

Original Research Article

Role Play as a Pedagogical Strategy for Cultivating Empathy

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ABSTRACT

Background: Empathy is considered as the cornerstone of exemplary patient care and training medical graduates in empathy is the most challenging task for the medical educators. The traditional teaching method lacks strength in implementing this skill into the receivers.

Aims and Objectives: To explore role play as a pedagogical strategy to provide an immersive learning experience for medical students to capture empathetic principles.

Materials and Methods: This observational study was performed in a medical college of South India, among Phase I students. Jefferson scale of empathy was used to quantify empathy level among the participants and following which, they were asked to conduct role play sessions enacting various case scenarios. Post role play session, feedback was taken from the participants as well as the faculty. The empathy scores and the components were compared among males and females using an independent sample t-test and ANOVA respectively.

Results: The mean empathy score of the participants were above the cut off points (119.42 ± 9.768). There was no significant difference in total or component wise empathy score among genders, although “putting yourself into patient shoes” was significantly lower when compared to other components (5.93 ± 0.71 , 6.29 ± 0.52 , 4.53 ± 1.35). From the students and teachers’ perspective, role play was an effective method in learning empathy.

Conclusions: The facilitators reported organizing role-play sessions to be labor intensive but the insightful reflection of the students far outweighs the effort. In this backdrop, role-play can be considered as an effective teaching method.

Key words: Empathy, Medical education, Role play

INTRODUCTION

The goal of competency based medical education (CBME) is to produce an Indian medical graduate (IMG) who is envisaged as a doctor playing multiple roles - clinician, communicator, leader, professional and lifelong learner.^{1,2} This is possible only by bringing about a change in the teaching and learning methods in medical education. During the training phase of a medical student emphasis is given to acquiring knowledge and skills which are evaluated at

various stages.³ The recent addition to competency-based medical education is the emphasis on soft skill development through AETCOM sessions.⁴ Exemplary patient care is ensured not just by providing the right treatment but also focusing on the manner in which the treatment is delivered.⁵ Empathy is considered as the cornerstone of exemplary patient care and training medical graduates in empathy is the most challenging task for the medical educators.⁶⁻⁸ Training in empathy extends beyond the theoretical knowledge and demands a fusion of cognitive, affective and behavioral

skills.⁹ The traditional teaching methods like lectures, case based, problem based learning etc. will fall short in instilling the emotional and interpersonal dimensions of empathy. Hence to bridge this gap an immersive learning experience is essential.

The present study aims to explore role play as a pedagogical strategy to provide an immersive learning experience¹⁰ and act as a dynamic platform for medical students to embody and internalize empathetic principles. We aim to provide educators with insights and evidence that may redefine the narrative of teaching abstract concepts, particularly empathy, in medical training. The outcomes of this journey could reshape curricular strategies, paving the way for a new era in medical education, one where empathy is not just taught but lived.

MATERIALS AND METHODS

This study was performed in a medical college, among Phase I students. After receiving ethical clearance from the Institutional ethics committee (77/23/IEC), one hundred first-year medical students were recruited and randomly divided into 20 groups, each comprising 5 students. The activity was conducted in four different halls, and each hall had five groups of students. In each hall, we gave five different clinical scenarios, focusing on diverse aspects of patient experience. These included a routine medical checkup for a woman, a case of sudden myocardial infarction, an elderly patient diagnosed with chronic disease, a woman seeking help for stress-related issues, and a person diagnosed with carcinoma. This ensured that every group got to work on a unique patient case.

Based on the case scenario, each group had to draft a script and assign roles for their team members accordingly. A one-week time frame was allotted for the class to organize and practice the scenes, ensuring that every member had an active role in the role-play exercise. This approach aimed to guarantee full participation and engagement among all students. The empathy levels of the students were assessed using Jefferson scale¹¹ (after obtaining the license) - a self-administered validated questionnaire that consists of 20 statements. The response to each statement is in Likert style with seven points, starting from strongly agree to strongly disagree. 10 statements were scored directly giving 1 point for strongly disagree and 7 points for strongly agree and 10 statements were reversely scored. These statements were divided into 3 components: 'perspective taking', 'compassionate care' and 'standing in the patient's shoe' consisting of 10, 8 and 2 statements respectively. The scores were calculated taking the sum of all the scores and the maximum score obtained is 140. The maximum score denotes the highest level of empathy. The first part of JSE tool collected the personal details of the participant like age, gender, specialty they wanted to pursue after graduation - categorized into 'people oriented' that includes, internal

medicine, psychiatry, pediatrics, obstetrics and gynecology, family medicine, then 'procedure oriented' that consist of surgical specialties and 'Undecided' where students have not decided about their area of interest.¹¹ Subsequently, during a 2-hour session, each group performed role play in separate halls, presenting their clinical scenarios in front of two facilitators. Role play session was followed by debriefing sessions which enabled students to navigate the complexities of emotion and communication inherent in different case scenarios, fostering a deeper understanding of the patient experience. To motivate the students, awards were presented based on their performances, reinforcing the importance of empathy in healthcare. Following these sessions, feedback and insights were gathered from both students and faculty involved in the role-play exercises using a structured questionnaire (different for students & faculty).

Statistics: The Kaiser-Mayer Olkin (KMO) and Bartlett's test was used to test the sample adequacy and it was found sufficient. The normality of the data was checked using the quantile-quantile (QQ) plot and it was normally distributed. The empathy scores and the components were compared among male and females using an independent sample t test and an analysis of variance (ANOVA) respectively. To examine the relationship between gender and specialty plans, ANOVA was used. The data was analyzed using SPSS software version (25.0) and $p < 0.05$ was considered significant.

RESULTS

The analysis was done in two levels, first decoding Jefferson's empathy scale followed by the perspective of students and faculty regarding the role play as a strategy to teach empathy. The study population included a total of 99 students of the age group of 18 - 22 years (male = 31, females = 68). Descriptive statistics for the scores obtained on the Jefferson empathy scale revealed a mean score of (119.42 ± 9.768) . The empathy scores are summarized in Table-1.

Table-1: Mean empathy scores among male and female

Parameters	Male (n=31)	Female (n = 68)	p value
Overall empathy score	118.26 \pm 8.08	119.96 \pm 10.46	0.425
Compassionate care	5.79 \pm 0.74	5.9 \pm 0.70	0.18
Perspective taking	6.27 \pm 0.47	6.3 \pm 0.54	0.78
Putting yourself into patients' shoes	4.58 \pm 1.30	4.5 \pm 1.37	0.86

Different components of empathy which are perspective taking, compassionate care, putting yourself into patients' shoes were analyzed and found that compassionate care has maximum mean score compared to others (Overall Mean \pm SD = 5.93 ± 0.71 , 6.29 ± 0.52 , 4.53 ± 1.35 respectively, figure not shown). The average score obtained for the component 'putting yourself into patients' shoes' was the least when compared to others. There were no significant differences between genders when the scores are compared component wise (Table-1).

Regarding the choice of specialty, the participants would like to pursue, 44.4% planned to pursue medical specialties, 23.2% surgical specialties, and 32.3% were undecided. There was no significant difference in specialty plans based on gender ($p = 0.822$, table not shown).

The perspectives of students and faculties regarding the role play sessions have been displayed in Figures 1 and 2 respectively.

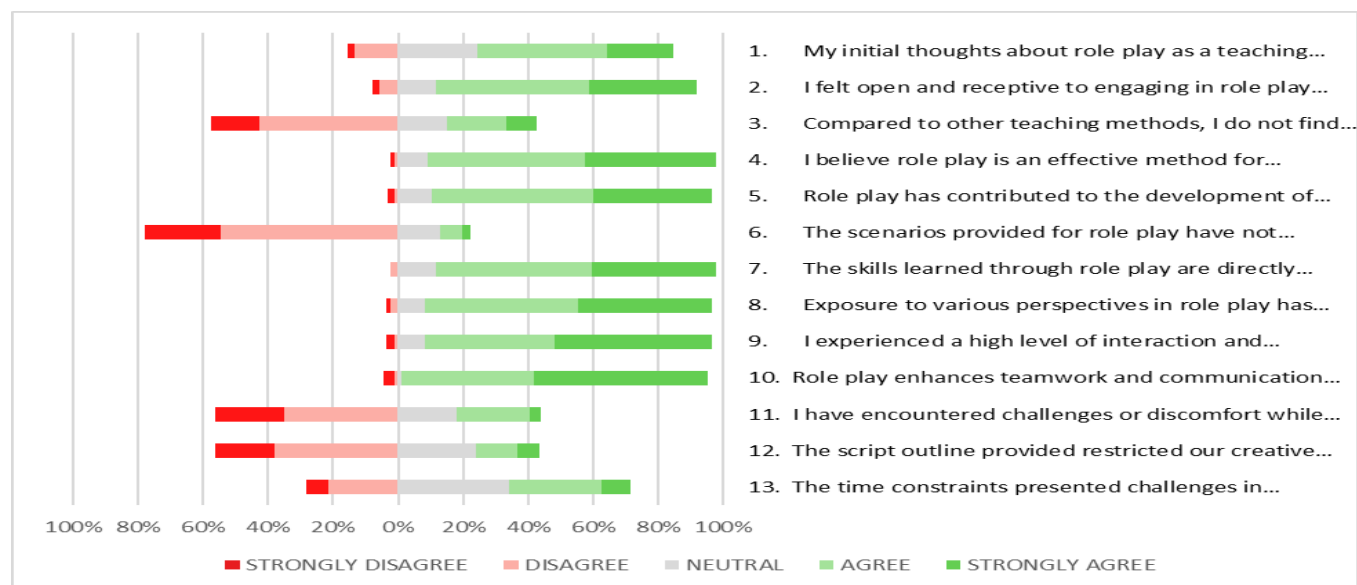


Figure-1: Students' perspective on role play

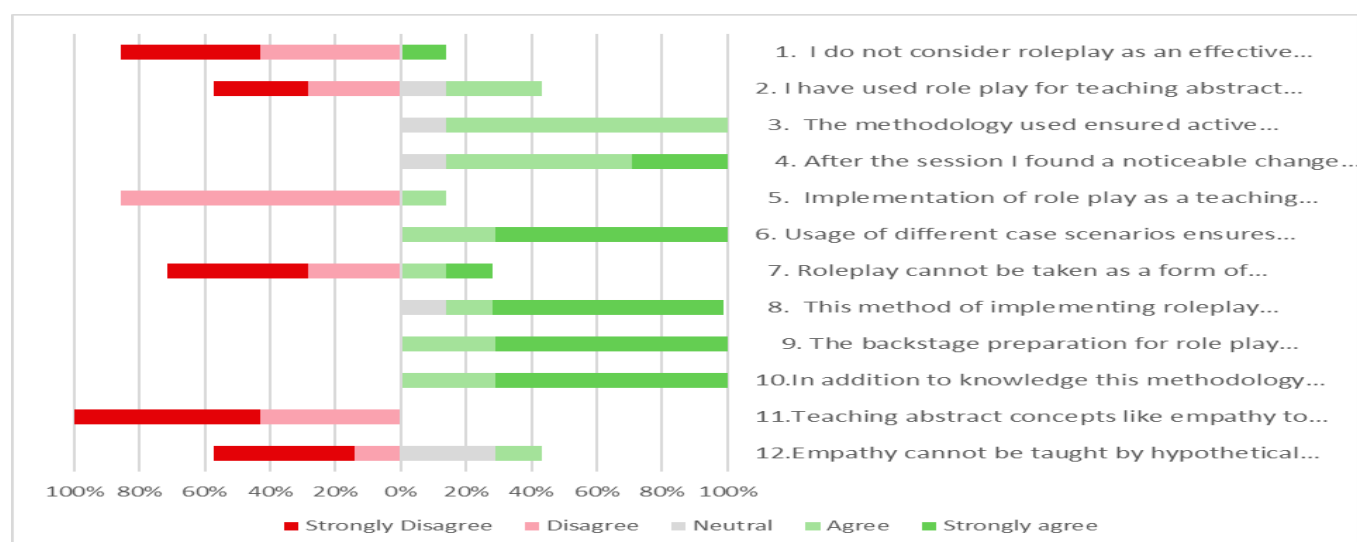


Figure-2: Perspective of faculty members on role play

Few responses to open ended questions were as follows:

- “This role-play not only made me better at communicating with my teammates, it also made me bring out a few skills that I thought had no place in a medical college.
- This role play made me delve into the characters' emotions better. It was a wonderful experience.”
- “It helped us to present good team work and develop better interactive skills”.

DISCUSSION

Role play has been used as a pedagogical tool in all sectors of education, from law to medicine, from business to psychology and research on effectiveness of this method dates back to the 1970s.¹¹ The three major learning domains, affective, cognitive and psychomotor, can all be addressed effectively by using role play pedagogy^{13,14} but the manner in which roleplay is practiced in educational settings sets limits to the effectiveness of this tool in teaching abstract concepts. Traditional role-play sessions involve a group of students presenting a scenario while the rest serve as audience. This inadvertently groups students into active and passive participants resulting in the active participants reaping primary benefits of engagement while the passive group may view the session as entertainment with no substantial change in their perspectives.

The present study was conducted during an AETCOM session aimed at teaching empathy to first year medical students. This involved the assessment of empathy in first year medical students using the Jefferson empathy scale (Table-1). The participants of our study fared well in overall empathy, but research studies in this aspect have both supporting and opposing findings.^{15,16} On exploring further into the subcomponents of empathy it was found that though the students fared well in the empathy scale,” putting yourself in another’s shoe” emerged as a weak point for the majority of the students. On enquiry into their preferred specialty, majority leaned towards medical specialty which is a people-oriented area, hence signifying the importance of empathy and communication skills training with focus on cultivating the capacity for “putting yourself in other shoes”. During the AETCOM sessions training on empathy, to give students an immersive learning experience it was decided to conduct role play sessions. The four types of role-plays like structured role-play (with predefined scenarios), spontaneous role-play (improvised situations), guided role-play (facilitator-led discussions), and observational role-play (learning by observing others), were discussed in detail and each role play offered unique benefits in shaping behavior through active participation and reflection.¹⁷ Based on the discussion it was decided to adopt a mixed method of role play for our sessions which ensured that there were no passive participants. Every student had to play a role as designed by the different case scenarios ensuring active learning. Observational role-play

i.e. learning by observing, as when one group performed other groups observed. Hence, they were also engaged as passive learners. Following the role play session facilitator led discussions were held.

Students were also engaged in reflective writing about their experiences during role play sessions and the majority of the students found the session to be inspiring and opening new insights into the dynamics of patient doctor relationship. Students also commented that they were initially apprehensive and unsure of how effectively they could immerse into the roles assigned but as the process unfolded, they could mold in and relate to the characters assigned to them. The faculties expressed favorable opinion of role play as a pedagogical tool though the planning, preparing scenarios and guiding the students was a time consuming and tedious process. The perspectives of both students and faculty underscores the effectiveness of incorporating role play as a pivotal component in teaching abstract concepts like empathy, communication skills etc. Research exploring the effectiveness of different teaching strategies are present and many have positive comments on role play effectiveness but research on the effectiveness of different methodologies regarding role plays are limited.¹⁸

The methodology adopted in the present study provided each participant with an immersive learning experience hence demonstrated the potential of role play as an effective pedagogical tool in fostering empathetic understanding of patient care among future healthcare professionals.

There are few limitations in this study. We have not assessed the empathy scale after the role play session to evaluate the effectiveness, though, the students' perspectives on role play as a teaching method has been evaluated. Based on the pre assessment scores, the majority of the students' empathy level score was above the cutoff point, which implies they have good empathy. Limitations also include scarcity of literature on the types of role-plays or effectiveness on different types of role-plays.

CONCLUSIONS

Our study concludes that despite the time-consuming nature of the process, if instructors invest the necessary time for preparation, the benefits of utilizing role play in teaching empathy can far outweigh the effort.

What was already known?	What information does this study add to existing knowledge?
<p>Research on the effectiveness of various teaching methodologies like role play, group discussions, lectures etc. to train on medical students are present.</p> <p>Effective AETCOM training among medical students is challenging.</p> <p>Various strategies of implementing role play for equal participation of all the students is less explored.</p>	<p>Role play sessions can be implemented effectively, ensuring equal participation of all the students.</p> <p>Though AETCOM training sessions are tedious tasks to convey effectively, role play is beneficial which outweighs the effort.</p>

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