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Effectiveness of AETCOM (Attitude, Ethics & Communication) Module with Near Peer Learning in Postgraduate Students of Obstetrics and Gynaecology

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ABSTRACT

Background: There is an urgent need for ethics, attitude and communication skills in doctors at present time. Obstetrics and gynaecology is one of the mentally and physically challenging branches where effective patient communication skills hold great importance in patient satisfaction and better patient outcomes. Hence this study was conducted to explore the effectiveness of the AETCOM module in postgraduate students of obstetrics and gynaecology. To assess the effectiveness of implementing the AETCOM module with near-peer learning in postgraduate obstetrics and gynaecology education.

Methods: A total of 40 postgraduates of the Department of Obstetrics and Gynaecology, NSCBMCH Jabalpur were included in the study. The study duration was 6 months. After a pre-test OSCE conduction, AETCOM module training of postgraduates was done and post-test OSCE was conducted. Learner's gain was calculated.

Results: The average post-test score (79.26%) was significantly higher as compared to the average pre-test score (34.86%). Relative gain for OSCE stations 1 to 4 was 1.4, 1.34, 1.34 and 1.28 respectively which was highly significant. Similarly, the normalised gain for OSCE stations 1 to 4 was 0.69, 0.67,0.71 and 0.71 respectively which came significant with a p-value of <0.05. Feedback was taken from all the participating postgraduate students about the AETCOM teaching method and module. 90% of the students gave us encouraging positive feedback.

Conclusion: The incorporation of the AETCOM skills training module with near-peer learning and role-playing by simulated patients is a vital tool in the obstetrics and gynaecology postgraduate curriculum. It facilitates better learning, results in greater patient satisfaction and will help in raising empathetic doctors.

Key-words: Attitude, ethics, Communication skills, Near-peer learning, Teaching-learning methods

INTRODUCTION

Over the last two decades, it has been observed that there is a dire need for ethics, attitude and communication skills in doctors and all healthcare workers for enhanced patient satisfaction and better patient outcomes.

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The present generation of students is brought up in a smart, digitalized world where instead of communicating with friends or family, they prefer to stay on mobile phones or laptops, along with work pressure, family and peer pressure etc. has led to a lack of basic communication skills in these students.

Lack of communication skills in medical students contributes to behavioural changes like negativity, irritability, aggression, disappointment stress and increased dissatisfaction among patients.

Department of Obstetrics and Gynaecology is amongst those departments having the highest workload round the clock. The residents of Obstetrics and Gynaecology

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are required to go through a comprehensive training programme, which is mentally and physically challenging. Presently, residents are learning psychomotor skills very well but the behavioural training and communication skills to deal with stressful situations are lacking.

Effective communication skills between doctors and patients lead to enhanced patient satisfaction, better compliance with the treatment and improved health outcomes.[1] At the same time, changing a resident's attitude during residency will prevent malpractice and litigations against them in future.

It is expected that Obstetrics and Gynaecology professionals should have a positive attitude and the best communication skills to establish trust and provide emotional support to a pregnant woman in need. Thus, there is an urgent need to impart and cultivate good clinical practices with empathy in our postgraduate students.

Near-peer mentoring is a formal relationship in which more qualified students provide guidance and support to immediate junior students. It's a voluntary collaboration between colleagues of almost similar rank, one or more years senior to another with common academic interests.[2] The immediate senior may facilitate discussions, and provide personal support and feedback, while the senior clinician/faculty oversees the mentoring process.[2]

Hence this study was conducted to explore the effectiveness of the AETCOM (Attitude, Ethics and Communication) module with near-peer learning in postgraduate students of Obstetrics and Gynaecology at NSCB Medical College Jabalpur. The study aims to assess the effectiveness of implementing the AETCOM module with near-peer learning in postgraduate Obstetrics and Gynaecology education.

MATERIALS AND METHODS

The present study was conducted in the Department of Obstetrics and Gynaecology, N.S.C.B. Medical College and Hospital, Jabalpur (M.P.) for 6months (February to July 2024). This is a quasi-experimental study with a pre and post-test intervention OSCE. 40 postgraduate students of the first two years of obstetrics and gynaecology residency who gave consent participated in this study. Approval was taken by the Ethics Committee of N.S.C.B. Medical College, Jabalpur. All teaching faculties in the department were sensitized about the AETCOM module. 4 Assistant Professors and 4 senior Residents were trained and were actively involved in the conduction and assessment of pre and post-test OSCE.

The tool used to assess postgraduates was the Gap–Kalamazoo Communication Skills Assessment Form. This assessment tool includes the original seven competencies of the Kalamazoo Consensus Statement framework [3] i.e. build the relationship, open the discussion, gather information, understand the patient's perspective, share information, reach agreement, provide closure and two additional dimensions-demonstrates empathy and communicates accurate information. [4] The Gap–Kalamazoo Communication Skills Assessment Form contains Likert-scale and free-text fields, enabling it to provide absolute and relative scores for each aspect of communication and specific comments regarding strengths and areas needing improvement. [5]

Discussions for the development of AETCOM training module and OSCE stations for the project were held among the principal investigator and faculties involved. Validation of pre-training and post-training OSCE forms, and feedback forms for the students was done.

Pre-training- Four OSCE counselling stations along with standardised patient instruction guidelines were designed by the principal investigator and the faculties involved. Four senior residents were trained as standardised patients as per each OSCE station scenario. Four trained assistant professors rated all participating students' performance on the competencies and sub-competencies as per the Likert scale on the Gap–Kalamazoo Communication Skills Assessment Form. The maximum marks for each competency were five and the total maximum marks for all nine competencies were forty-five.

Training- After the initial pre-test assessment, the postgraduates were trained using the AETCOM module in the department. The AETCOM module was conducted for 8 hours over 4 working days for the study group.

Day 1: Introduction to AETCOM by interactive PPT-aided Lecture-2 hours was delivered by the principal investigator.

Day 2: Near-Peer learning by creating four groups of 5 postgraduate students of batch 2023 and their 5 postgraduate student guides of batch 2022.

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The discussion was done on the AETCOM module and pre-test OSCE stations (2 hours).

Day 3: Role plays by all four groups of postgraduate students were performed on how to counsel and communicate with the patients (2 hours).

Day 4: Feedback was given by involved faculties and the importance of the AETCOM module in PG training was re-emphasized by the principal investigator. A question-and-answer session was conducted (2 hours).

Post-training- The postgraduate students were again assessed using the same checklist and same OSCE stations after 2 weeks. Feedback was taken from postgraduate students about their experience after the project. Learner's gain was calculated for the intervention by using these formulas.

Absolute gain = (Post-test) – (Pre-test) score
Relative gain = (Post-test) – (Pre-test)/ (Pre-test)
Normalized gain = (Post-test) – (Pre-test)/ (Max marks - Pre-test).

Statistical Analysis- Descriptive and inferential statistical analyses were conducted using SPSS 21.0. Means, standard deviations, and percentages summarized demographic data, while paired t-tests or Wilcoxon tests compared pre- and post-intervention scores. Chi-square tests analyzed categorical variables, and correlations assessed relationships between skill domains. A $p<0.05$ was considered significant, with results presented through tables and graphs.

RESULTS

In 40 postgraduates who participated in the study, the average pre-test score of all OSCE stations was 15.69 (34.86%) and the average post-test score was 35.67 out of 45 (79.26%). Table 1 shows that the post-test scores were significantly higher as compared to the pre-test scores in each OSCE station.

Table 1: Pre-test and Post-test scores of all four OSCE stations.

OSCE Station	Pre-test Score (out of 45)	Pre-test score percentage	Post-test Score (out of 45)	Post-test score percentage
OSCE Station 1	15.18 ± 3.85	33.7%	35.23 ± 4.56	78.3%
OSCE Station 2	15.28 ± 3.44	33.9%	34.85 ± 4.52	77.4%
OSCE Station 3	16. 08 ± 3.72	35.7%	36.35 ± 3.93	80.8%
OSCE Station 4	16.25 ± 3.26	36.1%	36.28 ± 3.73	80.6%
Average of all stations	15.69 ± 3.56	34.86%	35.67 ± 4.18	79.26%

Table 2 demonstrates an assessment of the individual nine components of Gap–Kalamazoo Communication Skills Assessment Form. It was observed that students scored better in all competencies in the post-test as compared to the pre-test. Post-graduate students scored better in competency numbers C, E and I which are gathering, sharing and communicating information to the patients respectively. However, competency numbers A, G and H i.e. building relationships, understanding the patient's perspective and demonstrating empathy required improvement in pre-test observation. The score of these competencies numbered 'A', 'G' and 'H' improved in post-test results as shown in Table 2.

Table 2: Mean Pre-test and Post-test scores of individual competencies

Competency No.	Individual Competencies	Pre-test score (out of 5)	Pre-test score percentage	Post-test Score (out of 5)	Post-test score percentage
A	Build the relationship	1.45	29%	3.65	73%
B	Open the discussion	1.75	35%	3.75	75%

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C	Gather information	2.3	46%	4.5	90%
D	Understand the patient's perspective	1.6	32%	3.45	69%
E	Share information	2.05	41%	4.3	86%
F	Reach agreement	1.625	32.5%	3.5	70%
G	Provides closure	1.5	30%	3.95	79%
H	Demonstrates empathy	1.7	34%	4.25	85%
I	Communicates accurate information	2.25	45%	4.25	85%

The absolute gain, relative gain and normalized gain for each OSCE station were calculated as shown in Table 3. Relative gain for OSCE stations 1 to 4 was 1.4, 1.34, 1.34 and 1.28 respectively which was highly significant. Similarly, the normalized gain for OSCE stations 1 to 4 was 0.69, 0.67,0.71 and 0.71 respectively which came significant with a $p<0.05$. This shows remarkable improvement in the communication skills of postgraduate students by the AETCOM module (Table 3).

Table 3: Calculated absolute gain, relative gain and normalized gain for all OSCE stations.

OSCE Station	Absolute gain	Relative gain	Normalized gain	p-value
OSCE Station 1	20.05	1.40	0.69	0.001
OSCE Station 2	19.57	1.34	0.67	0.001
OSCE Station 3	20.27	1.34	0.71	0.001
OSCE Station 4	20.03	1.28	0.71	0.001

Feedback from all post-graduate students was taken by the Likert scale at the end of the post-test OSCE assessment as shown in Fig. 1. 85% of postgraduate students found this AETCOM module helpful and 90% agreed that lectures and the near-peer method helped in their learning. 87.5% of postgraduates wanted to attend more such sessions on learning communication skills.

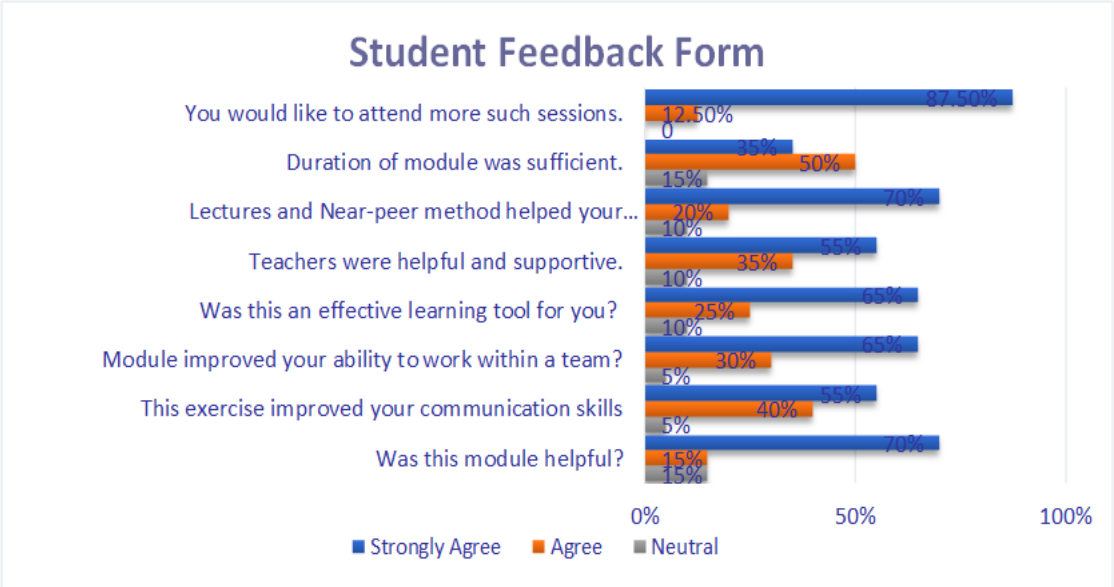

Fig. 1: Student's Feedback from observation by Likert scale

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DISCUSSION

The communication skills of an obstetrician who deals with an emotional and sensitive mother and her family in day-to-day practice are of utmost importance. In the present scenario patient dissatisfaction is related to uncertainty, lack of providing adequate information, and lack of explanation and feedback by doctors.[6] Empathetically understanding the patient's perspective and counselling leads to greater patient satisfaction, better patient outcomes and good adherence to treatment and follow-up. In this study, the mean post-test score of all OSCE stations improved significantly with a mean pre-test score of 15.69 (34.86%) to a mean post-test score of 35.67 (79.26%) out of 45. Similar studies done by Jain *et al.* [1] and Chavda *et al.* [7] showed significant improvement in post-test scores which were like our study.

On the assessment of individual competencies (A to I) of Gap–Kalamazoo Communication Skills Assessment Form, it was seen that postgraduate students did better in all competencies in the post-test as compared to the pre-test. Among individual competencies 'demonstrating empathy' (competency H) had a mean pre-test score of 34% which improved to 85% in post-test scores. Also, there was a significant improvement in 'building relationship' (competency A) with a mean pre-test score of 29% which improved to 73% in the post-test and competency D 'understanding patient's perspective' improved from 32% in the pre-test to 69% in post-test scores ($p<0.05$). 80% of the postgraduate students were not aware of the Kalamazoo communication skills assessment before the study and thus benefited after lectures and learning modules.

In the present study, the highest scores were obtained by postgraduate students for gathering information followed by sharing information and communicating accurate information. In a study conducted by Jain *et al.* [1] the mean pre-test and post-test scores for the elements of KEEC were found to be the highest for gathering information which was like our study. Whereas, a study by Tenglikar *et al.* [8] observed the highest mean scores for providing closure to discussion followed by building relationships. Learner's gain in this study was calculated and there was a high relative gain for all OSCE stations which was more than 1 and the normalized gain was 0.7 ($p<0.05$).

Feedback was taken from all the participating postgraduate students about the AETCOM teaching method and module. 90% of the students gave us encouraging positive feedback. They liked the near-peer learning method and simulated patient approach to improve their communication skills. This was like the study conducted by Rashid *et al.* [9]. A further explanation for positive outcomes of the near-peer learning method is 'cognitive congruence' which is a concept described by Lockspeiser *et al.* [10]. Near-peer teachers have a better appreciation of knowledge held by junior peers due to proximity of age and similar experiences and can therefore target teaching at an appropriate level [11,12]. In the present study, 90% of students agreed that this type of training improved their ability to work within a team and was an effective learning tool. 100% of students agreed that they would like to attend more such sessions on improving communication skills.

Although some students felt that the time for the training module was limited communication skills develop gradually and take time and effort to develop and incorporation into daily practice is essential to develop better communication skills. Feedback given by all participating faculty was positive and they all found the AETCOM module very helpful and near-peer learning an effective method for teaching communication skills. The simulated patient method was also found useful to demonstrate all competencies of the Kalamazoo essential checklist which forms the basis for developing attitude, ethics and communication skills in postgraduate students.

CONCLUSIONS

The present study emphasizes the effectiveness of the AETCOM Module in improving the attitude and communication skills of Obstetrics and Gynaecology postgraduate students. Gap–Kalamazoo Communication Skills Assessment Form is an important tool in effectively assessing communication skills. Regular training of each postgraduate batch in communication skills will help in raising empathetic doctors doing ethical practices which is likely to prevent malpractices and litigations against doctors shortly.

Routine incorporation of the AETCOM skills training module with near-peer learning and role-playing by simulated patients should be done in the Obstetrics and Gynaecology postgraduate curriculum. Training with the

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help of a structured module facilitates better learning. It helps students to face many real-life issues which they will encounter in future. Therefore, we should encourage routine incorporation of the AETCOM module in postgraduate curriculums to ensure the development of a healthy doctor-patient relationship.

CONTRIBUTION OF AUTHORS

Research concept- Kavita N Singh, Surekha Tayade
Research design- Kavita N Singh, Surekha Tayade
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Article editing- Deepti Gupta, Jyoti Sharma Bhardwaj, Archana Thakur
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