

# Communication skills for medical/dental students at the University of Pretoria: Lessons learnt from a two-year study using a forum theatre method

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## Abstract

**Background:** This study describes the lessons learnt from using a novel method for teaching communication skills to second-year medical/dental students.

**Methods:** Medical and drama teachers designed this action research project to serve the educational interests of second-year medical/dental and drama students. The drama students enacted problematic doctor-patient scenarios for their forum theatre course. The interactive enactment was done for groups of 60-70 medical/dental students. The latter interrupted the actors to suggest improved communication skills. The drama students then re-enacted the scenarios, incorporating the improvements. The medical/dental students' knowledge of communication skills was assessed before the enactment, three weeks later, and again four months after that. Their semi-structured feedback was analysed thematically. In the next year, the feedback was used to improve the methodology for the new second-year students.

**Results:** In both years, the medical/dental students' knowledge showed a statistically significant improvement after the enactment, and this was sustained for four months. In year 1, the feedback revolved around language problems and disrespectful attitudes. In year 2, visual cue cards of the communication skills were displayed during the act, and the drama students emphasised these rather than attitudinal problems. However, feedback showed that caricaturing the doctors' attitudes still detracted attention from the desired focus on communication skills.

**Conclusions:** Although the forum theatre method can transfer knowledge of communication skills, the focus of the acting should be on the demonstration of inappropriate communication skills rather than inappropriate attitudes. One limitation of this study is that assessment was limited to knowledge and did not progress to skills.  
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## Introduction

Communication skills have attracted increasing attention in curricular development internationally,<sup>1-7</sup> and various methods have been employed to aid the teaching of these skills.<sup>8-15</sup> Although there has been collaboration between medical practitioners and drama teachers for voice training,<sup>16</sup> and between medical teachers and actors in the use of 'trigger films',<sup>17</sup> this study evaluated the outcomes of

a more complex, novel collaboration between medical teachers and drama teachers to teach communication skills to second-year undergraduate medical and dental students.

The context of this study was the revised six-year undergraduate medical and dental curriculum at the University of Pretoria that was rolled out in 1997. It includes certain 'golden threads', e.g. the Golden Thread of Interpersonal Skills, which provides

training over six years for good doctor-patient relationships and good communication skills. Thinking that a live enactment of the doctor-patient relationship might facilitate students' learning, the medical teachers approached the drama department to request its collaboration. The project contributed to the learning of two sets of students: second-year medical and dental students, as well as second-year drama students. In both cases, the

students' learning was assessed and contributed to their marks for that year.

A specific drama educational tool (forum theatre) was used.<sup>18</sup> The teaching intervention was based on an enactment of the doctor-patient relationship by the second-year drama students. The enactment was required for their curricular module titled Theatre For Development, led by the head of the drama department – an expert in Boal's method of theatre and therapy.<sup>18,19</sup> In this drama method, the audience participates in the enactment as 'spect-actors', combining spectator and actor functions to solve problems. The process is facilitated by a 'joker', who is both facilitator and participant-actor. The drama students received training in communication skills and the simulation of patients. They developed short scenarios of doctor-patient interaction that were riddled with poor use of communication skills by the 'doctor'. The forum theatre method allows for real-time responses from the medical and dental students to direct the actors to behave differently and to employ communication skills appropriately.

The study was designed and conducted according to an Action Learning and Action Research (ALAR) approach, according to which the medical and dental students, the drama students, and the investigators underwent experiential learning.<sup>20</sup> In the ALAR approach, a spiral process of planning, implementation, observation, reflection and re-planning is followed. These ALAR anchor points correspond with the structure of design, methods, results, discussion and conclusions found in the traditional scientific method. This paper reports on two cycles of the spiral ALAR process, pertaining only to the medical and dental curriculum. The processes pertaining to the drama students' curriculum will be reported elsewhere.

### Cycle 1 of the study

#### First implementation phase

The second-year class consisted of

187 medical and 52 dental students (N=239). No control group was used, since the researchers could not justify denying a subgroup of students access to the teaching intervention. Scripts illustrating the inappropriate use of communication skills were written by the drama students. The medical teachers gave input to render the scripts more realistic and to ensure that they illustrated communication skills problems. Five doctor-patient scenarios were used in Cycle 1 (scenarios 1-5 in Box 1). A checklist of 15 specific communication skills, as identified by Kaplan & Saddock<sup>21</sup> (Table I), was handed out to the students immediately before the enactment to remind them of the required pre-reading and for reference purposes.

**Table I: Checklist of communication skills**

Open-ended questions
Closed-ended questions
Reflection
Facilitation
Silence
Confrontation
Clarification
Interpretation
Summation
Explanation
Transition
Self-revelation
Positive reinforcement
Reassurance
Advice
[From: Kaplan HI, Sadock BJ. Synopsis of Psychiatry. 8th ed. Baltimore, Maryland: Williams & Wilkens; 1998. p. 9-11]

The teaching intervention was repeated for each of four groups of 60-70 students on four consecutive afternoons. The intervention started with the acting of the first doctor-patient scenario by the drama students. The scenario was then acted again, but now the health sciences students had to interrupt the actors as soon as they noticed inappropriate behaviour/speech by the 'doctor'. The health sciences students then offered suggestions, after which the actors modified their act. The 'joker' facilitated the procedure. The health sciences students thus witnessed their own learning of communication skills. The

second doctor-patient scenario was then acted and managed similarly, followed by the other scenarios. The duration of the entire teaching intervention was two hours. A video recording was made of the intervention.

Immediately after the teaching intervention, the students completed a student feedback questionnaire consisting of open questions that attempted to identify those portrayed communication difficulties from which they had learnt the most, which solutions were portrayed, which other appropriate solutions they could suggest, what else they learnt from the intervention, what they found the most and the least enjoyable about the intervention, and what future improvements they would suggest for the intervention. The student feedback responses were analysed qualitatively, coded and categorised into themes by the investigators.<sup>22</sup> Similarly, the video recordings were analysed and themes were extracted. The two sets of data were then triangulated.<sup>22</sup>

A short test on communication skills, consisting of 15 matching-item questions (matching a communication skill with an example of its verbal illustration), was used to test recall of the theoretical knowledge of the communication skills on three different occasions: a few days before the intervention, three weeks after the intervention, and four months later. A comparison between the results of the three tests assessed how well the students learned and how well they retained their knowledge after four months. Repeated measures of analysis of variance were used to test for statistically significant differences between the results of the three tests.

#### First observation phase

Four main themes emerged with respect to the communication difficulties observed by the medical and dental students. The first theme referred to specific communication skills, as depicted in Table I. The other

**Table II:** Repeated measures of analysis of variance for the three test situations

	Cycle 1 2001					Cycle 2 2002				
	Test 1	Test 2	Test 3	F-value	P>F	Test 1	Test 2	Test 3	F-value	P>F
N	102	102	102			85	85	85		
Mean score	8.33 <sup>a</sup>	11.21 <sup>b</sup>	11.37 <sup>b</sup>	100.18	<.0001	9.17 <sup>a</sup>	11.39 <sup>b</sup>	11.21 <sup>b</sup>	18.80	<.0001
Std. dev.	2.72	2.43	2.15			2.50	2.14	2.77		

The scoring range was 0 - 15

Within each cycle, different characters indicate a significant difference between the means at the 1% level of significance

three themes related to 'masking' attitudinal and language issues, viz. the doctor and patient did not understand or speak each other's languages; the doctor displaying or not displaying an attitude of respect towards the patient; and the challenges of dealing with an aggressive patient. The latter three themes appeared to remove the focus from the specific communication skills. Categorised in this way, the ratio of responses relating to masking factors to those relating to specific communication skills was about five to one (5:1). The students' suggested solutions to the observed communication difficulties drew mostly on the communication skills of facilitation, open-ended versus closed-ended questions, silence, and clarification.

Scrutiny of the scripts confirmed that the scenarios demonstrated instances of inappropriate use of communication skills, as opposed to the non-use of these skills. However, despite the potential of the scripts to meet our learning objectives, the acting by the drama students emphasised the subtext (i.e. the way the lines were delivered emphasised inappropriate attitudes) to such an extent that the subtext overshadowed the demonstration of the skills. Furthermore, problems relating to the early phase of the consultation, including the greeting sequence, were frequently repeated unnecessarily.

Regarding the assessment of knowledge, the test scores for the group as a whole in Cycle 1 are summarised in Table II, along with the results for Cycle 2 (discussed later). The number of returned tests varied

between the three test situations, and the number of complete sets of three test results was 102 for Cycle 1. Repeated measures of analysis of variance showed that the three test results in Cycle 1 differed significantly ( $F = 100.18$ ;  $p < 0.0001$ ). There was a significant increase in the mean score from Test 1 to Test 2. The mean scores for Test 2 and Test 3 did not differ significantly.

### First reflection phase

The results of the first observation phase showed that masking factors (language differences and attitudinal problems) overshadowed the demonstration of communication skills. Whereas the language issues were a feature of the scripts, the attitudinal issues (relating to disrespect and aggression specifically) were thought to be the result of an overpowering subtext and of the repetition of greeting-related problems. Notwithstanding the identified subtext problem, the three tests provided evidence that the students had learnt and retained, for at least four months, theoretical knowledge of communication skills.

### Re-planning

For Cycle 2, a number of methodological revisions were aimed at helping students to become more aware of the specific communication skills that were being demonstrated and at reducing the focus on the attitudinal issues (see below).

### Cycle 2 of the study

#### Second implementation phase

The scripts were revised to portray a broader range of 'doctor' personalities.

The revised scenarios were acted out three times instead of twice. The first enactment was done without interruption. In the second, the 'second joker' identified the communication skills being used during the enactment by pointing to the appropriate cue cards on a 'washing line' above the actors. In the third, the students had to interrupt with alternative suggestions, and the actors and joker focused away from greeting-related problems if they had already been addressed in a preceding scenario. The actors were also told to limit the impact of the identified disrespect and aggression in the subtext.

In this second cycle, the 268 students in the second-year class (212 medical and 56 dental students) were included. Further, the different demographical composition of the drama student group in Cycle 2 led to the replacement of Scenario 5 with Scenario 6 (see Box 1).

### Second observation phase

The participation by students in terms of experiential learning improved from Cycle 1 to Cycle 2. The health sciences students more often moved from spectator to actor ('spect-actor') to act out their suggested improvements.

Three of the four main themes identified in Cycle 1, viz. language, attitudes and specific communication skills, again emerged as the three main themes in the student feedback in Cycle 2. These themes were again confirmed by triangulation through observation of the video recording. In this cycle, the students responded less to the theme of aggression and more to specific communication skills.

**Box 1: The drama scenarios****Scenario 1: Rural mother with baby**

The rural mother brings her essentially healthy baby for a check-up. The doctor and patient do not speak each other's languages and are of different racial, cultural and socio-economic backgrounds. These differences give rise to misunderstanding.

**Scenario 2: Male truck driver**

A male employee consults the company doctor for insurance purposes. The doctor and patient are of different racial and cultural backgrounds, and the patient behaves aggressively towards the doctor.

**Scenario 3: Rastafarian doctor with patient suffering from tuberculosis**

The doctor flaunts her set of beliefs, at the cost of mutual understanding between her and the patient. The scenario also examines the issue of touch in the doctor-patient relationship.

**Scenario 4: Mother with Alzheimer's disease, and daughter**

This scenario demonstrates some of the difficulties in managing a consultation with more than one member of a family. In Cycle 1 of the study, the scenario also included gender-orientation issues.

**Scenario 5: Patient presenting with a human bite**

This scenario touches on the problem of disclosure of domestic violence. It was used only in Cycle 1 of the study. In Cycle 2 it was replaced by Scenario 6 below.

**Scenario 6: Teenager suffering from anorexia nervosa**

The doctor has difficulty in gaining the trust and compliance of the patient. The issue of interruptions in the consultation is also addressed. This scenario was only used in Cycle 2 of the study, where it replaced Scenario 5 above.

Moreover, the range of suggested alternative communication skills was broader than in Cycle 1. Categorised in the same way as in Cycle 1, the ratio of responses relating to masking factors to those relating to specific communication skills was about 4:5 (in contrast to the 5:1 in Cycle 1). The main complaint of the students was that with their repetition three times, the process became tedious. Some students suggested that the scenarios should only be repeated twice, and that the interruptions by the students should occur during the second repeat (as in Cycle 1).

Regarding the assessment of knowledge, a consistent pattern of sustained improvement of prior knowledge was confirmed in this cycle, as in Cycle 1 (Table II). In Cycle 2, repeated measures of analysis of variance again showed a significant difference among the three sets of test results ( $F = 18.80$ ;  $p < 0.0001$ ). There was a significant increase in the mean

score from Test 1 to Test 2 in Cycle 2. The mean scores for Test 2 and Test 3 did not differ significantly from each other. Thus, as in Cycle 1, the students gained and retained theoretical knowledge of communication skills.

**Final reflection phase**

Thanks to the ALAR design that was followed, careful reflection led to methodological revisions in Cycle 2, correcting some of the problems experienced in Cycle 1. However, in this final reflection phase we doubted the wisdom of using forum theatre to teach communication skills to health sciences students. One of the problems was that the specific communication skills and attitudinal issues were so enmeshed in this study (discussed below). The question arose whether forum theatre might not be used more fruitfully to influence students' attitudes. We speculated whether a 'medical script writer', or at least a 'medically informed director',

might not alleviate the problems encountered with attitudinal subtext, and help to ensure more life-like portrayal of the communication skills.

**The balance of specific communication skills and attitudinal issues was partially redressed**

The masking effect of the attitudinal subtext identified in Cycle 1, and which emerged as a problematic methodological limitation, was partially rectified in Cycle 2. During Cycle 2, the communication skills received proportionately more attention from the students in their feedback, and their range of suggested skills broadened, illustrating a better grasp of the subject material. There were also fewer responses relating to the masking attitudinal problems. The use of the 'second joker' may have drawn students' attention more strongly to the communication skills. The problem of the overpowering subtext was alleviated through changes in the directing, as informed by repeated interdisciplinary discussions prior to Cycle 2.

However, the masking factors did not only represent a methodological limitation. Although the masking factors were not strictly aligned with the specified learning objectives, they were still factors inherent to communicating with patients. It might not be bad to expose students to training situations that contain the 'background noise' they will experience in real doctor-patient relationships.

**Inappropriate communication skills, rather than inappropriate attitudes, should be exaggerated in future studies**

Notwithstanding our research team's interim discussions relating to the balance between specific communication skills and attitudinal issues, the medical teachers were still not happy. We were concerned that the dramatic need for caricature to

get the message across might belittle the health profession and remove the learning experience too far from reality. We felt disempowered by the dramatic paradigm dictating that successful drama depended on exaggeration of character types.

Another possibility emerged through further interdisciplinary discussion. Instead of exaggerating the characters of the 'doctors', the exaggerated mistaken application of specific communication skills might solve the problem that we had thought was due only to subtext. Such a shift in the drama method might remove most of the attitudinal issues from the enactment, while retaining great potential for the use of comedy in displaying mistaken skills.

### **This study progressed from simulated patients to simulated doctors**

One of the strong points of the methodology used here was the demonstration of communication skills in simulated medical consultations instead of their presentation out of context. Hopefully this contextual learning will help students to apply the skills when they interact with patients. The use of simulated patients was expanded to introduce 'simulated doctors', with the drama students simulating the roles of both the patient and the doctor. The health sciences students, in their role as 'spect-actors', actively shaped the 'doctors' behaviour. This interactive component is thought to be one of the strongest benefits of the teaching intervention.

### **Dare we expose our teaching to non-medical inputs?**

This experiment of exposing ourselves and adjusting our medical teaching according to medically uninformed inputs, albeit academically informed and professionally accountable drama inputs, felt quite daring at the time. However, the benefits of the resultant introspection are sure to have a wider ripple effect than just the teaching of

communication skills to second-year medical and dental students. It has broadened the medical teachers' views on other possible innovative teaching methods.

The problem with the attitudinal subtext was thought to have arisen because of the drama student scriptwriters' perceptions of doctor caricatures. The incorporation of these perceptions into the scenarios presented the risk of a conflict of interests. However, the exaggeration of these caricatures in the final product had more to do with the workings of the drama method than with non-medical perceptions.

The scenarios had an element of fun and entertainment. This was felt to be appropriate at this early stage of the curriculum, where the focus is on sensitising students to and teaching them concepts relating to communication skills. We were reminded that it could be fun to teach and learn.<sup>23</sup>

### **Interdisciplinary teaching demands thorough interdisciplinary communication**

The interdisciplinary nature of this project brought certain benefits, viz. a rich diversity of perspectives and resources, and a dynamic creativity with a momentum of its own. On the other hand, in our particular context it was demanding in several respects.

The three parallel interests of medical education, drama education, and action learning and action research had to be balanced throughout, as well as integrated into a coherent project. This was complicated by the different agendas and sets of objectives for each of the interests. Negotiations to find common ground between these three sets of objectives, in such a way that the project was mutually beneficial to all, depended on good communication between all the role-players. We had to understand each other's worlds. This was quite time-consuming and demanding in terms of the close co-

operation that was required between individuals from divergent disciplines. Good communication was also a prerequisite for the constructive sharing of dissatisfaction and for conveying problems relating to certain aspects of the research. The close co-operation and good communication were facilitated by the action learning and action research process, which resulted in deeper benefits in Cycle 2 and which might yield further improvements in future cycles.

### **Student feedback is a useful educational research tool**

The student feedback questionnaires were useful in both cycles. The student feedback in Cycle 1 led to the methodological changes described above. Although some students in Cycle 2 complained about the three performances of each scenario, their responses to the open questions clearly reflected the greater attention they paid to the specific communication skills, as opposed to the attitudinal subtext (see above). The students' feedback thus reflected our methodological revisions in Cycle 2. Whereas the students' knowledge improved to the same degree during both cycles, the student feedback clearly demonstrated the improved quality of the results in Cycle 2. We therefore concluded that student feedback was a good and reliable tool in this educational research.

### **Guidelines for improved future assessment**

One of the limitations of this study was the restriction of the assessment to a cognitive level rather than to a skills level, albeit that the cognitive level was application rather than recall. This method of assessment was chosen in the light of the difficulty of assessing performance of skills versus the ease of testing knowledge, especially in large groups over a short period of time, in the face of teaching staff shortages.

Due to the above limitation, an

unanswered question remains, namely whether the methodological revisions in Cycle 2, which clearly changed the students' feedback responses (see above), might also have resulted in an improved ability to use these communication skills. The design of this study did not allow for answering this question.

Future studies should aim at progressing from testing knowledge to assessing skills at the problem-solving level, despite curricular constraints. For example, short essay-type questions might assess the clinical application of the relevant communication skills. Further, an assessment of students' attitudes before and after the intervention might help to elucidate the masking role of attitude-related issues in similar drama-based enactments of the doctor-patient relationship.

### Conclusions and recommendations

The early imbalance between specific communication skills and attitudinal issues was partially redressed by methodological revisions in Cycle 2 of this study. The methodological revisions did not change the students' gaining and retaining of knowledge, but might have affected where their attention was invested, i.e. on the communication skills and away from the attitudinal issues. In the process of reflecting on the two cycles, we learned that the dramatic subtext and drama directing are at least as important as the script content if this type of educational intervention is to be effective.

More importantly, though, we suggest that future studies should use the exaggeration of inadequate or inappropriate communication skills, rather than inappropriate attitudes or stereotypes, to meet the aim of teaching medical and dental students specific communication skills.

This study's progression from simulated patients to simulated doctors was valuable in creating an opportunity

for students to watch their own comments being translated immediately into action, and to direct the simulated doctor's real-time development of communication skills. The students' control over the simulated doctors was thought to be the next best thing to live individual supervision.

Semi-structured student feedback was a useful educational research tool, alongside the short cognitive-level test. Future studies should include the assessment of communication skills at the problem-solving level, such as is routinely done at various stages of the curriculum.

In closing, the action learning and action research approach followed here provided a flexible framework within which we could meet the complex demands of this rewarding interdisciplinary teaching-cum-research project.

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### Conflict of interest

None.

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