

## **Introduction of the Role Play: An effective innovation in Medical Education Technology.**

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Short Title: Innovative 'Role Play' methodology.

### **.Summary**

This study was conducted to find out whether the role play is an effective teaching learning method and whether it improves communication skills. In the role play, second year MBBS students acted out a scenario in which one of them became a doctor and the other a patient. The doctor gave information and instructions about the drug or dosage forms. A pretest and posttest questionnaire was given before and after the role play. There was a statistically significant improvement in the post-test replies as compared to pre-test replies. Students' feedback on the role play was positive with majority supporting it. Role play is an effective teaching learning method which helped majority of the students to understand pharmacology topic in a fun way and improved patient physician communication.

**Key words:** Communication skills, Medical Education Research, Pharmacology.

### **Introduction**

Pharmacology is a vast and volatile subject where in students are expected to gain knowledge about drugs and apply this knowledge for the wellbeing of the patient. Student is also expected to empathize with the patient.

Optimal drug use is one of the most vital elements for successful therapy and this can only be achieved by effectively communicating with patients. The effectiveness of a drug depends not only on its chemical content but also on the information which is given to the patients and the patients own faith in the effectiveness of the drug.<sup>(1)</sup>

The role play is a teaching – learning method appropriate for teaching communication skills. Aronson and Carlsmith described role play as “an / as- if experiment in which subject is asked to behave as if he or she were a particular person in a particular situation.”<sup>(2)</sup>

Role playing is an exercise in which the students plays roles of suffering patients, doctors, para- medicals etc. and begin to experience different kinds of behavioural attributes. In a role play, the participants exaggerate a situation or an incidence so that the audience can better appreciate the gravity of the situation. Not only the participants benefit from the role-play, but also the audience who can empathize with the characters of the role. The job of the teacher is to plan a theme.<sup>(3)</sup>

Communication is the process by which we exchange information between individuals or groups of people. It is a process when we try as clearly and accurately as we can, to convey our thoughts, intentions and objectives. Communication is successful only when both the sender and the receiver understand the same information.

Good communication skills are key to success in life, work and relationship. Without effective communication, a message can turn into error, misunderstanding, frustration or even disaster by being misinterpreted or poorly delivered.

Excellent communication skills are essential for a successful medical professionalism<sup>(4)</sup> and it can definitely be cultivated. It is never too late to learn and medical students in their early clinical years are ideally suited for training (catch them young)

In a role play on dosage Forms in Pharmacology one student assumes the role of a doctor and another takes the role of a patient. They together act out a scenario where the doctor gives information about the drug and the dosage form.

This provides them with opportunities to “act out” the different behaviours of individual ‘and in doing so’ provides the appropriate means for all students and observers alike , to study the attitudes, emotions and values of all concerned.<sup>(5)</sup>

Role play is the most effective teaching technique when interpersonal skill are required and when part of professional skills involves handling of complex human interactions and social dilemmas. Role play is most suitable in the subject of patient care, as it provides opportunities for students to examine their attitudes and values towards patients and allow them to practice and improve the communication and patient care handling skills. The emphasis of role play here is not on the acquisition of new material but rather on the reinforcement or changing of existing attitudes.<sup>(6)</sup>

Although role play is regularly used to develop communication skills in medical students, there are very few published papers that evaluate role play as an educational method<sup>(7)</sup>

We have made an attempt to include Role Play as one of the practical teaching techniques in Pharmacology and it can go a long way in acknowledging students about the communication skills and instruction techniques.

### **Method**

The study was planned for second year MBBS students for the academic year 2009-2010. We selected Routes of administration and the Dosage Forms as the topic for the role play. First a pretest questionnaire was given to the full class of hundred students. This was followed by the enacting of Role Play . A post test questionnaire and feed back forms were then given to the students. Pretest and posttest questionnaire had same questions and were based on drugs and dosage forms already taught in theory or practical class.

The role play

A total of 100 students were divided into 2 batches batch A and batch B .Each batch of 50 was again divided into 10 groups of 5 students each. Three of these 5 students enacted the roles of doctor, patient and the patient's relative respectively. One student introduced the topic in the beginning and one summarized the topic at the end. Role play was assessed by using communication skill observation guide (CSOG) (Appendix I). A maximum of 50 points could be given to a group on judgment of various parameters.

Statistical analysis was done using Students paired t test.

### **Result**

a) Pretest and Post test assessment

All the 100 students answered the pretest as well as post test session. There was statistically significant difference in the mean test score at the post test session (16.03 +-4.48) in comparison with the mean pre test score (9.98+\_ 3.42) P value was highly significant ( $p < 0.001$ ).

b) Assessment of role play

Twelve out of twenty groups scored > 70% where as  
Eight out of twenty groups scored 50- 69 %

c) Assessment of feedback forms

1) Majority of students 65% stated that the questions asked for the pretest and post test were good. Almost one third 29% thought they were excellent whereas only a few 6% felt they were satisfactory.

2) Most of the students 83% enjoyed enacting role play.

3) As many as 92 out of 100 students opined that the role play was useful in understanding the topic and learning communication skill.  
Out of 92 students 73 specified the individual topics which they understood better. These included proper and safe injecting practices of insulin, proper use of accuhaler, rotahaler and metered dose inhaler, rectal suppository, ointment, transdermal patches, nasal sprays, nasal drops, eye drops, preparation of oral suspension from dry powder and sublingual tablet.

### **Discussion**

Our results indicate that role play is effective means of acquisition of knowledge of communication skills and also understanding the topic better.

The following saying aptly describes this:

If I hear, I forget  
If I see, I remember,  
If I do, I understand.

This is evident from our results which show improved performance of the students in post test. Ninety two students opined that role play helped them to understand the topic better and learn communication skills.

Anders Baerheim reports early extensive supervised patient contact combined with smaller amounts of communication training is more effective than more extensive communication training later in the curriculum.<sup>(8)</sup>

Fienberg reports that early intervention increases the proficiency and skills needed to conduct family conferences and advance communication in palliative care.<sup>(9)</sup>

Students of second MBBS, we feel are at its right phase of their life where they can be moulded and taught the intricacies of communication and behaviour.

There are basically 3 skills in undergraduate education <sup>(10)</sup>

1. Psychomotor skills: wherein action is involved.
2. Communication skill: wherein a message is transmitted across a person.
3. Cognitive skills: wherein decision making or interpretation of data is involved.

Role play encompasses all these 3 skills.

Maguire and Pitceathly have shown that successful training in communication skills depends partly on the training itself and partly on its contextual relevance (i.e. adequate patient exposure).<sup>(11)</sup>

In addition to role play, where role of the patient is also played by the students, an unidirectional communication training can also be imparted where patients are called to the classroom and the students are told to ask them questions and instruct them.

According to Horwitz Christiansen and Rogers role play allows the students to learn in a non threatening and entertaining environment thereby making the learning process to be fun.

Role play generates enthusiasm by encouraging active participation, creativity and ingenuity on the part of the students. Thus students move away from the traditional role of passive observers to that of active participants opines Downing.

As reported by Witt the greater the involvement of the student, the more they would learn and the more successful is the learning process.

By enacting a scenario in clinical situations, role play narrows the gap between classroom and real life. (O Donnel & Shaver, 1990).<sup>(5)</sup>

Majority of students were happy enacting the role play and were in favour of such exercises in future.

This is in agreement with Rees who concluded from his experience that students seemed to prefer experiential methods of learning communication skills such as role playing with simulated patients and communicating with real patients in clinical context<sup>(15)</sup>

Role play also allows students to feel and understand better the roles they are portraying. This would in turn, enable them to examine their own attitudes and feelings, and how they differ from others. (Cherif and Somervill, 1995).<sup>(16)</sup>

The above advantages were reaped with no extra cost incurred. (O Donnel and Shaver, 1990). (5)

Worley, analyzing community based medical education, has delineated four types of relationship that are needed in undergraduate medical education. Apart from the clinical, the doctor patient relationship, he highlights the importance of social, community and interpersonal relationship that are needed for community based medical education.<sup>(17)</sup>

Manickam L therefore feels the need of including content of formation and maintenance of healthy relationship and interpersonal communication in the curriculum. Manickam L stresses on clinical empathy, which involves the ability to understand the patient's situation, perspective and feelings; and the ability to communicate with the patients in an accurate and effective manner have a role to play in patient care.<sup>(18)</sup>

Mercer and Reynolds emphasized that empathy can be enhanced and successfully imparted in medical schools, provided it is embedded with the actual experience of students with the patients<sup>(19)</sup>

In medical practice, good communication and clinical reasoning skills are important clinical competencies. However, research shows many physician inadequacies in these skills including incomplete solicitation of patient concerns<sup>24</sup> and inconsistent exploration of psychosocial issues<sup>25</sup>. These practices can lead to inappropriate prioritization of problems, impaired clinical reasoning and poor therapeutic alliances with the potential for medical error and harm to patients. Providing medical students with the framework to integrate biomedical and psychosocial aspects of patient care early in their training may prevent these errors from occurring later in practice. Windish 2004<sup>(20)</sup>

The main intention of introducing the role play as one of the practicals in II MBBS was to expose the students to an actual doctor patient clinic situation where proper instructions are essential and important for successful practice. This exercise will go a long way in improving the student's skills and imparting hands on experience in real life situations of patient care.

Nikendei 2007 has concluded that role-playing results in significantly better communication and improved patient-physician interaction during the sessions and proves to be an appropriate teaching tool for use with medical students<sup>(21)</sup>

We recommend that all the institutes should incorporate role play in their practical curriculum as a part of medical education.

**1. Doctor (30)**

- Initial greeting (2)
- Eye contact (2)
- Encouraging patient to open up (2)
- Listening to patient (2)
- Subject knowledge (5)
- Application of knowledge (5)
- Demonstration of use of drugs (10)

**2. Patient and Relatives (10)**

- Complaints 2
- Reinforcement 5
- Asking questions 3

**3. Introduction of the topic 5**

**4. Summary of the topic 5**

**Feed Back Form**

1. How do you rate the questions asked for pretest / posttest?  
a) Satisfactory b) Good c) Excellent
2. Did you enjoy enacting role play?  
a) Yes b) No
3. Was the role play useful in understanding the topic?  
a) Yes b) No  
  
If yes please specify the topic
4. Do you recommend role play in future?  
a) Yes b) No
5. Suggestions if any.

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