

Effectiveness of AETCOM in changing behavioural trends of medical students- With an emphasis on module 2.4 –Working in a health care team

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Abstract

Introduction: Health care team is a multidisciplinary team. Working in a health care team as a leader and effective team member plays an important role in proper evaluation, diagnosis and treatment of the patient and is a prerequisite for improving overall patient care. Introduction of Attitude, Ethics and Communication (AETCOM) modules by NMC in the undergraduate curriculum helps Indian medical graduate (IMG) to improve their soft skills.

Aim and Objectives: To evaluate the effectiveness of AETCOM module 2.4 training in changing the perspective and improving the knowledge of medical students towards working in a healthcare team.

Methods: A Module based interventional study was conducted among 2nd year MBBS students at KIMS & RF, Amalapuram. The tool used to assess the pre & post interventional results is 5 point Likert's scale for 30 statements distributed over 5 domains (Structure of health-care team, Role of team member, Team work, Communication, Leadership). The difference in the means of pre test scores and post test scores were analysed for statistical significance using Paired T test (p value < 0.05 considered significant).

Results: The post test scores were higher when compared to the pre test scores with regard to all the 5 domains. Statistical significance was observed in 23(76.6%) statements.

Conclusion: Present study shows that AETCOM Module is effective in improving the knowledge and changing the perspective of medical students regarding working in a health care team, which in turn will improve the patient care and outcome.

Key words: AETCOM, Health-care team, Medical students, Communication, leadership.

Introduction

The increased level of mistrust of the general population upon the medical professionals due to negligence, misconduct, and unethical practices leading to violence and legal complications points to the dire need for revision of the existing medical curriculum. (1)

In its revised competency-based MBBS curriculum, the Medical Council of India (MCI) has introduced the Attitude, Ethics and Communication(AETCOM), a longitudinal modular programme with dedicated time in all phases of the MBBS course.(2)

AETCOM module has been prepared as a guide to facilitate institutions and faculty in implementing a longitudinal program that will help students acquire necessary competence in the attitudinal, ethical and communication domains.(3)

The AETCOM module gives flexibility to institutions on developing their own approaches. Since assessment propels learning, there is a built-in provision for both formative and summative assessment at the end of each professional year(2)

An effective teamwork is now globally recognized as an essential tool for constructing a more effective and patient centred health care delivery system.(4)

The AETCOM competency module 2.4-“Working in a Healthcare team as a leader and member of health team” aims at introducing students to health care systems and their functions.

The present study aims to evaluate effectiveness of AETCOM sessions in changing the perspective and improving the knowledge of second year MBBS students regarding working in a health care team.

Materials and Methods

This is intervention based cross sectional study conducted among the 2nd MBBS students at KIMS & RF, Amalapuram, from 01/04/2023 to 30/04/2023

Inclusion criteria - Students who attended and willing to participate in both pre and post intervention tests were taken as the study participants.

Exclusion criteria - Those who are not willing to participate and those who did not attend both the sessions and/or training exercise were excluded from the study. Informed consent was taken from the students who are willing to participate before starting the study. Institutional Ethics Committee (IEC) approval was taken before conducting the study.

Sample size – 63. Sample type – Convenient sampling

The tool used is pre tested structured checklist. To assess the pre & post interventional results 5 point Likert's scale is used with Strongly Agree/ Agree / neutral / Disagree /strongly Disagree as options for each statement. For a positive attitude statement, scores of five, four, three, two and one for “strongly agree”, “agree”, “neutral”, “disagree” and “strongly disagree”, were given respectively. This scoring was reversed for the negative attitude statement.

The statements for assessment were based on the AETCOM module 2.4 Working in a health care team as a leader and member of health team.

These statements were divided into 5 domains

- I) Structure of health care team
- II) Role of team member
- III) Team work
- IV) Communication
- V) Leadership

Intervention

Prior to the commencement of AETCOM sessions, pre test checklist was given to the students.

AETCOM sessions was conducted for a total of 6hrs over a period of 3 days.

Day 1 – PPT aided lecture - 1hr, Discussion - 1hr

Day 2 - Tag along session to observe different health care teams in the hospital – 2hrs

Day 3 - Students presented their observations and suggestions for improving functioning of health care team – 1.5hr, Students participated in Role play – 0.5hr.

Post intervention -

Students were again assessed using same checklist given before.

Feedback column was also included with the checklist.

Statistical analysis-

Data was collected and entered in MS excel.

Analysis was done using SPSS version 24 and applied appropriate statistical tests that is paired T test.

Results -

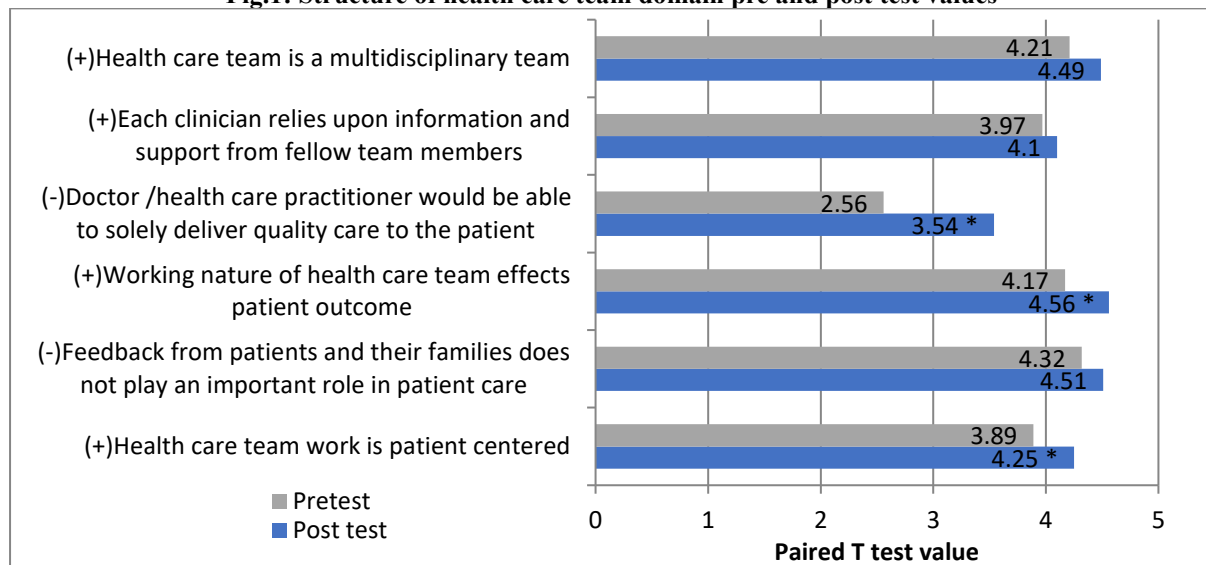
The total of 63 students from 2nd MBBS participated in the study, gave their opinions on a 5 point Likert's scale for a total of 30 statements.

Out of 63 students, 43 were female and 20 were male. Mean age of the students were 19.63± 0.725

Table 1: Demographic variables

Demographic Variable	Classification	Frequency	Percentage
Gender	Male	20	31.75
	Female	43	68.25
Age	Mean±S.D.	19.63±0.725	

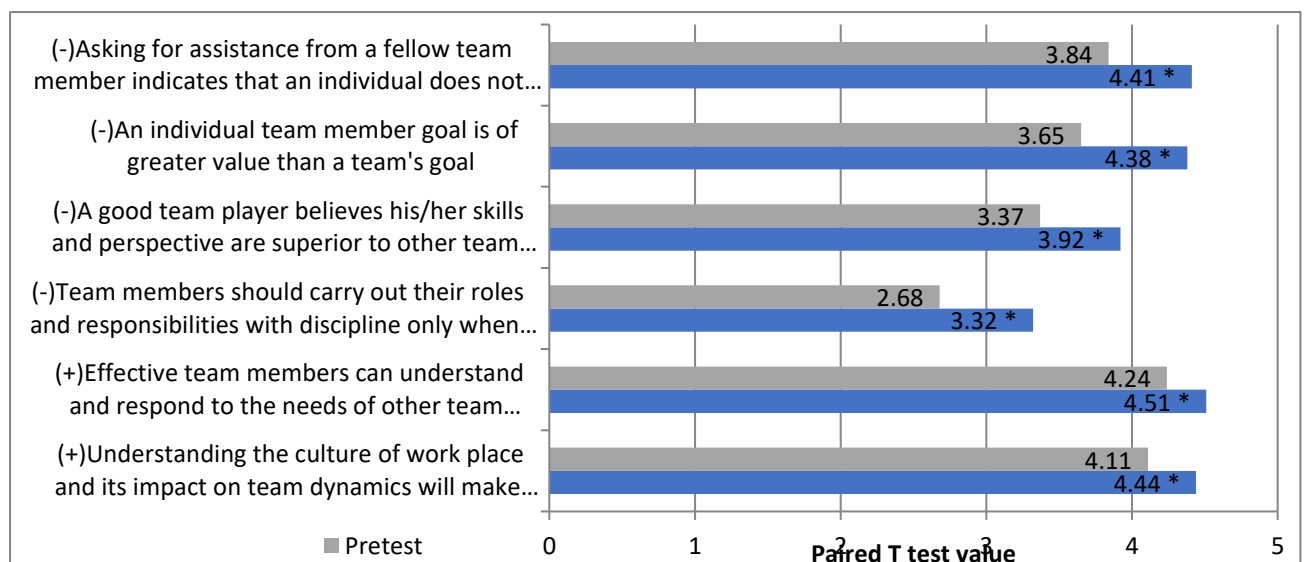
Fig.1: Structure of health care team domain pre and post test values



*Significant P value (<0.05), (+): Positive statement, (-): Negative statement

Significance between pre and post test scores was observed in 3 out of 6 statements (50%)

Fig.2: Role of team member domain pre and post test values



*Significant P value (<0.05), (+): Positive statement, (-): Negative statement

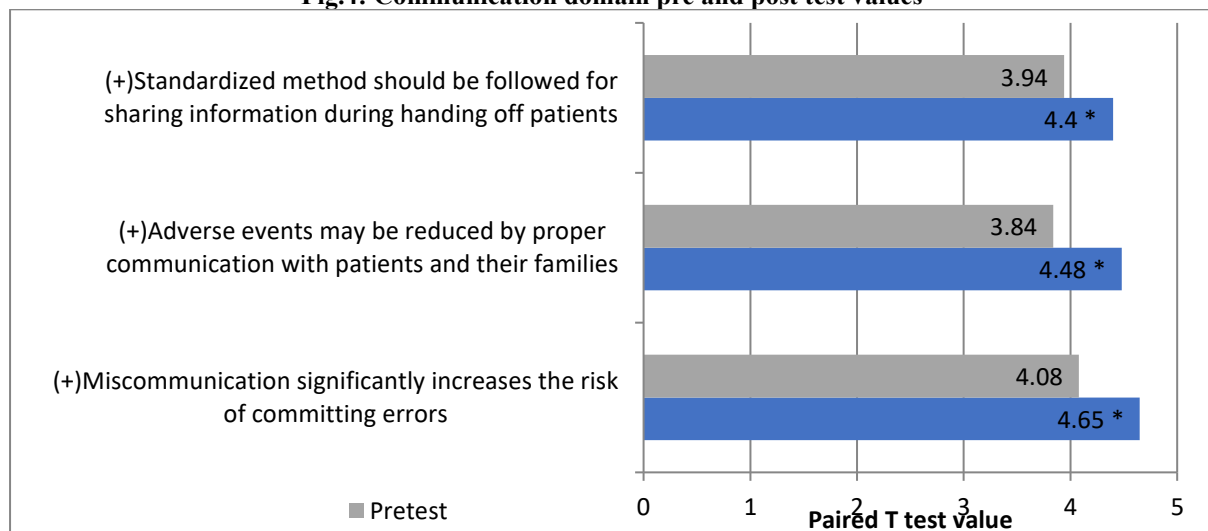
Significance between pre and post test scores was observed in 6 out of 6 statements (100%)

Fig.3: Team work domain pre and post test values



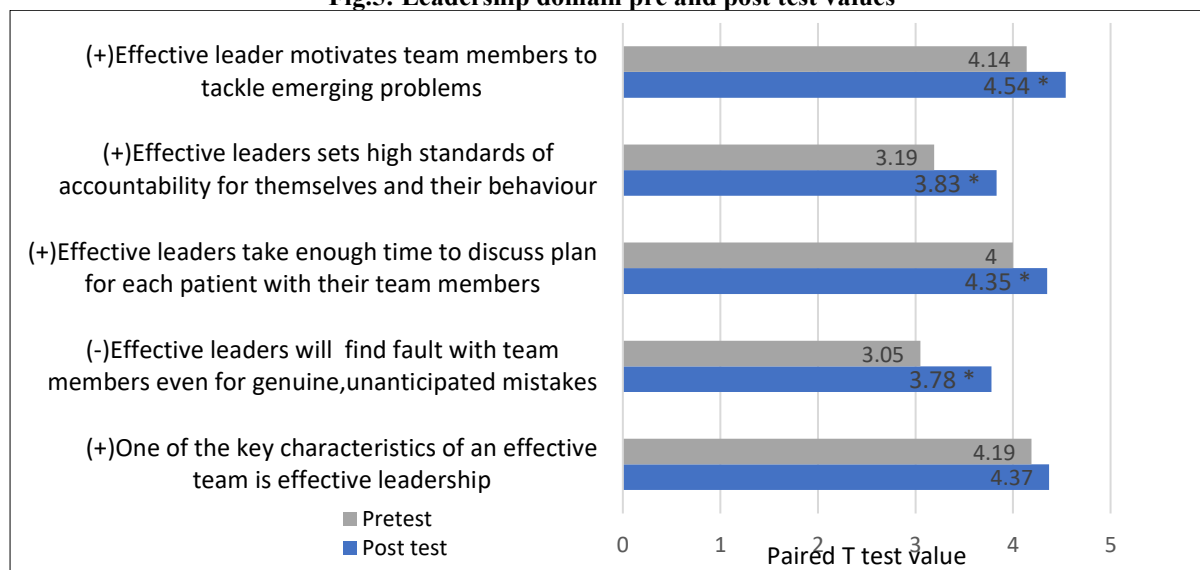
*Significant P value (<0.05), (+): Positive statement, (-): Negative statement
Significance between pre and post test scores was observed in 7 out of 10 statements (70%)

Fig.4: Communication domain pre and post test values



*Significant P value (<0.05), (+): Positive statement, (-): Negative statement
Significance between pre and post test scores was observed in 3 out of 3 statements (100%)

Fig.5: Leadership domain pre and post test values



*Significant P value (<0.05), (+): Positive statement, (-): Negative statement
Significance between pre and post test scores was observed in 4 out of 5 statements (80%)

Table 2: Mean pretest scores and posttest scores of the domains

Domains	Mean	
	Pre test score	Post test score
Structure of health care team	3.85	4.24
Role of team member	3.64	4.16
Team work	3.47	4.03
Communication	3.95	4.51
Leadership	3.71	4.06

On Pre & post test score means comparison, we got significant difference

Discussion

AETCOM modules aims to introduce and impart necessary knowledge and also skills to be a medical professional and effective physician. This is especially important in today's era because of increasing conflicts between doctors and patients.

The “Competency Based Undergraduate Medical Education Curriculum 2019” has introduced a structured program on “Attitude, Ethics and Communication”.

It offers a framework of competency-based learning in the AETCOM domains that a medical professional must possess at the time of graduation to effectively fulfill the functions of IMG as a clinician, leader and member of health-care team and system, communicator, lifelong learner, and a professional(5)

It is important to note that the training imparted to the medical students improves their inter professional communication skills, thereby improving their leadership role as well as their ability to work as members of the health-care team.(6)

The purpose of this study is to evaluate the effectiveness of AETCOM module –2.4 working in a health care team, in changing behavioral trends of the medical students after methodical training and approach.

In the present study we observed the difference in all the 5 domains after comparison of statistical analysis of pre and post test scores. Significant statistical analysis was observed in 23 out of 30 statements (76.6%).

Domain 1 - Structure of health care team:

Health care team usually consist of team members who are direct-care providers such as doctors, nurses, pharmacists, paramedical staff and assistants. They also include case managers.(4)(7)

In pretest, students had the knowledge of 3 out of 6 statements in Structure of health care team domain. After AETCOM session, their perspective has changed in rest of the 3 statements with significant P value.

Students gained knowledge that, working nature of health care team will effect patient outcome and also Health care team work is patient centred.

Domain 2 - Role of team member:

In Role of team member domain, there is significant P value for all the statements.

The attitude of students was changed towards importance of team's goal rather than individual team member goal.

Students initially thought that Asking for assistance from a fellow team member indicates that they do not know how to do his or her job effectively but after AETCOM session, students came to know that asking assistance from a fellow team member is not being inferior to them or not to feel less than them. It was a part of learning process and it also aids in better patient care.

Domain 3 - Team work:

Importance of team work was better understood by students after AETCOM session by showing significant P value in 7 out of 10 statements in Team work domain.

Health care team includes doctors, nursing staff and paramedical staff etc...

Students came to know about importance of each team member in a health care team and irrespective of their job roles work of every team member plays an important role in better patient outcome. They agreed that understanding the working nature of fellow team members is required for an effective team work.

Even for an efficient health care team, Errors and unanticipated bad outcomes pose a threat to team work. Students understood that even at these times they have to support each other and come over the situation with unity.

Domain 4 - Communication:

Communication is one of the key elements in AETCOM and it is an important factor for proper functioning of any team including health care. Miscommunication significantly increases the risk of committing errors.

In a study done by Varma J, Prabhakaran A reported that 72% students considered that communication skills training was important for undergraduate medical students, 68.4% desired to undergo communication skills training.(8)

In present study communication domain, there is significant P value for all the statements.

Students learned about importance of communication and how miscommunication can lead to committing errors.

Domain 5 - Leadership

Good medical leadership is the key to building high-quality healthcare.(9)

Facing the challenges of modern healthcare, experts and organizations are demanding physicians have the higher capability for leadership.(10)

Students gained knowledge about qualities of a leader after AETCOM session by showing significant P value in 4 out of 5 statements.

Students acquired knowledge that effective leader should take enough time to discuss plan for each patient with their team members and sets high standards of accountability for themselves and their behaviour.

In comparison to other studies: Study conducted by Timsi Jain et al showed that AETCOM Module is effective in improving the communication skills of the medical students. In their study the overall scores obtained by using Kalamazoo essential element communication checklist improved significantly for each competency.(11) in the present study also there is significant improvement in all the domains

Conclusion

Along with individual skill and expertise good medical practice also require effective team work with good communication and understanding between healthcare team members.

This study clearly highlights that the AETCOM Module is effective in improving the functioning of an individual in a health care team along with enhancement of communication and leadership qualities in the medical students.

Challenges and recommendations

Although the application of AETCOM modules play an important role in changing the attitude of future medical professionals, we must ensure that in order to successfully implement the program, faculty development and training to teach and assess AETCOM competencies are the preliminary requirements.

Another challenge is allocation of training hours and faculty for AETCOM modules in the busy teaching schedules. Which should be specifically designed and implemented by the Medical Educational unit of the college

We recommend follow up studies to assess the long term impact of the AETCOM on medical students and detailed evaluation of other AETCOM modules.

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Conflict of interest - None

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