

# ROLE PLAY AS A LEARNING AND TEACHING MODALITY AND ITS EFFECTIVENESS IN IMPROVING THE COMMUNICATION AND CRITICAL THINKING SKILLS OF MEDICAL STUDENTS

Jibrán Umar Ayub Khan<sup>1</sup>, Brekhna Jamil<sup>2</sup>, Farooq Ahmed<sup>3</sup>, Umar Ayub Khan<sup>4</sup>, Ayesha Qaisar<sup>5</sup>

<sup>1</sup>Department of Gastroenterology, Kabir medical College, Peshawar - Pakistan

<sup>2</sup>Department of Medical Education, Khyber Medical University, Peshawar - Pakistan

<sup>3</sup>Department of Medical Education, Khyber Medical College, Peshawar - Pakistan

<sup>4</sup>Association of rehabilitation of physically disabled, Peshawar - Pakistan

<sup>5</sup>Department of Physiology, Khyber Medical College, Peshawar - Pakistan.

## ABSTRACT

**Objectives:** To identify the importance of role plays as a learning and teaching modality and find out its effectiveness in improving the communication and critical thinking skills of students.

**Material and Methods:** This Quasi-Experimental study was conducted in Kabir Medical College Peshawar that is a private sector medical institute situated in the north of Peshawar, Pakistan. Probability technique of simple random sampling was used to select 100 students from Year-3, and role plays sessions were conducted by dividing the students into 2 groups with 50 students each. Group 1 performed the role plays followed by feedback. Group 2 was given brief video demonstration of a breaking bad news sessions only and then asked to give their feedback. Data was collected from both groups by filling a self-designed questionnaire that was previously pilot tested amongst 7 students. The data was analyzed using SPSS version 23. Chi-square test was used to compare the responses of two groups with a P value of less than 0.05 was considered significant.

**Results:** In group 1, 47 out of 50 students (94%) and in group 2, 32 out of 50 students (64%) admitted that role-play can improve critical thinking and communication skills ( $p=0.02$ ). Regarding role plays as a teaching modality, 46 out of 50 students (92%) in group 1 and 28 out of 50 (56%) in group 2, rated it to be effective ( $p=0.02$ ). Considerably small number of students had any previous participation in role plays, 14 in group 1 and 15 in group 2 ( $p$  value=0.21).

**Conclusion:** Role plays as a teaching and learning modality is an innovative style of teaching in improving the communication and critical thinking skills of students.

**Keywords:** Role play, Teaching methods, Communication skills.

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## INTRODUCTION

Role plays have gained popularity in medical education as teaching and learning tool for imparting knowledge, skills and attitudes<sup>1,2</sup>. Role play and debates have roles and applications in medical education for not only instilling solid critical thinking abilities in students but also enhance their communication skills<sup>3</sup>. Excellent communi-

cation skills come into play especially in difficult situations such as breaking bad news, withholding the treatment, discussing "Do not attempt resuscitation", and many other situations, especially in critically ill patients and their relatives.

Role play gives a platform for students to come out of their normal roles as students and exhibit some essential roles which they may be assigned in their future professional careers. With increasing demands of modern day medical education, it is imperative for a doctor to have empathy, supportive attitude and sincere non-judgmental behavior towards patients. The incorporation of role plays in undergraduate curriculum is of paramount importance not only to acclimatize students with this teaching methodology but also get them to think out of the box as they perform the scripts of real life scenarios<sup>4</sup>. Cooperative

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Correspondence

**Dr. Farooq Ahmed**

Director Medical Education

Khyber Medical College, Peshawar - Pakistan

**Email:** drfarooqahmed43@gmail.com

**Cell:** +92-313-3799901

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Learning (CL students learn by reinforcing teamwork as one student takes the role of doctor and other being the patient. The training of students through role plays is considered to be a gateway to self-directed learning<sup>5</sup>.

Engaging students in role plays not only serves the sole purpose of active learning but also follow the true principles of adult learning formulated by Knowles<sup>6</sup>. This paper presents a comprehensive theoretical model. The proposed model integrates self-management contextual control. It is not a unidirectional way of transferring knowledge in which students are silent spectators and teachers take the role of reading through slides without checking the retention of knowledge of learners<sup>7</sup>.

Till now, role plays are suggested by the curriculum designers to be inculcated in undergraduate and postgraduate medical curricula, but no study regarding its effectiveness has been performed in our country in the context of evaluating its impact on critical thinking abilities and communication skills in the minds of learners. The rationale of this study was to identify the importance of role plays as a learning and teaching modality and find out its effectiveness in improving the communication and critical thinking skills of students of Kabir Medical College.

**MATERIALS AND METHODS**

This quasi-Experimental study was conducted in Kabir Medical College Peshawar that is a private sector medical college for undergraduate students of MBBS and BDS. Probability technique of simple random sampling was used to select 100 students from Year-3 and role plays were conducted by the division of students into 2 groups. There were 50 students in each group. Groups 1 performed the role plays practically and then were asked to give their feedback. Group 2 was given brief demonstration only and then asked to give their feedback. Data was

collected with the help of a self-designed questionnaire from both groups that was previously pilot tested amongst 7 students. The data was analyzed using SPSS version 23. Chi –square test was used to compare the responses of two groups. P value of less than 0.05 was considered significant.

**RESULTS**

Amongst 100 students (table-1), 63 were males and 37 were females with mean age of 21 years (SD=1.3). Responses were obtained regarding the students' views for conduction of role-plays in undergraduate medical education and training. A majority of them agreed that role plays are an effective teaching strategy for improving critical thinking and communication skills of students. In group 1, 47 out of 50 students (94%) and in group 2, 32 out of 50 students (64%) admitted that role plays can improve critical thinking skills (p=0.02). Almost same results were found for the improvement of communication skills as well (see table-2).

**DISCUSSION**

Role-plays are powerful tools of instruction in medical education by enhancing the mutual interaction between students and teachers. A role-play can enable the learner to deal ambivalent professional situations. Role play is an effective intervention that can contribute to increase all the domains of learning. The tendency of it to engage emotions adds to its uniqueness. Role-plays are

**Table 1: Gender distribution of students in each group.**

Gender	Group-1	Group-2	Total
Male students	32	18	50
Female students	31	19	50
Total	63	37	100

**Table 2: Gender distribution of students in each group.**

Questionnaires	Group-1		Group-2		P-value
	Yes	No	Yes	No	
Have you participated in any role play previously?	14	36	15	35	0.21
Do you feel role plays help in Improving communication skills?	46	4	32	18	0.02
Did you feel your critical thinking skills have improved after role play?	47	3	32	18	0.02
Do you find role plays useful?	45	5	33	17	0.02
Do you feel role play as an effective teaching modality?	46	4	28	22	0.02
Do you feel role plays are effective teaching modality as compared to lectures?	43	7	18	32	0.68
Are role plays effective for self-directed learning?	46	4	10	40	0.04
Will you recommend role plays as a teaching modality for future teaching?	40	10	27	23	0.09

predominantly used in teaching sensitive subjects such as end of life care decisions, breaking bad news, and dealing with complex clinical scenarios<sup>9</sup>. Having relevant communication skills in palliative care is of enormous importance and this can be learnt through role plays. Role play is used as an effective teaching strategy if this is properly structured and formulated on the basis of meeting objectives of the course.

A study was conducted to see the effectiveness of role-plays in teaching genetic counseling and was found that most of the study population of medical graduates agreed that role-play was effective in teaching them the art of counseling<sup>9</sup>. Most participants came to a unanimous conclusion that role play helped them to comprehend the indications for referral for genetic counseling. A vast proportion of participants (76.7%) recommended the introduction of role plays in curriculum. Another study highlighted the importance of role play and debates for promoting critical thinking of the students and in addition improving their communication skills during problem based learning sessions<sup>10</sup>. While comparing both the above modalities mentioned, debate was considered to be more effective in creating new horizons of thinking as compared to role play.

Another study conducted at Manipal College of Medical Sciences, Pokhara, favored the results of our study in which participants felt that the skills gained with the help of role plays will be instrumental in future professional careers<sup>11</sup>. Should do so in a sensitive and caring manner and convey a supportive, non-judgmental attitude to their patients, especially with regard to sexual and reproductive issues. The Manipal College of Medical Sciences (MCOMS) study showed that 90.8% of the participants agreed it to be an effective mode of information transfer.

Our study findings suggested role play as an effective strategy for increasing the communication and critical thinking skills of students, and paves way for introducing it formally in undergraduate medical and dental education curriculum. By applying this technique, teachers will be able to make their teaching style more innovative and interactive rather than old style of lecturing. This will also increase the confidence of students to a colossal extent.

Role play was rated higher than compared to lectures in imparting the knowledge and skills of breaking bad news in our study in people who were trained in role plays. This adds to the existing research which emphasize the role of this teaching modality in improving communications skills<sup>12</sup>. A study conducted in Germany emphasized the role of role plays sessions in improving the technical skills of medical students<sup>13</sup>. Another local study conducted on undergraduate medical students about their perception of role plays in Public health and Community medicine training revealed similar results as ours<sup>14</sup>. Emotions are an integral part of role plays, and therefore

are considered to be an important tool for self-directed learning<sup>15</sup>. Our interventional group was of the opinion that role plays improve self-directed learning which is mostly related to the emotional component.

This study was limited to one center and to only medical students. Further studies of this kind with validated data collection tools are needed to help us generalize the results.

## CONCLUSION

Role plays as a teaching and learning modality is an innovative style of teaching in improving the communication and critical thinking skills of students.

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#### **AUTHOR'S CONTRIBUTION**

Following authors have made substantial contributions to the manuscript as under

**Khan JUA:** Conceptualized the idea, collected data and wrote introduction and results

**Jamil B:** Helped in concept, reviewed the article

**Ahmed F:** Reviewed the whole article, did analysis of data and wrote discussion

**Khan UA:** Reviewed the article, and helped in data collection.

**Qaisar A:** Data collection and manuscript writing.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.