

# Medical Students' Perspective About Role-Plays As A Teaching Strategy in Community Medicine

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## ABSTRACT

**Objective:** To assess the students' perspective about role-plays conducted as a teaching methodology in community medicine.

**Study Design:** A quasi-experimental study.

**Place and Duration of Study:** Department of Community Medicine at Fatima Memorial College of Medicine and Dentistry from July to November 2010.

**Methodology:** A probability technique of simple random sampling was used to collect 63 students from the third and fourth year MBBS who were randomly distributed in five sub-groups. They were variously ascribed the roles of obsceners, participants and helpers. A questionnaire was distributed to collect student's responses. The data was analyzed on SPSS version 17 to compare the responses. Chi-square test was applied and p-value was fixed at < 0.05 as significant.

**Results:** Sixty-three students were selected as participants of this study in which 46 belonged to the fourth year MBBS class (73%) and 17 were third year MBBS students (27%). There were 13 male (20.6%) and 50 female (79.4%) students. Role-plays were identified as most effective method of teaching (n = 25, 37.9%) followed by lectures (n = 17, 25.8%, p = 0.054). Fifty-two students (78.5%) admitted that role-plays improved their knowledge of the subject, 55 (84.6%) said that it will help them in their clinical performance. Fifty-nine 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. Twenty-one participants (31.8%) believed that it helped them in making acquaintance with the local situation. Forty-six students (76.7%) identified role-plays as a feasible way of andragogy (p = 0.005) and 48 (76.2%) said that it provoked critical thinking about the subject (p = 0.038). Fifty-four students (85.7%) admitted that their attention span was better in role-plays as compared to lectures (p = 0.047).

**Conclusion:** Role-plays were well accepted by the students as an effective teaching methodology and can be incorporated as a part of teaching strategies in Community Medicine.

**Key words:** Role-plays. Community medicine. Teaching strategy. Instruction tool.

## INTRODUCTION

Role-play is used as a training tool in medical education to impart knowledge, attitudes and skills in students.<sup>1</sup> It provides an essence of social environment to the learners and formulates framework of their future working.<sup>2</sup> This educational tool gives an opportunity to the medical educators to analyze the learner's reaction and responses in context to real life situations and also encourages feedback from the peers.<sup>3</sup>

With increasing awareness of ethical considerations in medical profession, it is now required that doctors and medical students should know what is to be asked from the patients and how it should be asked by showing sensitive, supportive and non-judgmental attitude.<sup>4</sup>

Worldwide, the curriculum of medical education is now emphasizing on the importance of communication skills as a stepping stone towards quality care of patients.<sup>5,6</sup> The central idea of incorporating role-plays as part of curriculum is to offer the under-graduates an opportunity to learn how to work in difficult circumstances which can emerge when they will start their career in the society.<sup>7</sup>

Role-plays are basically created and implemented with keeping the principals of Knowles adult learning in mind which focuses on learner's need to know, self direction, diverse experiences, and a problem centered approach.<sup>8</sup> It is widely used as an educational method for learning about communication in medical education based on sound rationale provided by educational theory.<sup>9</sup> Engaging students in role-play not only promotes active learning, but can also be used to deliver components of the curriculum of both basic and clinical subjects of a medical program.

In medical education, knowledge alone is not enough to bring about a better health care delivery system. Although 'learners' often like formal lectures, the uni-directional transfer of knowledge is not an effective way in increasing competence for better doctor-patient

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relationship. The contemporary teaching methodologies which emphasize 'interactivity' like role-plays have been shown to be more effective basis for increasing competence in health care provision. Role-plays are most effective if learning objectives are defined, and the cases are challenging.

This study was conducted to determine the medical students' perspective about role-plays as a teaching strategy in community medicine.

### METHODOLOGY

An experimental study was conducted at the Department of Community Medicine at Fatima Memorial College of Medicine and Dentistry from July to November 2010. A total of 63 students were selected from the third and fourth year MBBS classes to give their feedback about the role-plays conducted as a teaching strategy in community medicine. A probability technique of simple random sampling was used to collect 46 students from fourth year MBBS and 17 students from third year MBBS. They were randomly distributed in five sub-groups. In each group again, the participants were distributed randomly as observer only, as a member to give suggestions, as a member for discussion and the actual participant of role-play. A questionnaire was distributed to get students responses. The data was analyzed on Statistical Package for Social Sciences (SPSS) version 17 to compare the responses of two different classes. The results obtained were presented in the forms of frequencies and percentages. Chi-square test was applied to have comparisons between qualitative responses and p-value was fixed at  $\leq 0.05$  level of significance.

**Table I:** Students preference for instructional tool in teaching community medicine.

Instructional tool	Study year		Multiple responses
	3rd year	4th year	Total
Lecture	17 (29.8%)	0 (0%)	17 (22.4%)
Tutorials	03 (5.3%)	2 (10.5%)	05 (6.6%)
Demonstration	10 (17.5%)	2 (10.5%)	12 (15.8%)
Field visits	11 (19.3%)	6 (31.6%)	17 (22.4%)
Role-plays	16 (28.1%)	9 (47.4%)	25 (32.9%)
Total	57 (100.0%)	19 (100.0%)	76 (100.0%)

**Table II:** Students' perspective about conduction of role-plays (multiple responses).

Responses		4th year	3rd year	Total	p-value
Feasible way of learning	Yes	29 (67.4%)	17 (100%)	46 (76.7%)	0.007
	No	14 (32.6%)	---	14 (23.3%)	
Clarity of communication	Yes	35 (76.6%)	17 (100%)	53 (82.8%)	0.028
	No	11 (23.4%)	---	11 (17.2%)	
Provoked critical thinking	Yes	32 (69.6%)	16 (94.1%)	48 (76.2%)	0.042
	No	14 (30.4%)	01 (5.9%)	15 (23.8%)	
Time allocation was appropriate	Yes	31 (67.4%)	15 (88.2%)	46 (73.0%)	0.098
	No	15 (32.6%)	02 (11.8%)	17 (27.0%)	
Better attention span	Yes	37 (80.4%)	17 (100%)	54 (85.7%)	0.049
	No	09 (19.6%)	---	09 (14.3%)	

### RESULTS

Sixty-three students were selected as participants of this study in which 46 belonged to the fourth year MBBS (73%) and 17 were third year MBBS students (27%). There were 13 male (20.6%) and 50 female (79.4%) students. Twenty-five of the participants (32.9%) picked out role-plays as their favoured instructional tool for content coverage and 17 favoured lectures (22.4%), 17 found field visits (22.4%), 12 emphasized on demonstrations (15.8%) while only 5 favoured tutorials (6.6%) as the most comfortable instructional tool in teaching (Table I).

In the conduction of role-plays, 17 (35.4%) and 10 (58.8%) students of fourth and third year respectively played the role of actual participant while 11 (22.9%) and 1 (5.9%) were observer's only. Rest of the participants discussed the situation and gave suggestions to the peers.

When the students were asked to share their perspective about conduction of role-plays as a teaching methodology in community medicine, 51 students (78.5%) admitted that it improved their knowledge about the subject of community medicine. Fifty-five of the participants (84.6%) thought that conduction of role-plays in this subject will help them in their future clinical settings and 59 (90.8%) found them as an interesting mode of information transfer.

Out of a total 63 participants, 49 (75.4%) agreed to incorporate role-plays in curriculum of community medicine which comprised 35 (72.9%) and 14 (82.4%) of the fourth and third year MBBS respectively. Out of them 16 (31.4%) agreed to incorporate them on a monthly basis.

Multiple responses were obtained about student's perspective for conduction of role-plays. Twenty-five participants (25.5%) agreed that role-plays helped them to gather academic information, 41 (41.8%) agreed that they helped in improving the communication skills. Removing barrier of communication with the teacher was identified as an advantage of role-plays by 11 of the participants (11.2%) and 21 (21.4%) strongly agreed that it helped them in making acquaintance with local situation. It was identified by 46 participants (76.7%) that

induction of role-plays in curriculum will prove to be a feasible way for adult learning. Significant similarity was found between the responses of students in 3<sup>rd</sup> and 4<sup>th</sup> year MBBS when they were asked to respond about the conduction of role-plays (Table II). Medical students considered role-plays as a feasible way of learning ( $p = 0.007$ ). Role-plays led to critical thinking ( $p = 0.042$ ) with clarity of communication ( $p = 0.028$ ) and generated better attention span than lectures ( $p = 0.049$ ). Time allocation was considered appropriate.

Thirty-five participants (54.7%) agreed that role-plays should be incorporated in clinical subjects only, 5 agreed (7.8%) that they should be incorporated only in the basic sciences and 23 agreed (37.5%) for inclusion of role-plays in both the clinical and basic sciences.

## DISCUSSION

Role-plays are identified as an effective mode of instruction in medical education which increases the cementing bonds between students and teachers. A role-play is a powerful tool to make learners deal with realistic, serious complex and ambivalent professional situations.<sup>7</sup> Role play is a powerful intervention which can be used to enhance cognition, psychomotor skills and affective domains in learners. The power of role play to engage emotions is its power as a teaching aid.<sup>10</sup> Role-plays are predominantly used in teaching sensitive subjects such as drug and alcohol use, domestic violence and sexual health.<sup>11-13</sup> Teaching of communication skills in palliative medicine can also be achieved using role-plays.<sup>14</sup> Doctors and medical students should know how to deal with patients while handling sensitive issues.<sup>4</sup> Role play is used as an effective teaching strategy if the role-plays are properly structured and formulated on the basis of meeting objectives of the course.<sup>15</sup> In this study, students selected as participants of this study belonged mostly to the fourth year MBBS and some to third year MBBS students; with majority of female students. They were most comfortable during the content coverage of community medicine, with role-plays followed by lectures, field visits and demonstrations while only 6.6% favoured tutorials as the most comfortable instructional tool in teaching. Role-playing seems to be an educational tool favoured by students and instructors alike. Students or trainees welcome role-playing because this activity brings variations, movement, and most likely, simulated life experience into the classroom or training session.<sup>16</sup>

Role-plays were identified as most effective method of teaching by a significantly greater number of students. Role-playing is identified as an effective training tool used primarily for the participants' skill acquisition (behavioural competence development), to enhance the learners' cognitive understanding (information intake and intellectual grasp) and to enrich the trainees'

affect experience (their emotional awareness and enrichment).<sup>17</sup> More students played the role of actual participant, while only a small number were observers. Rest of the participants discussed the situation and gave suggestions' to the peers. It was observed that 51 of the students (78.5%) admitted that the role-plays have improved their knowledge about the subject of community medicine. Role-playing as an educational device of choice can be adopted and effectively applied for affective transfer of knowledge between peers and even from facilitator to learner.<sup>18</sup> In this study, 84.6% of the participants thought that conduction of role-plays in this subject will help them in their future clinical settings. Another study conducted at Manipal College of Medical Sciences (MCOMS), Pokhara, favoured these results in which participants of role-plays felt that the skills acquired during this teaching methodology would be useful in their future practice.<sup>19</sup> The results of this study showed that 90.8% of the participants found role-plays as an interesting mode of information transfer which has generated great interest in the subject. Same results have been obtained from a study conducted by Lanea, which has shown that use of simulated patients and role-plays has generated great interest of students in communication skills training program.<sup>20</sup> Peer role-play is a low-cost tool which is relatively easy to install in medical education. It allows trainees to experience the perspective of both the physician and the patient. Experiencing these multiple perspectives and the ambiguity of the partners involved in communication helps to improve trainees' understanding of the complexity of the physician-patient interaction.<sup>21</sup>

A study was conducted in medical graduates to see the impact of role-plays in teaching genetic counselling and it was observed that all participants agreed that role-play was effective in helping them understand genetic counselling and testing. Most participants also commented that the session helped them understand the importance of referral for genetic counselling and the impact of test results.<sup>22</sup> It was suggested by 76.7% of the participants that induction of role-plays in curriculum will prove to be a feasible way for adult learning. Significant association was found between the responses of students of 3<sup>rd</sup> and 4<sup>th</sup> year MBBS when they were asked to respond about the conduction of role-plays. A high degree of training acceptance is found for role-plays in most of the undergraduates and post-graduates students of medical education.<sup>21</sup> Role-plays are identified as a feasible way of learning which provokes critical thinking, has been proved by many studies.<sup>17</sup> Tackling difficult problems in role-plays have been shown to be essential for the acceptance and success of peer role-play in both postgraduate settings and undergraduate curricula.<sup>23</sup>

In this study, majority of the participants approved that role-plays are a feasible way of learning, admitted that

there was clarity of communication and said that it has provoked critical thinking about the subject. Similar results have been obtained by other studies as well.<sup>24,25</sup> Better attention span was reported by 85.7% of the participants. It is accepted worldwide that role-plays generate a lot of interest among the learners and have better attention span as compared to didactic teaching.<sup>16</sup> Approximately 54.7% of the participants agreed that role-plays should be incorporated in clinical subjects only, 7.8% agreed that they should be incorporated only in basic sciences and 37.5% agreed for inclusion of role-plays in both clinical and basic sciences. Many studies have recommended the use of role-plays as an essential element to be incorporated in curriculum of medical education.<sup>26</sup>

### CONCLUSION

Role-plays are well accepted by the students as an effective teaching methodology and they may be incorporated as a mode of teaching community medicine.

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