricular activities (sports and cultural activities), heard good opinion about the college</i> - Family influence: <i>childhood dream - children of faculty/ alumni of the same institution</i> - Location: <i>college away from home, college within the city so that they could stay at home</i> - Default decision: <i>not a matter of choice, got the seat</i>

2.1.1 Positive role models and influences

Students expressed the resolve to imbibe and emulate the qualities of the doctors they admired. This included verbal communication, behaviour, body language, dress sense and conduct in professional life. It also influenced the student's behaviour with patients, colleagues, peers, and paramedical staff. Positive qualities in role models were described in relation to interaction with patients, colleagues, and students.

Doctor-patient interactions: Students across the years admired faculty qualities like empathy, compassion, good

communication (breaking bad news), confidence, competence, approachability, helpfulness, and being knowledgeable about their patients. In addition, the second-year participants admired subtle professional interventions in the form of possible reduction of unnecessary investigations and consultation fees for poor patients.

"I have noticed a surgeon at one point, he said, don't put that [suture material] there, it will get billed to that (poor) patient unnecessarily...." (2Y)

The third-year participants specifically noticed the art of making the patients comfortable and subjecting them to minimal discomfort during clinical examination. The fourth-year participants and Interns admired doctors who attended emergency calls even during vacation time.

Interactions with colleagues and students: Students admired doctors who were polite and dignified, yet friendly with colleagues and students (2Y, 3Y). They admired the fine balance between being *respectful* and *authoritative* at the workplace. Students noticed the dual nature of the doctor — being compassionate with the patient but tough and demanding with students, a balance they desired to emulate (2Y, Interns Y). A female surgeon who prioritised student teaching even over her family duties received a special mention (4Y). There was a mixed response on whether seniority affected role modelling.

"With senior doctors, there is no status when it comes to work. There was a day when there were 13 discharge sheets to be written. The consultant actually sat and wrote three of them... so that the interns would be able to sleep that night." (Intern Y)

"I really admired a junior doctor who had the patience to talk and convince the relatives of an old patient regarding his treatment." (3Y)

Role models outside the institution: Apart from internal faculty, students had long-lasting positive memories of doctor role models in the family and during their childhood.

2.1.2 Negative role models and influences

Students shared negative encounters and inconsistencies between what was taught in the classroom and what they saw in practice. The following themes emerged:

Unpleasant behaviour: Students witnessed the occasional unpleasant conduct of faculty with patients. This reflected an inconsistency between what was taught as the expected interaction with patients and what was practised by the faculty. A few of the faculty appeared "too busy" or felt "too superior" to inform or apologise to students if they came to class late.

"I have seen doctors speak loudly to patients, to come in regular queue or whatever, but they could have been more gentle" (4Y)

"It might influence us in future, we might think that it is ok to not be punctual, to keep students waiting ..." (3Y)

Emphasis on protocol: Students felt that while emphasis on protocol is necessary, at times it hindered patients' need for treatment.

"If a patient comes without an attender they have to register.... Every patient can't have someone." (3Y)

Students tended to offer explanations for the unhelpful behaviour of teachers. They felt there could be extenuating circumstances that caused such behaviour, including a heavy burden of work, limited time and resources, long hours, and patient demands.

2.2 Imbalance in emphasis on knowledge-skill-attitude

Students felt that there was an over-emphasis on acquiring knowledge as against developing skills and positive attitudes. Across the years they noted a greater focus on theory and exams, and felt they were ill-equipped with clinical skills. Interns had the most to share about their experiences in the hospital, including inadequacy in clinical skills, and they questioned a curriculum that focused mainly on acquiring exam-oriented knowledge.

"A 'good teacher' makes a difference in imparting all three aspects of knowledge, skill and attitude." (Intern Y)

2.3 Organisational factors

From the data, a set of organisational factors emerged *de novo* that appears to influence student attitudes. These included an emphasis on ethics education and ethical conduct, rural service, mentorship and staff awards, resource allocation and institutional tradition/culture. Each of these factors had both positive and negative impact. A brief description of the themes and subthemes is given below with further description in Table 3.

2.3.1 Emphasis on ethics education and ethical conduct

Students appreciated the institutional emphasis on formal teaching of medical ethics.

2.3.2 Organisational policies

The policy of mandating rural service was appreciated by students as it provided the dual benefit of fulfilling the mission and ethos of the institution, and contributing to the formation of a doctor. However, social and peer pressures influenced some to abandon rural service after graduation. The mentorship programme of the institution was viewed as conceptually beneficial as the "moral support" provided by faculty mentors helped students navigate the challenges of the professional course. In practice, there were some inadequacies, related to availability and suitability of mentors.

The institution policy of including feedback from students for faculty promotions and awards was perceived as a

Table 3. Organisational factors

Themes and subthemes	Descriptions with illustrative quotes
Emphasis on ethics education and ethical conduct	<i>'There is a system in place' that reinforces 'the ethos and values' of the Institution (Intern Y) and appeared to have a positive influence on the medical students.</i> <i>'... makes us give more thought to ethical issues ...this rightly reflects the ethos and values of the institution' (2Y).</i>
Organisational policies	
Rural bond policy	Rural bond policy provided the dual benefit of fulfilling the mission and ethos of the institution <i>'to serve the underserved'</i> , at the same time providing a platform to become <i>'efficient and good doctors'</i> (2Y). While this view dominated the earlier years, students in the later years expressed a <i>'social pressure'</i> (4Y) of getting a postgraduate seat that challenged their priorities.
Mentorship program	Students found mentorship useful with faculty they could relate to. But, at times, few mentors who were <i>'not accessible'</i> to students.
Extracurricular activities	Students across all years expressed that these activities made them <i>'confident and responsible.'</i> <i>'helped them overcome their shyness,' 'taught them to balance studies and extracurricular,' 'gave them a break from studies,' 'surfaced their talents,' 'taught them team work, sense of sharing responsibilities,' 'felt a sense of completeness and satisfaction in life.'</i> Extracurricular activities played a major role in the <i>'personality development'</i> and <i>'character building'</i> and thus in the <i>'formation of a good doctor'</i> . However, few students felt <i>'peer pressure'</i> (1Y), <i>'an undeclared compulsion'</i> (2Y) to participate in these activities. <i>'...Extracurriculars prepare us for multitasking in future. Increase interactions between classmates, juniors and seniors...' (Intern Y)</i> <i>'...Extracurriculars are fun... Stress busters, help in character building, and teaches us to manage lot of things independentlyalso teaches how to work in groups... how to deal with difficult people you know...' (2Y)</i>
Faculty promotions and awards	Having student feedback valued for faculty promotions and awards, made students feel respected. They wanted to be similarly assessed in future when they become faculty.
Institutional tradition	Students recognised that institutional <i>'tradition,' 'spirit,' 'culture'</i> passed down through generations, led to the reinforcement of the institution's ethos, values and mission.

privilege, as it gave students the opportunity to express their experience with the faculty. That participation in extracurricular activities was given importance was acknowledged as essential for personal and professional growth. However, a few students spoke of undue peer pressure to participate, which was difficult to cope with.

2.3.3 Institutional traditions

Students observed that the traditions of the institution like inter-batch, inter-college cultural and sports programmes, the non-threatening fresher welcome and other college events led to bonding across batches, allowing for a percolation of values and traditions and formation of lasting friendships; some however felt "an undeclared stress" from peers (2Y) to conform to these subtle pressures.

2.4 Learnings from patients

Another fresh theme that emerged was the reflections of students on learnings from patients. They expressed a sense of gratitude to patients. Students admired the positive attitude of patients even in a helpless situation, which they felt *"was something to learn from"* (1Y). Faculty helped them recognise that *"knowledge is relative"*. Often the "most learned doctor" who has the medical knowledge learns several meaningful lessons from his patients.

Students developed sensitivity to patients' circumstances by observing faculty behaviour. A message they internalised was that irrespective of financial capacity, patients had to be treated without discrimination. The fine line between being objective and losing sensitivity when relating to patients was another learning.

"... at some point, you start dehumanising ...because if you have a lot of emotional attachment to a person, then you may not think very clearly and be able to treat them..." (4Y)

Other observations of students regarding patients were that: *"patients are responsive to the circumstances of the doctor and the hospital"* (1Y) and *"patients have evolved and have more expectations"* (3Y). Participants from the final year and interns noticed the vulnerability of patients due to socio-economic constraints and the power differential between patients and the doctor, leaving patients at the receiving end.

"Whether you are really nice or really rude, they will still look up to you and say thank you...." (3Y)

2.5 Influence of peers, extended healthcare team

Participants expressed their views regarding both positive and negative influence of peers and the extended healthcare team. It was mostly third- and fourth-year students, and interns who shared these insights.

2.5.1 Positive influences of peers, seniors and hostel life

The attitudes of concern, decorum, respect for tradition and time management were learned from seniors and peers. Advice from seniors helped students navigate the complex world of medical college, with tips on how to survive the pressures of exams, assignments, relationships and non-

academic campus activities. They even influenced decisions regarding rural service and postgraduation. Hostel life and interactions fostered character building, congeniality and team spirit. Working with younger students prepared them to be mentors. Peers also served to reflect their own person development reflecting strengths, weaknesses and areas of growth.

"More than learning medicine, you learn to live your life [hostel life], it changes everyone into proper complete individuals." (1Y)

Alumni: Alumni reunions exposed students to the lives of alumni doctors who had achieved recognition and made a difference in the wider world. They impressed students with their diverse career paths.

Nurses: The students felt that nurses had greater rapport with patients than any other member of the health team. Their interaction with nurses helped develop communication skills, perceived to be vital to understand and reassure the patient. Calling nurses and aides by their names, and a friendly, understanding attitude was felt to help in fostering more inclusive interactions with the clinical team.

"...the patient felt more comfortable with the nurse... the kind of rapport the nurses build with the patient..." (2Y)

2.5.2 Negative influences of peers and seniors

Students shared some negative experiences with peers at bedside clinics, in lecture rooms and outpatient rooms. The question of dignity of labour and hierarchy arose between interns and post-graduate students in the clinical setting. This pressure during the latter part of medical training tended to alter the relationship from mutual admiration to competition for postgraduate training. There appeared to be a shift from helping others to helping themselves.

3. Impact of the hidden curriculum

The above areas of the hidden curriculum derived from student experiences influenced the lives of medical students in several areas, categorised under the following themes [Flowchart 1 (b), available online only].

3.1 Personal growth

Over the years, interactions with positive and negative role models resulted in an understanding of desirable and non-desirable behaviour, and the need to develop a capacity to discern *"what to imbibe and what not to imbibe"*. It also taught students to deal with problems like poverty and helplessness in patients. They learned from seniors and peers how to cope with the pressures of the daily routine and develop a balance between professional and personal life. Students felt that influence of the hidden curriculum contributed to their maturity, personality, decision making skills, responsibility and coping skills.

"...I have changed quite a bit in the last 4 years. I am more broadminded and less judgmental because I have seen different kinds of people around me." (4Y)

The negative impact on personal growth was described as a sense of inadequacy and hardening of spirit. Certain students experienced difficulties in handling the stress of the profession. Students were affected by social pressures, and peer pressure towards the end of the course, which influenced career decisions. Students also felt toughened by experiences during medical training.

3.2 Concept of the ideal doctor

The perceptions of each participating student regarding what constitutes "the ideal doctor" was evaluated by a ranking exercise of six attributes — Compassion, Success, Influence, Financial independence, Competence and Ethics (Table 4). These results were then discussed by the group. Across the years of training, compassion, competence and being ethical were ranked higher than being successful, influential or financially independent. This was justified by the logic *"Success will come eventually if you are good, and that financial independence comes if you work hard and have experience"* (2Y). There was a marginal shift to a lower rank, of the attribute "Ethics" among the fourth-year students and interns as compared to students of earlier years. "Success" and "Financial Independence" were ranked higher among interns compared to the earlier years of medical school perhaps because of their closer proximity to real life pressures. It could be worth noting that the attribute of "Influence" was ranked poorly across the years, although certain students did recognise the importance of the doctor as an agent of change and impact.

"If doctors had competence and compassion, they would be successful." (1Y)

3.3 Perception of "being ethical"

During the first-year, being "ethical" was all about doing what was right and noble, and students embraced their career with the dream of becoming an "ideal" doctor. Over the years, experiences and observations during medical training changed their perceptions of being ethical. Students expressed the need to respect persons who may have different values. They felt that being ethical did not mean having rigid beliefs but needed to include a practical approach to making clinical decisions. A sample of views below reiterate this trend across the years in medical college:

"Something that attracted me towards the medical profession is the credible work ethics that doctors have ... for the doctor, the medical profession is central, it is primary, right to the point where everything is secondary, whether it is their family, or whatever else..." (1Y)

Table 4. Attributes of an Ideal doctor - ranking exercise

Attributes	Batches				
	1Y (N=19)	2Y (N=17)	3Y (N=16)	4Y (N=17)	Intern Y(N=14)
1. Compassionate	2.06 [1.3]	2.16 [1.2]	1.6 [0.8]	2.4 [1.2]	2.3 [1.2]
2. Competent	2.2 [1.1]	2.0 [1.3]	2.5 [1.5]	1.9 [1.4]	2.0 [1.3]
3. Ethical	2.3 [1.0]	2.6 [0.7]	2.2 [0.7]	3.0 [1.4]	3.0 [1.5]
4. Successful	4.5 [1.1]	4.1 [1.3]	4.8 [0.7]	4.1 [1.1]	3.8 [1.7]
5. Financially Independent	4.8 [0.8]	4.5 [0.7]	5.2 [0.9]	4.9 [1.3]	4.2 [1.2]
6. Influential	5.0 [1.2]	5.1 [1.6]	4.8 [1.2]	4.7 [1.4]	5.2 [1.2]
<i>Data indicates Mean and in [] ± Standard Deviation (SD); Higher the score, lower the ranking</i>					

Overall, the data revealed the influence of various elements of the hidden curriculum such as role modelling, imbalance in emphasis on knowledge, skill and attitude, organisational factors, learnings from patients and influence of peers and extended team on medical students. These impacted the doctor-in-formation by influencing their personal growth, their concept of the ideal doctor and their perception of being ethical.

Discussion

This study allowed an exploration of the unintended learning from the medical training environment that influenced the formation of a medical professional. Unpacking the hidden curriculum uncovered strong connections between the formal and hidden curriculum. The influence of the hidden curriculum varied across the years; idealism expressed in the earlier years appeared to be modified by the influences of role models, college traditions, peers, patients, and social expectations. Students witnessed inconsistencies between what was taught and what was practised, and struggled to reconcile the “ideal” with “reality”.

The importance of role modelling in imbibing “attitudes,” “how to be” and “how not to be” [8,10] appears to be in line with studies that explored the attributes of positive role models in the medical training environment [5-8,21,22]. Students observed the difference between the “ideal” and “real” doctor in negative role models, which turned idealism into pragmatism. Faculty, peers and senior medical students appeared to have a major influence on students over the rest of the healthcare team as supported in the literature [5,12]. Attitudes evolved from mutual admiration to competitiveness as reflected in similar studies [5]. The constant comparison of what is taught with what is practised signals the need for consciousness among medical educators that students are

evaluating their practice and behaviour in comparison to what they formally teach in the classroom [21].

Institutional policies and traditions, experiences with peers and alumni fostered personal growth and emphasis on ethical values and service. Student-centered policies like mentorship and faculty awards were appreciated. However, some dilemmas like the choice between rural service and post-graduation were hard to resolve, aggravated by social pressures.

Two novel dimensions of the hidden curriculum that emerged through this study — probably reflecting the unique context of the medical education system in India and socio-economic realities — were an “imbalance in the emphasis on knowledge-skills-attitudes” and “lessons from patients”. The need to “compete” with peers and seniors for a chance to acquire skills, was a telling outcome of the formal system [10]. Students developed a sense of gratitude to patients and sensitivity to their vulnerability. Thus, students’ learning from patients was not confined to medical knowledge but entered the realm of inter-personal behaviour and attitudes [23-26].

Students were candid about experiences with faculty, peers and patients that shaped their image of a “good” doctor. However, the value placed on “being ethical” gradually changed through the years, through student experiences, and the conflict between the ideal and reality was found hard to handle [27,28,29]. Some participants derived positive learnings of how not to behave, from negative experiences. Students were generally confident of the stand they needed to take, while some expressed confusion and ethical dilemmas. Overall, students also felt that their experiences were unique and special and cherished the environment in which they studied.

It appears that across the world, students struggle with positive and negative aspects of the hidden curriculum that shape their personal growth, their concept of the “ideal doctor”, and understanding of “being ethical” [10,25]. This study presents the possibility of introducing awareness and changes in the medical training environment. Awareness of the impact of role modelling and organisational factors in the hidden curriculum can help to transition some of the unintended learning into the intended formal curriculum to address concerns and optimise training outcomes [5,7,30,31]. Faculty may need to be more conscious that their behaviour and attitude is being observed and taken as a model and internalised by the students. New faculty need to be familiarised with the mission, vision and ethos of the institution, emphasising appropriate conduct as it directly impacts the students they encounter.

Being aware and conscious of the impact of the hidden curriculum would help to reconsider the planning and implementation of sessions in AETCOM, the foundation course, certifications, and spiral integration in the CBME curriculum.

We infer that pedagogical methods like experiential learning, critical reflection, and social learning have a vital role to play in the influence of the hidden curriculum in medical colleges. The value of the hidden curriculum is immense in building of moral sensitivity, judgement, motivation, and character; and not just knowledge of vision statements, institutional rules, and subject matter competence [32,33,34].

Limitations and gaps

This study was conducted just prior to the implementation of the CBME curriculum by the Medical Council of India [2] (now called the National Medical Commission). It would be worthwhile to conduct a study on the hidden curriculum again to observe possible changes resulting from the revision of the formal curriculum. This study contains the reflections of students from a single medical college. Further, the institution has a formal ethics training in place, which is not necessarily the case in other medical colleges. Hence, it is worthwhile to explore the hidden curriculum as a multicentre study to provide a more comprehensive overview and recommendations. This cross-sectional study does not capture the prospective changes in the perceptions of a single batch of students over the years of medical training. The area of corruption in healthcare did not come up spontaneously in the discussion and was not actively explored. A methodological limitation was that it looked at the hidden curriculum only through students’ perceptions and, hence, lacks the views of faculty, postgraduates and the management of the institution, all of which need to be explored in future studies. There is also potential to validate the findings of this study, using mixed methods, among multiple medical colleges across India.

Conclusions and recommendations

Exploration of the hidden curriculum provided an understanding of broader areas from which students draw learning. A wide range of influences emerge from the organisation, medical educators and peers. Awareness of the impact of the hidden curriculum can help to transition some of the unintended learning into the intended formal curriculum. Organisational practices need to reinforce desirable behaviours among faculty, keeping in mind the importance of positive role modelling. Medical education practices and policies at the college level convey values and should be intentionally designed and reinforced. Spaces for discussion could be created for students and faculty to discuss the disparity between the “ideal and reality” and “how to handle dilemmas”.

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Authors’ Note: This study was carried out between 2016 and 2017. In the intervening years the Covid 19 pandemic occurred and AETCOM was introduced into the formal curriculum in 2019. This paper was submitted and published after almost 9 years. Even so, the hidden curriculum, as described, continues to exist.

Conflict of interest: None declared.

Funding: The study was supported by a grant from the Institutional Ethics Committee, St John’s Medical College for the year 2016-17.

Acknowledgments: The authors would like to thank the MBBS students of 2011 to 2015 batches for having volunteered to participate in the focused group discussion of this project. We would like to thank Dr Mario Vaz, former Professor of Physiology and Head of Division of Health and Humanities, St John’s Medical College, Bangalore, for his constant support and guidance through the project and critical review of the manuscript. We are grateful to the Institutional Ethics Committee, St John’s Medical College, for financial support.

Ethics approval: The study was approved by the Institutional Ethics Committee of St John’s National Medical College and Hospital (IEC Ref No. 121/2016).

Data sharing: Data not made available in the public domain. The corresponding author may be contacted for access to raw data.

To cite: Savitha D, Timms O, Vaz M. An exploration of the hidden curriculum in undergraduate medical training: students’ perspectives (2016-2017). *Indian J Med Ethics*. Published online first on September 21, 2026. DOI: 10.20529/IJME.2026.057

Submission received: August 21, 2025

Submission accepted: April 4, 2026

Manuscript Editor: Vijayaprasad Gopichandran

Peer Reviewers: Ranjith Viswanath and an anonymous reviewer

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