

# Developing competency in post-graduate students of anaesthesiology for taking informed consent for elective caesarean section

## Address for correspondence:

Dr. Kamla Harshad Mehta,  
1, Alap Society,  
Shantinagar, Usmanpura,  
Ahmedabad - 380 013,  
Gujarat, India.  
E-mail: drkamla2030@gmail.com

**Kamla Harshad Mehta, Vandana Saurin Shah, Kirti Dhirajlal Patel**

Department of Anaesthesiology, Smt. NHL Medical College, Ahmedabad, Gujarat, India

## ABSTRACT

**Background and Aims:** Post-graduate medical students (residents) generally lack effective communication skills required to obtain informed consent. The aim of this study was to assess role play and group discussion as teaching/learning tools for improving residents' knowledge on informed consent and competency in communicating while taking informed consent. **Methods:** This prospective, observational study was conducted on 30 anaesthesia residents. They were first observed while obtaining informed consent and their basic knowledge regarding communication skills was checked with a pre-test questionnaire. Then, lecture and group discussion were carried out to increase the knowledge base, and their knowledge gain was checked by the same questionnaire as a post-test. Communication skills were demonstrated by role play and residents were assessed by direct unobtrusive observation using a checklist. Feedback regarding effectiveness of programme was taken from students. Statistical analyses were done using Microsoft Office Excel and SPSS software. **Results:** Percentage gain was 122.37% for knowledge domain. For communication skills, mean  $\pm$  standard deviation for checklist was  $8.93 \pm 1.43$  before role play and it improved to  $17.96 \pm 1.29$  after role play. Regarding effectiveness of role play as a teaching/learning tool, 76.66% of residents said they strongly agreed and 23.33% of residents said they agreed. Likert scale for evaluation of programme was graded 4 or 5 by all residents. **Conclusion:** The knowledge and communication skills required for obtaining informed consent was improved significantly after role playing.

**Key words:** Communication, informed consent, role playing

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## INTRODUCTION

Van Ments (1989) defined role play as one particular type of simulation that focuses attention on the interaction of people with one another. It emphasises the functions performed by different people under various circumstances. Role play, which is based on the Knowles principles of adult learning, is widely used as an educational method for teaching communication in medical education.<sup>[1,2]</sup> In the medical field, whenever and wherever anaesthesia is needed, obtaining informed consent is of prime importance. Post-graduate residents lack effective communication skills that are required to obtain informed consent. They also have limited knowledge of various components of informed consent such as which risks must be disclosed and which need not.<sup>[3]</sup>

The consent process is strongly linked to the ethical principle of respect for autonomy. To respect the autonomy of our patients, we need to communicate with them, understand them, allay their fears and answer their questions. One should also know what is to be asked from the patients and how it should be asked by showing sensitive, supportive and non-judgemental attitude.<sup>[4,5]</sup> The consent process also gives the

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anaesthetist a chance to promote awareness regarding the skills, training and roles of our profession.<sup>[5]</sup> Lack of informed consent can reinforce a claim of medical malpractice or serve as an alternative point of attack in malpractice cases.<sup>[6]</sup> Additional safeguards are required in incapacitated and minor patients.

Role play is an educational method for learning about communication. It was created and implemented based on Knowles principles of adult learning. It promotes active learning and imparts knowledge, attitude and skills in students.<sup>[7]</sup>

This study was undertaken as an experimental effort to introduce role play as a teaching/learning tool for improving the residents' knowledge on informed consent and competency in communicating while obtaining informed consent. We have selected caesarean section surgery because it is a special procedure in which one has to take care of two lives, the mother and the foetus while obtaining informed consent. High-quality clinical information is now a clear requirement as shared decision-making is frequently encouraged.<sup>[8]</sup>

## METHODS

This prospective, observational study was designed and conducted during a period of 3 months from August 2015 to October 2015 after taking the Institutional Review Board approval. A total of 30 anaesthesia residents (1<sup>st</sup> year) were included in the study. Their informed consent for participating in the study was taken. The following documents were prepared and approved by the departmental faculty members: (i) pre- and post-test questionnaires, (ii) a checklist for observation and assessment of role play and (iii) a script for role play was prepared in the vernacular language. To maintain uniformity in script of role play, we selected the same surgical (caesarean section) and anaesthetic procedure (spinal anaesthesia). Standardised patients were used because they were likely to be more reliable and may tolerate more students than real patients. They are also able to assist in both teaching and evaluation of students.<sup>[7]</sup> Pre-test was performed with prepared the questionnaire to test knowledge of basic theory, knowledge of informed consent and communication skills of students. Then, lecture and discussion were carried out to impart knowledge. After lecture and group discussion, post-test was conducted with the same questionnaire. For assessing basic communication skills, all residents were directly observed unobtrusively with a checklist of 20 points while taking informed

consent with standardised patients. Their checklist score was recorded. Then, role play of 15–20 min was demonstrated in small groups of five residents by the authors. One of the authors was playing the role of patient and other one was playing the role of resident doctor. Group discussion after demonstrating role play was carried out. Then, the same residents were again directly observed unobtrusively with the same checklist of 20 points, while taking informed consent with standardised patients.

Evaluation of the programme was done with feedback questions given to the residents. Data were collected and computed into Microsoft Office Excel 2007. Statistical Analysis was analysed with IBM SPSS Statistics for Windows, Version 19.0. Armonk, NY: IBM Corp. to compare the responses. Percentage gain was calculated using formula of post-test – pre-test/total marks. The results obtained were presented in the form of frequencies and percentages. Paired *t* test was used to compare the pre test and post test score. Chi-square test was applied to have comparisons between qualitative responses, and *P* < 0.05 was considered statistically significant. Analysis of feedback given by residents for effectiveness of role play and programme was done with Likert test and expressed in percentage.

## RESULTS

All participants were given knowledge of informed consent and effective communication by lecture and group discussion. Residents' knowledge about informed consent and effective communication increased significantly. Percentage gain for knowledge domain was 122.37% [Table 1].

There was improvement in communication checklist score after demonstration of role play [Table 2].

There were a total of 20 points in a checklist for communication skills, but only 10 points which showed more than 75% improvement were analysed in detail [Table 3]. It shows that before role play demonstration, only 9.99% of students had introduced themselves and 6.66% greeted the patients, which was improved to 100% after role play demonstration. Similarly, explanation of type, technique of anaesthesia and complication of procedures and expressing thanks to the patients also improved from 96.66% to 100%.

According to Likert scale, 76.66% of students strongly agreed that role playing is an effective teaching and

learning tool for communication skills. The role play exercise was found to be entertaining and 93.33% enjoyed participating in it. All the residents were fully satisfied with this educational role play session and they were very keen to attend such type of sessions in future [Table 4].

## DISCUSSION

It had become apparent during informal discussions with the faculty members that residents lack basic skills necessary to communicate with the patients. This deficiency of basic skills is usually observed during explaining a patient's condition to his relative using simple language, giving advice to a patient getting discharged, breaking bad news and taking an informed consent. As a result, there is a breakdown of the doctor-patient relationship resulting in increasing dissatisfaction among patients.<sup>[9]</sup>

| Statistical parameters | Pre-test   | Post-test  | P      |
|------------------------|------------|------------|--------|
| Mean±SD                | 10.36±2.22 | 27.56±1.54 | <0.001 |
| Percentage gain        |            | 122.37     |        |

SD – Standard deviation

| Statistical parameters | Before demonstratio | After demonstration | P      |
|------------------------|---------------------|---------------------|--------|
| Mean±SD                | 8.93±1.43           | 17.96±1.29          | <0.001 |

SD – Standard deviation

| Points of checklists   | Before demo (n=30) (%) | After demo (n=30) (%) |
|--|------------------------|-----------------------|
| Introduced herself/himself with a smile                      | 3 (10)                 | 30 (100)              |
| Greeted the patient  | 2 (6.66)               | 30 (100)              |
| Had open posture   | 6 (20)                 | 26 (86.66)            |
| Sat close to the patient                                     | 4 (13.33)              | 30 (100)              |
| Gave procedural information                                  | 3 (10)                 | 30 (100)              |
| Explained type and technique of anaesthesia                  | 2 (6.66)               | 30 (100)              |
| Explained the all possible complications of technique        | 2 (6.66)               | 30 (100)              |
| Showed compassion by using warm caring and respectful manner | 4 (13.33)              | 29 (96.66)            |
| Acknowledged concern   | 5 (16.67)              | 29 (96.66)            |
| Expressed thanks   | 1 (3.33)               | 29 (96.66)            |

| Questions  | Likert scale           |               |              |                |                         |
|--|------------------------|---------------|--------------|----------------|-------------------------|
|  | 1<br>Strongly disagree | 2<br>Disagree | 3<br>Neutral | 4<br>Agree (%) | 5<br>Strongly agree (%) |
| Informed consent is an important learning topic for practice of anaesthesiology  | 0                      | 0             | 0            | 7 (23.33)      | 23 (76.66)              |
| Role playing is an effective teaching and learning tool for communication skills | 0                      | 0             | 0            | 7              | 23                      |
| How far you are satisfied with this programme?                                   | 0                      | 0             | 0            | 6              | 24                      |
| Role playing exercise entertaining and you enjoyed participating?                | 0                      | 0             | 0            | 2 (6.66)       | 28 (93.33)              |
| Would you like to participate in other role playing scenarios?                   | 0                      | 0             | 0            | 5              | 25                      |

In our institute, there are no formal sessions conducted for imparting communication skills in medical curriculum despite these being essential core clinical skills. Hence, this project was carried out to have an intervention that will enhance communication skills as well as to provide an appropriate assessment tool.

Role play is widely used as an educational method for learning about communication in medical education. Although role play is regularly used to develop communication skills in medical students,<sup>[1,2,10-13]</sup> there are few published papers that evaluate role play as an educational method.<sup>[13]</sup>

This study will not only embark on the utility of role play as a learning tool in enhancing the communication and behavioural skill (affective domain) of the medical students with the patients, but it will also analyse its effectiveness in other important domains such as the capacity of the students to enhance and reinforce their knowledge of medicine and its application in various real-life situations (cognitive domain) and their examination skills (psychomotor domain).<sup>[2]</sup>

In the present study, the mean score of checklist during the role play before demonstration was low which increased significantly after demonstration. It showed that competency of residents improved after role play. Effectiveness of role play is increased when it is properly executed.<sup>[14]</sup>

Likert scale, a psychometric scale used in questionnaire allowed respondents to specify their level of agreement or disagreement. We used 5-point scale for feedback of programme and it was graded 4 or 5 by all the residents. They also enjoyed script of role play and requested for more such type of educational programme for their better future anaesthesia practice.

Hausberg *et al.* developed and evaluated undergraduate medical students training programme for enhancing their communication skills. In this study, vast majority of participants rated communication skills essential for their future professional careers, but they also noted that this area revealed the most striking deficits.<sup>[15]</sup>

Manzoor *et al.* had studied medical students' perspective about role play as a teaching strategy in community medicine and they also found that 59 participants (89.4%) found role plays interesting and 49 (74.2%) wanted to incorporate role plays as a part of curriculum. Fifty-six of the participants (88.9%) agreed that role plays improved their communication skills.<sup>[4]</sup>

Consent, either for a medical procedure or operative procedure, is now an integral part of the medical profession. Tacit consent is no longer considered acceptable.<sup>[3,5]</sup> There is a consensus that patients should be informed about the procedures they are to be subjected to, that is, why the topic of informed consent was selected for communication skills and role play.

Now, it is legally well established that everyone of sufficient age and sound mind has the right to decide what is to be done to his or her body. To take the right decision, effective communication between the patient and treating doctor is essential. In a survey which included 673 medical students in the 1<sup>st</sup>, 3<sup>rd</sup> and 4<sup>th</sup> years, it was found that the attitude towards the doctor-patient relationship became less patient-centred and more doctor-centred or paternalistic in the later years of medical school, highlighting a need for training in patient-centred communication skills.<sup>[9]</sup> The first description of communication training emerged in the early 1970s and the subject is now well established in most medical schools across the world.<sup>[16,17]</sup>

## CONCLUSION

Role playing is accepted as an effective teaching/learning tool. The knowledge on informed consent and communication skills improves significantly after role playing.

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## Conflicts of interest

There are no conflicts of interest.

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