

Assessing the Impact of Integrating the AETCOM Module on Doctor-Patient Relationship into the First Phase Medical Curriculum

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Abstract

Background: The doctor-patient relationship is an integral part of community care, which has long-term effects on patients' physical and mental well-being. "Competency-Based Undergraduate Medical Education Curriculum 2019(CBME)" has integrated a structured "Attitude, Ethics, and Communication" (AETCOM) program in the MBBS curriculum. AETCOM module 1.3 focuses on the "doctor-patient relationship" (DPR).

Objectives: The objective of this study was to know the effectiveness of implementing an AETCOM session on the DPR and to analyse the students' perceptions of the AETCOM module 1.3.

Methods: This Quasi-experimental study was carried out after obtaining institutional Ethical clearance and consent from the participants. 157 out of 250 Phase I MBBS students participated in the study. AETCOM module on the "doctor-patient relationship" was taught to the first phase MBBS students through an interactive lecture, role play and videos. Pre-tests and post-tests were conducted to find out the effectiveness of the module. The students' perception was assessed through a feedback-based 5-point Likert scale. A paired T-test was used to determine the statistical significance (p-value < 0.05 considered significant).

Results: Our study showed significantly higher post-test marks than pretest ones with a p-value < 0.05. The students responded positively to the AETCOM module and ascertained that it made them aware of the patient's rights and would facilitate future interaction with patients.

Conclusion: This study emphasizes the necessity of including the "doctor-patient relationship" module as a part of the medical undergraduate curriculum, as it will prime the students regarding their roles and responsibilities toward patients and the community.

Keywords: AETCOM Module; Doctor-Patient Relationship; CBME; Empathy

Background

The doctor-patient relationship is an integral part of community care, which has long-term effects on patients' physical and mental well-being (1). This is especially important these days as there are increasing conflicts between doctors and patients (2, 3). To be a competent doctor, undergraduate medical students must learn interaction skills that will help them interact with patients on a personal level. However, for years, soft skills like attitude, ethics and communication were

informally taught to medical students through the "hidden curriculum," where teachers disseminated the AETCOM lessons to the students during clinical postings and internship duty (4, 5). However, these informal teaching methods often fail to develop the required skills, increasing disharmony in the doctor-patient relationship. To tackle this issue, the "Competency-Based Undergraduate Medical Education Curriculum 2019 (CBME)" has integrated a structured "Attitude, Ethics, and Communication" (AETCOM)

program in the MBBS curriculum. This initiative envisages equipping medical students with the knowledge and skills essential for a physician (6, 7). Under the CBME curriculum, training in soft skills has been introduced right from the beginning of the first phase of MBBS. Indian medical graduates need to possess a thorough understanding of the legal and ethical responsibilities governing the doctor-patient relationship, behavior towards patients, communication, and respect for the cadaver, and these are taught in the AETCOM classes just like teaching other medical subjects (8-10).

AETCOM module 1.3 focuses on the “doctor-patient relationship” (DPR). This module emphasizes teaching the students the role of empathy in patient encounters. Empathy in healthcare is pivotal in improving the satisfaction level of patients and achieving a good doctor-patient relationship. “The ability of a doctor to appropriately recognize a patient’s emotional state and to express that understanding to the patient is known as empathy in the medical sector” (11, 12).

The CBME curriculum has been implemented since 2019, however, there is a clear research gap in assessing the effectiveness of structured AETCOM modules, especially during the First phase of medical education. The AETCOM part remains a grey area in medical education, so there are only a few studies on AETCOM in medical education. Hence, this study aimed to know the effectiveness of implementing AETCOM sessions on the “doctor-patient relationship” and to analyze and explore the students’ perceptions of the AETCOM module 1.3 on the doctor-patient relationship based on the content, delivery, and relevance of the module.

Objectives

The objective of this study was to know the effectiveness of implementing an AETCOM session on the DPR and to analyse the students’ perceptions of the AETCOM module 1.3.

Methods

This study was carried out in the Department of Physiology, in a medical college of Bhubaneswar, Odisha, after obtaining Institutional ethical clearance and written consent from all the participants.

Study design: Cross-sectional I study

Study participants: First year MBBS students

Inclusion criteria: All the first-phase medical students who attended the AETCOM class on the day of study and consented to participate in the study.

Exclusion criteria: The first phase medical students who did not attend the AETCOM class on the day of study.

Sample size: The calculated sample size was 154 using the formula $n = N / (1 + N \cdot e^2)$ (n = required sample size, N = population size (here, 250), e = margin of error (commonly 0.05 for 5%). However, for better representation, we included all the 157 students who attended the class that day and consented to participate in the study.

Sampling method: Convenient sampling

Study tool

Quantitative Data: MCQs were used to assess knowledge through pre- and post-tests, and a Likert Scale-based Feedback Questionnaire was used to assess the students’ perceptions. The questions were prepared from recommended books on AETCOM and a thorough literature review. The content validity of the test questions was established by four subject experts in Physiology and four members of the Medical Education Unit. Using a 4-point rating system (1 being irrelevant and 4 being highly relevant), each expert independently assessed the test items’ relevance, clarity, and alignment with the intended learning objectives. Each item and the test as a whole had a Content Validity Index (CVI) determined. Items were kept if their item-level CVI (I-CVI) was ≥ 0.78 . Cronbach’s alpha was used to evaluate the test’s internal consistency. The test items’ acceptable reliability was indicated by the computed alpha coefficient, which was 0.82.

Qualitative Data: Reflective writings of students on the session were used to evaluate the students’ views regarding the “doctor-patient relationship”.

Data collection: Data collection was done by structured MCQs and the feedback from the students during the pre and post intervention period (Figure 1).

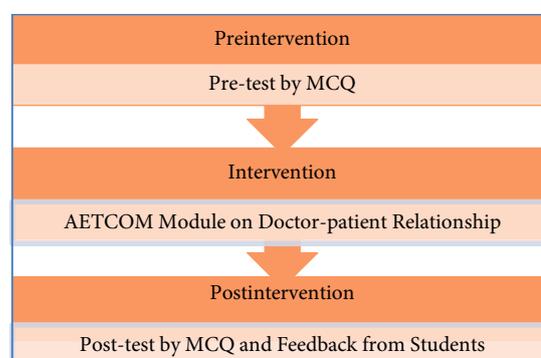


Figure 1. Stages of conducting the study and data collection

1. Preintervention: A pre-test Assessment was done by MCQs to obtain baseline data for assessing the

student’s prior understanding of the AETCOM module 1.3 on the “doctor- patient relationship”.

2. Intervention: Here, the students were taught about the given module in two steps:

- **Step 1:** The class's learning objectives were set, and the teaching schedule was designed meticulously and arranged as per the learning objectives.
- **Step 2:** The S.I.R technique (13) was adopted to implement the AETCOM module. S.I.R is the abbreviation for “sensitisation, immersion and reflective writing”.
 - Sensitization was done through an interactive lecture by the teacher.
 - Immersion was done by video-based learning and role-play by students.
 - Reflective writing: students were asked to write reflective on the class under the headings, “what happened, so what, and what next?” in their log books and qualitative analysis of these writings was done.

3. Post-intervention: A post-test Assessment was done by MCQs following the completion of the AETCOM module to assess change in the student’s understanding regarding the module on the doctor-patient relationship.

4. Finally, a revalidated questionnaire was circulated among the students in the Google form link, and their feedback was collected.

Data analysis: The data analysis was done using SPSS software. Qualitative analysis was done by obtaining percentages in student’s perception data. Paired t-test was used to compare the means for statistical significance. P value <0.05 was considered as statistically significant.

Results

A total of 157 first-phase MBBS students participated in the study. Out of the 157 participants, 69 were female and 88 were male (Figure 2).

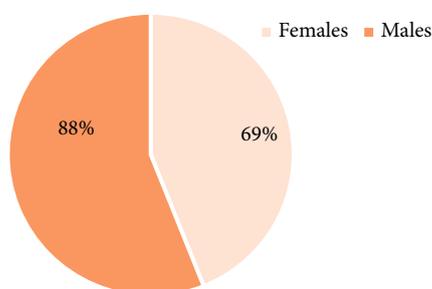


Figure 2. Distribution of study participants

The mean pre-test score was (3.20 ± 1.40) and following the implementation of the AETCOM module

on the Doctor-patient relationship, the mean post-test score increased significantly to (5.32 ± 1.85). This improvement in the post-test score was statistically significant with a p-value of 0.0014 (Table 1), indicating the effectiveness of implementing the AETCOM module.

Table 1. Comparison of Mean pre-test and post-test marks of the AETCOM module on doctor-patient relationship

Tests	Mean marks obtained	Standard deviation	P value
Pre-test	3.20	1.40	0.0014*
Post-test	5.32	1.85	

*P-value significant

The students provided positive feedback regarding the AETCOM modules (Table 2). The majority of the students strongly agreed that the session on the “doctor-patient relationship” enhanced their knowledge about the DPR (66.2%), it will be helpful in future patient interactions (66.2%), it will help them gain the confidence of patients and for gaining their self-confidence (60.5%), it will help them in their practice in future and a valuable method for improving their diagnosis (57.3%), understanding and respecting patients are a good part of DPR (79%), treating all patients with equanimity is an important aspect of clinical practice (75.2%), gained insight into patient’s right (59.2%), gained insight into doctor’s rights (61.5%) and satisfied with module 43.9%. 67.9% of students strongly agreed that it should be included in the MBBS curriculum.

Students' reflections demonstrate profound personal commitment and ethical understanding developed through this module (Table 3).

Discussion

The "Indian Medical Graduate" (IMG) must have the desired knowledge, skills, and attitudes to effectively serve as a physician of first contact when exposed to the community. Soft skills like attitude, ethics and communication were not included in the medical curriculum and were not emphasized upon, so there were many flaws in the interaction and communication between doctors and their patients. There are growing cases of violence against doctors due to the strained relationship between them. A good interpersonal relationship between a doctor and his patient will not only help gather information and aid in accurate diagnosis of the disease but also help counsel the patients appropriately, dispense therapeutic directions, and set up caring relationships with patients.

MCI and the NMC, India, have given utmost importance to it and have introduced “Attitude Ethics and Communication (AETCOM)” in GMER-2019. Taking into account its content, including the principles of bioethics and communication skills, the teaching-learning methods have to be interactive. There are several methods recommended for the AETCOM booklet by the NMC, including role-play, case studies, focused group discussions, and peer-assisted learning, in addition to traditional methods (14). Communication remains a central place in AETCOM, which paves the way to learn and imbibe the virtues positively. With the stressful medical education curriculum, the medical students are liable to suffer from ‘burnout symptoms’, which is another major reason for the decrease in moral professionalism and decreased empathy scores. One of the integral parts of the health-care delivery system is the doctor-patient relationship. Therefore, we must train our students in this aspect. Soft skills like knowledge and practical experience in medical ethics are acquired through observing seniors and exposure to different clinical situations (15). This dimension was not emphasised in mainstream medical education, and a disparity existed between the knowledge acquired in theory class and the execution of the soft skills. A study by Ahsin et al. and Mueller and Roberts et al. has highlighted the importance of medical ethics and communication in the medical curriculum (16-18). De Vignemont F and Jacob P state that “empathy must be supplemented by other experiences like sympathy and care (19). Recognising this gap, the Medical Council of India introduced AETCOM modules in the training period for medical students. AETCOM modules 1.3 encompass “doctor-patient relationships (20).” However, the MCI/NMC has introduced “AETCOM modules”, but its proper implementation requires to be monitored. There should be a timely evaluation of the “AETCOM modules” Moreover, as there is increased agitation in society due to a lack of empathy towards patients, our duty as medical teachers is to create awareness of the “doctor-patient relationship” among budding doctors. It is important to ignite the essence of ethics and professionalism as early as possible. As first-contact physicians, medical students must be well-equipped with the knowledge and skills to disperse their duties properly.

Teachers must be well-trained to impart the right knowledge and skills to their students, which will help in future while interacting with their patients. Empathy in the “doctor-patient relationship” can be taught through role play and videos. Students must be aware of the rights of doctors and patients and should treat patients

with utmost care and empathy. During the AETCOM session, we addressed the medical students regarding the need to respect and understand patients, develop a holistic approach while treating their patients, understand patients' complaints, and try to cure the disease by an empathetic approach. Students were also given an insight into the advantages of developing a positive “doctor-patient relationship”. Our study has shown significant change in the post-intervention scores, suggesting that the module effectively imparts knowledge after the AETCOM session on the “doctor-patient relationship”; students developed an increased understanding of the importance of empathy towards patients (Table 1). Analysis of the student's perception of the AETCOM module on the “doctor-patient relationship” (Table 2) and post-session reflection (Table 3) showed that most students understood the importance of the module and revealed their satisfaction with the module. Our study is similar to the findings of Bidikar et al. (21). Including AETCOM modules in the CBME curriculum to explicitly instil “attitude, ethics, and communication skills” (AETCOM) in the medical education curriculum is beneficial for igniting the importance of ethics and professionalism in the minds of medical students. Our study highlights the significant educational value and positive impact of implementation structured AETCOM module on the doctor-patient relationship (DPR) among first-phase MBBS students. The major implications of our study are, promoting empathy and ethical practice in future clinicians and enhancing clinical readiness and patient-centered care in real time scenario.

Limitations: The study included only one AETCOM module implemented in the first-year MBBS curriculum. It was not implemented in the second and final years when the students are actually exposed to the patients. Students might have given favourable feedback to align with perceived expectations, rather than reflecting their true opinions. Also, the long-term effect of the module couldn't be determined. We recommend a follow-up study to determine the long-term impact of this module and a detailed evaluation of other AETCOM modules to determine the effectiveness of implementing the AETCOM Modules. Our study is a single institutional study, to increase generalizability, multi-centric studies involving multiple medical colleges across different regions should be conducted.

Conclusion

Good “doctor-patient relation” is a fundamental aspect of the AETCOM module, which is crucial for

bridging the gap between doctors and patients and ensuring effective patient management. Our study highlights the need to implement the AETCOM module in the medical curriculum right from the first year of MBBS so that they are equipped with adequate knowledge and skills before they are actually exposed to their patients in future. The faculty members should also undergo sensitisation and training on AETCOM before they give proper training to the MBBS students. They must ensure that as Indian medical graduates, the students develop comprehensive competencies in AETCOM needed to be the “physician of first contact”. We recommend that the teaching of the AETCOM modules should start from first year of medical education and should be reinforced longitudinally through all years of medical training to ensure retention and practical application. Further longitudinal studies must examine how AETCOM modules influences clinical behavior during internship and practice to assess real world effectiveness and guide ongoing improvement.

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Conflict of interests: There is no conflict of interest.

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Table 2. Medical students' perception of the AETCOM module on "Doctor-patient relationship"

Questions	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
	%				
1. Increased knowledge about doctor patient relationship	66.2	29.4	2.4	0	0
2. Helpful in future patient interactions.	65.2	32.1	2.1	0.6	0
3. Useful for gaining patients' confidence and gaining self-confidence	60.5	35.5	3	0.8	0
4. Useful for improving diagnosis in future	57.3	35.6	4	3.1	0
5. Understanding and respecting patients are a good part of the patient-doctor relationship.	79	18.7	1.3	1	0
6. Learned that treating all patients with equanimity is an important aspect of clinical practice.	75.2	24.2	0.6	0.2	0
7. Gained insight about patient's rights	60	35	4	1	0
8. Gained insight about doctor's right	61.5	32.4	5	1.1	0
9. Satisfied with module.	43	47.1	8.9	0.9	0
10. Should be included in the MBBS curriculum	66.9	30.1	2	1	0

Table 3. Medical students' reflections on their learning experience in the AETCOM session on the doctor-patient relationship

"As a medical student, I will be empathetic to all my patients I will respect them and try to heal them physically and mentally".
"I will be compassionate towards my patients and make them feel as comfortable as possible".
"Empathy for me is keeping myself in somebody else's shoes and feeling his or her feelings/pain. So, I will be empathetic with my patients".
"I will start my therapy after carefully listening to my patient's problems".
"As a doctor, I will try my best to show the right behaviour to my patients".
"I will be kind and compassionate while dealing with my patients".
"I will try to build the trust between my patient and me".
"I will not discriminate between patients based on their socio-economic status or religion".
"I will listen to my patient's problem with patience".
"I will treat my patients with utmost care no matter the situation."
"I will try to develop the right communication skills to build a good doctor-patient relationship".