

Role play as a teaching-learning method for communication skills in prescribing medication

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Abstract

Objectives: The purpose of this study was to evaluate role-playing as a teaching-learning method for communication skills in prescribing medication and to analyse the student's responsiveness to the role-play. **Materials and Methods:** The Pharmacology Department conducted a questionnaire-based observational study for three months in the academic year 2020–2021. Peer-role-play exercises on medication communication were invited for students in the second professional MBBS 4th semester (n = 150). **Statistical Analysis:** The data was imported into a Microsoft Excel spreadsheet and analysed with SPSS 22. Frequencies and proportions were used to display categorical data. **Results:** The concept of role-playing was highly received, and it was thought to be an excellent way to learn how to communicate about medications. Many pupils appreciated the organised evaluation from peers and teachers. More than 90% of the students said they were very comfortable presenting therapy information, such as drug names, purposes, mechanisms, dose information, and precautions. The majority said they remembered pharmacological topics better and would like to see more of them. Peer-role-playing is regarded by the vast majority of pupils as an essential strategy for developing successful drug-therapy communication skills. Role-play sessions are justified in the undergraduate medical curriculum because they provide possibilities for experiential learning and because they are easy to execute. It is necessary to investigate peer-role play as a way of teaching undergraduate pharmacology students' medication-communication skills. Students' perceptions of the sessions' positive effects on their ability to acquire communication skills may influence future teaching methods in this area.

Keywords: role-playing, undergraduate students, perspectives, pharmacology.

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Introduction

According to Manias, medication communication is essential for patient care, treatment efficiency, and patient and family participation[1]. Numerous studies have shown a direct link between effective communication skills and increased drug adherence and patient outcomes[2, 3]. According to the data provided, common medical errors include forgetting the medication's name (26%), the rationale for prescribing (13%), dose instructions (42%–45%), and possible side effects (65%)[4]. Prescription drug interactions are a time-consuming process that necessitates extensive planning ahead of time for the transmission of prioritised information. These skills don't have to be inborn; participants can always be taught and improve[5]. Despite this, training in communication skills is an area that is frequently overlooked[6]. Investing in resources to improve the "communication skills bank" of medical graduates is particularly critical. Undergraduate pharmacology education has traditionally focused on the "theoretical" components of drugs rather than pharmacotherapeutic skills[7]. Pupils are taught how to write prescriptions for medical conditions, but they are not truly prepared to advise or inform patients on proper drug use, which may have an impact on treatment outcomes. Interactive and innovative techniques are chosen over simple didactic techniques for instilling and improving communication abilities[5].

Peer-role-playing is a low-cost approach that allows students to understand the complexities of patient-physician interaction in a "safe and professional" environment[5, 8].

A pilot study with 2nd-year medical students was conducted in the department of pharmacology to assess the effectiveness of peer-role-play as a teaching-learning (T–L) tool in improving communication skills regarding patient education regarding medication prescriptions for chronic angina. The pupils were taught and then assessed using a structured, objective method. The assessment focuses on a checklist created with the Calgary-Cambridge guide modified. In light of these and other studies' findings[5–7]. I designed this study to find out what the students thought about the role-play and if they felt they needed to learn interaction skills that are needed in medical practice.

Materials and Methods

During the academic year 2020–2021, the Department of Pharmacology carried out a three-month questionnaire-based observational study. Peer-role-play exercises on medication communication were invited for students in the second professional MBBS 4th semester (n = 150).

Ethical approval

The Institutional Ethics Committee granted ethical approval. Students were briefed on the role-play sessions after providing a written, consent form. Each student actively participates in at least one role-play while observing the others.

Training Tool

The department's subject experts analysed and finalised common medical conditions that an Indian medical student encounters on a regular basis, as well as effective communication concerns related to drug prescriptions. Ten training cases were prepared with the learning objectives in mind. Table 1 shows Case studies for a role-playing

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session;The Calgary-Cambridge reference to a proper medical interview for such a communication process is the reference for developing training material for professors and students[9-10]. A structured text for students was created for each of the training cases, which included clear and concise patient and doctor briefing sheets, with an emphasis on the Calgary-Cambridge guide's clarification and planning sections, such as providing information

about the possible treatments and encouraging shared decision-making[9-10]. All training materials were reviewed by institutional peers, and ideas were implemented after extensive discussion. The faculties were given a training handbook that includes case-briefing sheets as well as explicit instructions on how to provide useful feedback in each case.

Table 1: Case studies for a role-playing session

Case studies for a role-playing session	
1.	An adult female patient aged 42 (weighing 60 kg) is diagnosed to be suffering from Paucibacillary leprosy.
2.	An adult female patient aged 42 (weighing 60 kg) is diagnosed to be suffering from Multibacillary leprosy
3.	A case of epilepsy that was recently discovered.
1.	A Type 2 diabetes patient requires an insulin therapy.
2.	Newly diagnosed a category 1 tuberculosis patient.
3.	A hypertensive patient with a new diagnosis.
4.	A child with mild to moderate bronchial asthma
8.	An adult male with chronic angina.
9.	An adult female with a severe migraine.
10.	A patient with a newly diagnosed peptic ulcer

Methodology

Each role-playing session required five students: one as a physician, one as a patient, and three as observers. Teachers were able to select their own training cases as well as roles. The role-playing sessions took place in the course of regular pharmacology practicals. Students had previously attended a lecture class on communication skills in general as well as technical details of medication counselling (problem-oriented learning). To focus on communication, students who play the roles of physicians and patients are given role sets that include all relevant medical relevant data and case summaries, respectively. If necessary, the students were free to incorporate emotional responses into the discussions. Student observers receive structured feedback relying on a checklist that includes elements for

observation and reflection. The faculty- supervised the conversations and gave critical, constructive feedback on the medical and communication issues raised in each case.

Assessment of outcomes

Students have attended at least eight training sessions and will perform at least one individual role before giving a prevalidated questionnaire at the conclusion of the tenth session, which will ask about their opinions on (a) role-playing like a T-L tool and (b) the merits of drug communication training sessions, as measured by a five-point Likert scale: 1-highly disagree, 2-disagree, 3-uncertain, 4-agree, and 5-highly agree. Table 2 shows T-L Tool for Role Playing Students – General Perceptions[11].

Table 2: Questions and responses

Questions	Highly disagree (%)	Disagree (%)	Uncertain (%)	Agree (%)	Highly agree (%)
1. My ability to communicate with patients has improved in general.	1 (0.67)	0 (0)	4 (2.66)	15 (10)	130 (86.66)
2. My ability to communicate drug therapy to patients has improved in general.	0 (0)	0 (0)	2 (1.33)	7 (4.66)	141 (94)
3. My level of confidence in conveying the role of certain drug to patient's disease has improved.	1 (0.67)	0 (0)	2 (1.33)	14 (9.33)	133 (88.66)
4. My level of confidence in conveying the drug-use recommendations to patients has increased.	0 (0)	0 (0)	3 (2)	23 (15.33)	124 (82.66)
5. My ability to communicate medicine dosage has increased.	1 (0.67)	0 (0)	1 (0.67)	13 (8.66)	136 (90.66)
6. My level of confidence in conveying the administration frequency has increased.	0 (0)	1 (0.67)	2 (1.33)	8 (5.33)	139 (92.66)
7. My self-assurance in communicating the duration of my therapy	1 (0.67)	0 (0)	3 (2)	6 (4)	141 (94)
8. My self-assurance in communicating drug side effects has increased.	0 (0)	0 (0)	4 (2.66)	8 (5.33)	138 (92)
9. I'm quite confident in my ability to communicate drug warnings.	0 (0)	0 (0)	5 (3.33)	11 (11.33)	134 (89.3)
10. I learned how to read a prescription's abbreviations.	1 (0.67)	0 (0)	3 (2)	17 (11.33)	129 (86)
11. I'm more confident in my ability to write a thorough prescription now.	1 (0.67)	0 (0)	4 (2.66)	6 (4)	139 (92.66)
12. I believe I will do better in the objective structured performance assessment evaluation for prescription writing in this unit.	0 (0)	1 (0.67)	6 (4)	12 (8)	131 (87.33)
13. I'm pleased with my ability to write prescriptions.	0 (0)	0 (0)	5 (3.33)	8 (5.33)	137 (91.33)
15. I'd want to see comparable demonstrations in other preclinical units	0 (0)	0 (0)	2 (1.33)	3 (2)	145 (96.66)
16. I wish to have similar demonstration during the clinical phase.	0 (0)	1 (0.67)	2 (1.33)	2 (2.33)	145 (96.66)

Statistical Analysis

The data will be imported into a Microsoft Excel spread sheet and analysed with SPSS 22. Frequencies and proportions will be used to display categorical data.

Results

A total number of 100 students (100%) completed the questionnaires and attended at least five of the ten training sessions. The results were as follow:

General Perceptions about Students' Role Play

Over 95% of the pupils thought the role-playing concept was novel and that it was valuable to participate in it. There was widespread agreement among students that role-playing was a good T-L strategy, with A large percentage of students agreed that this training was very helpful in learning how to communicate about drugs and that they must be included in standard pharmacology curricula. A large majority favoured more of these sessions for skill development, with just a small minority believing that role-playing was a waste of time. Figure 1 shows Students' perceptions of the advantages of role-playing medication communication sessions.

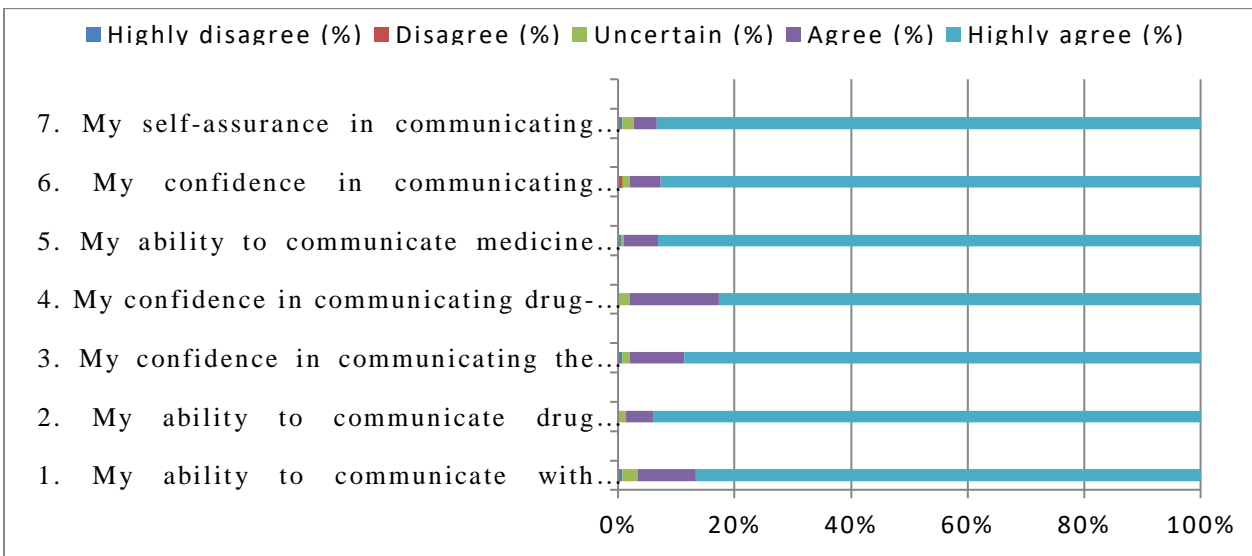
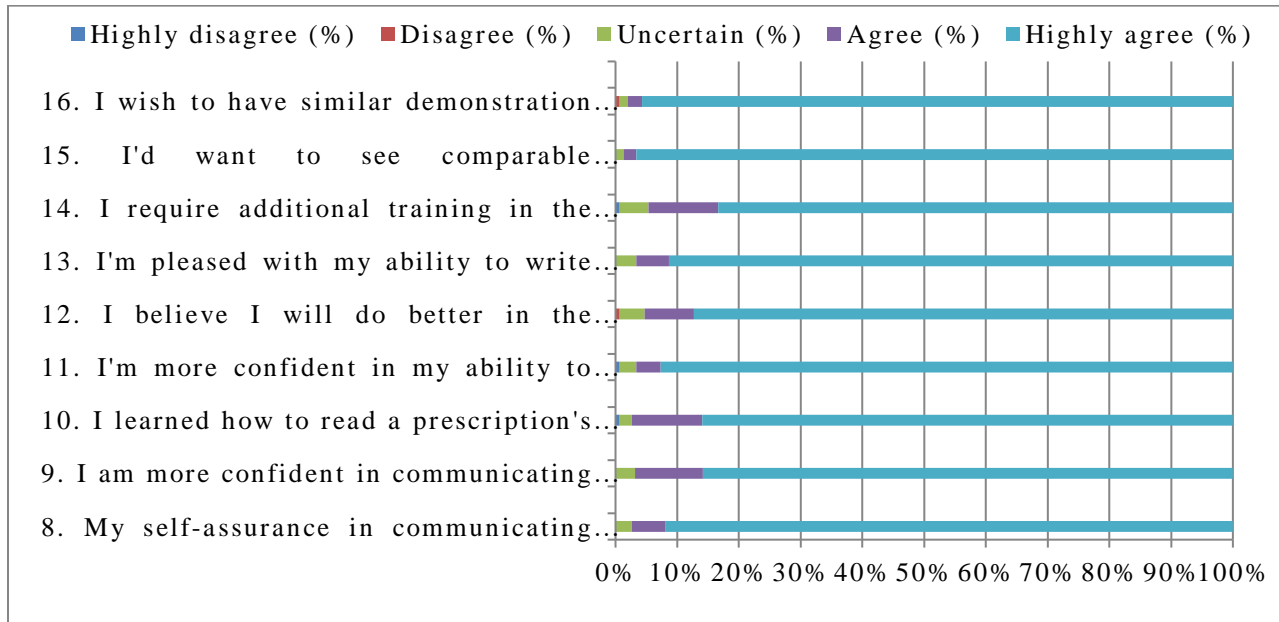


Fig 1: Responses

Learning Medication Communication Skills and Its Perceived Importance

Students responded positively, with the vast majority recognizing the importance of skill development for future clinical practice. Table 2 in light of the significance of communication skills prior to and after role-playing sessions.

Table 3: Medication communication skill's perceived impotence in future clinical practise

Medication communication skill's perceived impotence in future clinical practise	No difference (%)	Important (%)	Extremely important (%)

Before role play	10.5 (7)	102 (68)	37.5 (25)
After role play	0 (0)	7.5 (5)	142.5 (95)

Discussion

Prescription medication communication is an essential component of every physician-patient medical practise. Students may be taught good communication skills using simulation, which allows for the integration of theoretical and practical knowledge[8]. We developed a few hypothetical scenarios addressing these concerns and used peer-role-play sessions as an instructional approach to accomplish the learning objectives. According to educational theory, role-play models are preferable because they give students a platform to be productive as well actively participate in improving professional and interpersonal behaviours rather than be passive observers[12]. The students liked the idea of role-playing and thought it was an excellent way to teach skills in communication. Bosse et al. discovered similar effects in their peer-role-play study[5]. These outcomes may be ascribed to the beneficial characteristics of the role-playing approach, notably the gathering of people with different perspectives, experience-based learning and information sharing, thinking outside the box, and creating innovative problem-solving strategies[8]. Pharmacology is a constantly evolving field that student's study during their clinic sessions and even beyond. Flexner's ideas suggest that one strategy for studying this subject is to give the core concepts and then enable students to apply them in a clinical setting. It was encouraging to observe that a large number of students saw role-plays as an important T-L strategy for understanding and remembering pharmacological topics. According to Manzoor et al., role-playing can be used to provide modules on both the fundamental and clinical aspects of a medical program[13]. Furthermore, role-playing has the dual benefit of developing skills as well as empathy for patients and hence ought to be included in medical curricula[5].

It is clear that patients who had appropriate consultations with their doctors regarding prescription medicines had excellent rates of adherence[14]. Some of the study's objectives were to teach students how to convey pharmacological details to patients. It also serves as the foundation upon which therapeutic outcomes are built. Students expressed high levels of confidence while advising patients on drug therapy, with a focus on the medicine name, objective, mechanism, dosage details, preventative measures, and most pertinently, follow-up information. A similar survey on drug therapy interactions found that such an attempt increases students' confidence in reducing medication mistakes in the future[11].

Regardless of its prominence in fostering active learning, role-playing has its own set of difficulties[8]. One of the difficulties we encountered was the initial unwillingness of a few pupils to participate, as well as time limits. Time constraints were resolved by including training during normal practical hours. Permitting students to pick instances of interest, experiencing fellow students' enthusiasm, as well as some guidance from professors, revived the interests of reticent students. By encouraging students to take on at least one part during the discussions, introverts and poor achievers were given an adequate chance to act and learn. Finally, the majority of them believed that the skills they gained during several discussions would actually be useful throughout their own forthcoming medical practice, which aligned with Shankar's research findings[15]. Participant observation learning is an essential component of behavioural research. "Behavior change may and frequently occurs through observation," the researchers write, "though such assessment is unintentional and occurs in the context of other activities"[16]. By providing a guide that includes aspects for both analysis and reflection, the participants seemed to have the opportunity for deliberate, active learning. Most of the pupils praised this.

Limitations and Strengths

Numerous research studies have preferred the role-playing strategy for improving general communication skills[5, 13]. However, there is a lack of data on its efficacy in teaching medical communication skills, particularly in the context of Indian medicine. The current study made use of hypothetical scenarios that were created in line

with the required pharmacological knowledge for the role-playing series. Furthermore, attempts have been made to include a structured feedback process as well as opportunities for reflection to optimise the benefits of role-playing.

Because only quantitative data was evaluated, incorporating a few open-ended questions to analyse the qualitative components would have allowed for a more in-depth exploration of students' perspectives. A focused faculty discussion of the workshops in a group setting would have provided useful information as well.

The impact of pharmacotherapy counselling skills training may be examined in real-world clinical settings utilising assessment approaches such as mini-clinical evaluation exercises or structured objective clinical examinations.

Conclusions

According to medical students, peer-role-play sessions had a good influence on enhancing prescription communication abilities for future clinical practice. This study provides a more reliable foundation for using role-playing in the preparation of students related to drug therapy in academic pharmacology pupils. In order to promote knowledge acquisition, it is pastime to take into account incorporating role-playing into the current medical curriculum.

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Conflicts of Interest

There are none.

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