

Kata Eklics – Judit Fekete – Renáta Halász – Anikó Hambuch – Judit Szalai-Szolcsányi

University of Pécs
Medical School

Department of Languages for Biomedical Purposes and Communication

Feedback-based approach in teaching medical interviewing

<https://doi.org/10.48040/PL.2023.1.11>

Educational feedback is a facilitating tool in improving medical interviewing skills through simulation practices. The simulated patient (SP) programme at the University of Pécs Medical School aims to provide efficient help for educators and students alike in language for medical purposes, communication and clinical courses. The constructivist feedback methodological approach ensures that students in history taking classes learn from role-playing in simulated scenarios and the feedback offered from the simulated patient. Effective assessment includes the learners' own reflection and the patients' non-judgmental observation on perceived interpersonal communication skills, observed professional misconduct, students' ability to cope in emotionally challenging situations, and suggestions for improvement. Giving feedback has to be offered regularly to enable improvement in medical communication and nurture self-confidence. Our questionnaire survey of the students who attended history taking courses involved both self-reflection and instructor feedback based on their performance during simulated scenarios. The results of the study demonstrated substantial developments in relationship-building skills and self-confidence for students in post-course clinical practice.

Key words: *medical interviewing, feedback, history taking, medical communication, simulated patients*

Introduction

Medical interview

Interview analysis has gained an increasing attention in applied linguistics (Talmy 2010, Mann 2020), and is defined as a dialogue between two people driven toward a common goal. In the case of a medical interview between a doctor and a patient, the mutual aim is the patient's recovery. The patient is motivated to get relief from the pains and uncertainties of an illness, while the physician works towards clarifying the patient's problems and determining the diagnosis, followed by therapeutic plans for the patient's recovery (Lichstein et al. 1990). Interviewing is considered a difficult clinical skill to master, since the physician faces both intellectual and emotional demands at the same time: analytical skills of diagnostic reasoning have to be activated together with interpersonal skills to establish rapport with the patient and facilitate communication.

Effective communication during the medical interview is essential for eliciting information about the patient's present and past complaints, review of systems (ROS), previous surgeries, imaging, risk factors, as well as family history in order to correctly diagnose a patient's condition and plan the treatment accordingly. The quality of the treatment is mostly based on the initial doctor-patient encounters, and it contributes to a higher patient satisfaction and increased functionality after treatment. Other additional positive outcomes for the patient include better compliance with therapy, diet and medications, as well as improved coping mechanisms (Slade and Sergeant, 2020).

As Lichstein et al. stated: “no amount of reading can replace the experience of actually talking with patients, especially if the students' interviews can be observed and critiqued” (Lichstein et al. 1990). Interviewing is a practical skill to be learnt through experience rather than acquired knowledge, ideally to improve it to a satisfactory level prior to the initiation of their medical careers with real patients, which enables the student to avoid unnecessary harm.

For that reason, the communication and medical language courses at the University of Pécs Medical School use the Simulated Patient programme, offering an opportunity for students to practice medical roles in simulated scenarios, and to receive feedback from simulated patients, practising clinicians and linguists.

Feedback

Most medical educators and clinicians rely on Ende's concept of feedback (1983), which can be defined as a formative teaching strategy that provides vital information to guide learners' future performance and help them reach their goals. He also stated that without feedback, "mistakes go uncorrected, good performance is not reinforced and clinical competence is achieved empirically, or not at all" (Ende, 1983:778).

Two decades later feedback was perceived as the basis of effective clinical teaching. With no feedback, good practice cannot be reinforced, weak performances cannot be corrected, and ways to improve cannot be identified. Feedback means providing information to students of their actual and desired performance. Therefore, the purpose of giving feedback is to encourage students to reflect on their performance and think of how they might improve. Feedback changes and improves clinical performance, helps learners to reconstruct knowledge, and feel motivated for future learning (Cantillon-Sargeant, 2008).

Feedback should be incorporated into normal everyday-activities of teaching and learning; thus, it can become an essential element of the teacher-student relationship. Furthermore, learners appreciate feedback when their teachers demonstrate that they also expect and welcome feedback from students from the very beginning of their mutual work. The prerequisite is a clear understanding of the criteria against which a student's performance will be assessed.

In higher education, feedback is often understood as a one-way transfer of information from teacher to student, and no strategies are implied to ensure that the students' learning improves based on the given information. In this approach, the students' participation is limited to listening and acting on the information provided, therefore not allowing for any self-reflection from the student; the teacher may also assume that the students' interpretation is the same as their own (Lüdeke- Olaya, 2020).

Ende's general guidelines are still applied in medical education when it comes to providing feedback, and, for this reason, we also incorporated the following major ideas:

"Feedback should be undertaken with the teacher and trainee working as allies, with common goals.

Feedback should be well-timed and expected.

Feedback should be based on first-hand data.

Feedback should be regulated in quantity and limited to behaviours that are remediable.

Feedback should be descriptive nonevaluative language.

Feedback should deal with specific performance, not generalizations.

Feedback should offer subjective data, labelled as such.

Feedback should deal with decisions and actions, rather than assumed intentions or interpretations." (Ende 1983:779)

Our feedback is based on specific behaviours observed during the simulated scenarios rather than on general performance, and it is phrased in a non-judgemental way: for example, I noticed that the patient had difficulty turning his head up towards you; did you intentionally decide to stand or could you not find a chair in the room to sit down on?

We also tried the “feedback sandwich”— in which positive, corrective and positive sentences are formulated to reinforce proper performance and suggest corrections. This type of feedback is closed with positive summary of what was observed. Some researchers (Parkes et al, 2012) argue that it is better to avoid this technique as many students may misinterpret the received information (more positive than negative remarks, so nothing to work on), while others (Lüdeke-Olaya, 2020) believe that students focus only on the corrective part of the feedback, and ignore the positive, reinforcing comments because many teachers use the word “but” before introducing the corrective comment (and *but* nullifies anything previously said).

Pendleton et al. (1984) described a structured model for conversations about a performance between a teacher and a student. It is a modified feedback sandwich that begins with the learners’ observations and is followed by the teachers’ comments.

1. Ask the learner what went well.
2. Tell the learner what went well.
3. Ask the learner what could be improved.
4. Tell the learner what could be improved.

This model encourages the learner to improve at identifying what should be maintained or developed concerning their performance.

Cantillon and Sergeant (2020) suggest a modified interactive, feedback approach to encourage learners to reflect on their performance and to motivate subsequent improvement in their actions. This method is similar to Pendleton’s model but places more emphasis on the learners’ own ability to recognise action deficits, and provides a discussion about the learners’ future plans to improve.

Shrivastava et al. (2014) highlights the importance of giving constructive feedback to improve quality in medical education. Similar to the aforementioned definitions, feedback is the act of giving information to a trainee via describing their performance in the observed situation. It focuses on the strengths of the students’ actions and areas which require improvement. Feedback is considered constructive in the process of learning if it is given instantaneously and in a sensitive manner.

We agree with Shrivastava and colleagues in claiming that there has to be a mentoring relationship between teacher and student to provide effective feedback. It is best delivered if it occurs regularly in an appropriate setting, focused on the performance rather than the individual, having feedback that is clear, specific and based on direct observation, and delivering it using neutral, non-judgmental language. While emphasizing the positive aspects it should be descriptive rather than evaluative, and should start with the self-assessment of the trainee. The feedback informs the student about what to do in order to become an empathetic and effectively communicating physician, and “It is central to medical education in promoting learning and ensuring the standards are met” (Hewson and Little 1998).

The DESC technique (Describe, Express, Specify, Consequences) has been widely used in medical settings and provides further assistance in giving effective feedback. It is advised to describe the exact observed behaviour starting with „When...”: “*When you touched my hand, I felt supported and it seemed you understood my complaints*”; then, as a feedback provider you express your associated feeling “*I felt...*” and specify the desired potential change in behaviour by saying: “*I’d prefer ...*”; and finally, communicate what would be the consequences for you in that altered hypothetical alternative “*As a patient I could have felt more comfortable if you had maintained eye-contact with me.*”

Medical students have to learn key clinical skills including history taking, physical examination, and communication skills through simulated experiences and also through

providing direct patient care, not only in their mother tongue, but also in the targeted language of their training programme.

Lüdeke and Olaya (2020) draw attention to the lack of feedback provision and state that it is one of the most serious deficiencies in medical education. Self-assessment alone cannot substitute external feedback as there is a natural human tendency toward inaccuracy in self-assessment. They believe that high performers often underestimate themselves, while more inexperienced or overconfident students tend to overestimate their own performance. If mistakes are left uncorrected it may lead to the trainee maintaining these errors, and furthermore, allowing them to pass it on to less experienced peer students or future learners. As a result, a lower quality education would be supported.

In the feedback process the role of culture and language in communication can become a significant barrier for international medical students whose first language is not English (Woodward-Kron, et al., 2011). Therefore, the Medical Education Unit of Melbourne Medical School, Australia has devised the Communication and Language Feedback (CaLF) methodology to bridge the gap between teacher and international medical students. This programme provides a written tool and video recording opportunities of patient-doctor role-plays in a classroom setting, or in an objective structured clinical examination (OSCE) practice classes with a simulated patient. The international medical trainees receive verbal feedback from their hospital-based medical clinical educator, from the simulated patient, and linguists. The CaLF methodology proves to be an efficient tool for medical educators and language practitioners through an interdisciplinary collaboration with international students to enhance their medical communication and language skills (Woodward-Kron, et al., 2011).

This programme shares characteristic traits of our history taking class (with actors) where simulated scenarios are practised by Hungarian and international students in the MediSkillsLab of the University of Pécs Medical School, and feedback is provided not only by the clinician present, but also an actor-simulated patient and a linguist. In recent years we have transformed our feedback system to a 4-perspective one: self-reflection of the student, the professional aspect of the clinician, the empathy-based perspective of the actor/simulated patient, and the communication and professional language-based aspect provided by the linguist.

Methods

Our study – based on a questionnaire survey – analysed the responses to quantitative and qualitative questions on the role of feedback provided by participants and observers of simulated doctor-patient scenarios where students identified with the clinician's roles.

The participants were undergraduate students of the University of Pécs Medical School: 44 Hungarian students attending online history taking and languages for medical purposes courses in English and German (during the Covid restrictions), and 32 international students attending a specific course: Taking Medical History with Actors (in person and online/ before and during Covid restrictions) in the English programme in 2020 and 2021.

The questionnaire included both quantitative (6) and qualitative questions (3) on the role of the feedback given by participants, who were Hungarian students in history taking classes with simulated patients, language instructors and peer-students; and international students in the Taking Medical History with Actors course with actor-simulated patients, doctors and linguists.

On a scale of 1 to 5 the students were asked to assess how informative and supportive the feedback was that they received from the simulated patient, the linguist, the physician, or the peer-reviewing student. The same scale was used to measure how much the participating students learnt from the feedback of the SP/instructor/ and peer student or the physician.

Qualitative questions aimed at identifying the benefits of working with SPs, ways on how clinicians could contribute to students' improvement, and we also asked about the students' experiences regarding promotion of their personal and professional growth.

Results

Simulated patients (actors and lay patients alike) were able to give informative and supportive feedback on the students' performance, although actors could provide more informative feedback (the course has a 5-year-long history with in-person classes reporting to have an immense advantage), 35 out of 44 Hungarian students evaluated their SP's feedback as a grade 5, and 31 out of 32 international students gave 5 points for the feedback provided by the acting SP.

Figure 1. Students' evaluation of simulated patients' feedback

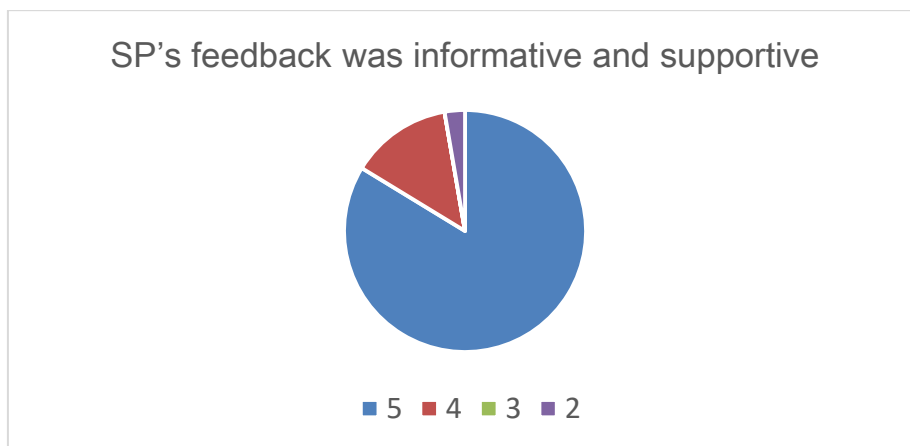
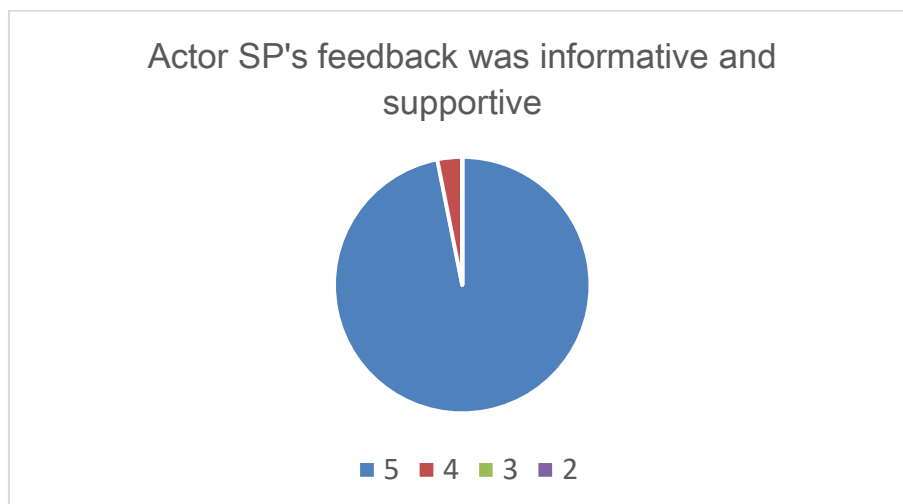


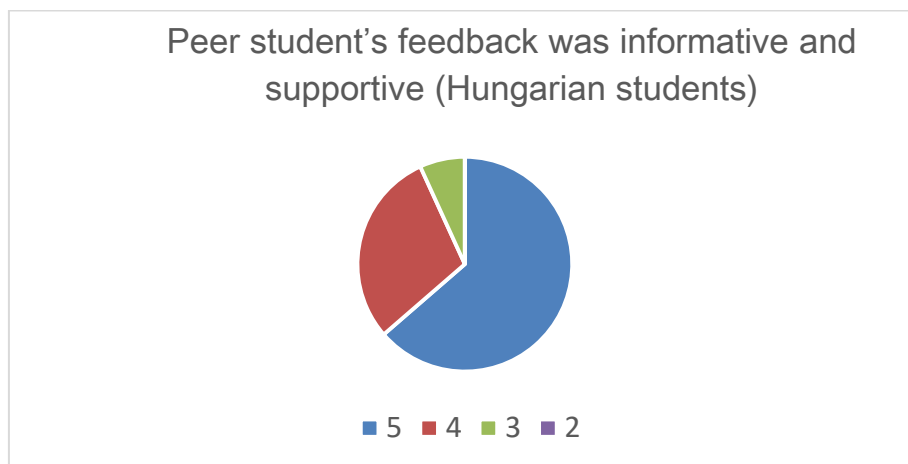
Figure 2. Students' evaluation of actor simulated patients' feedback



The results of the feedback provided by the language instructors or linguists were almost identical between the two groups (89% of the Hungarian students, so 39 students found it very informative and helpful, and 88% of the international students, so 28 students were satisfied with it).

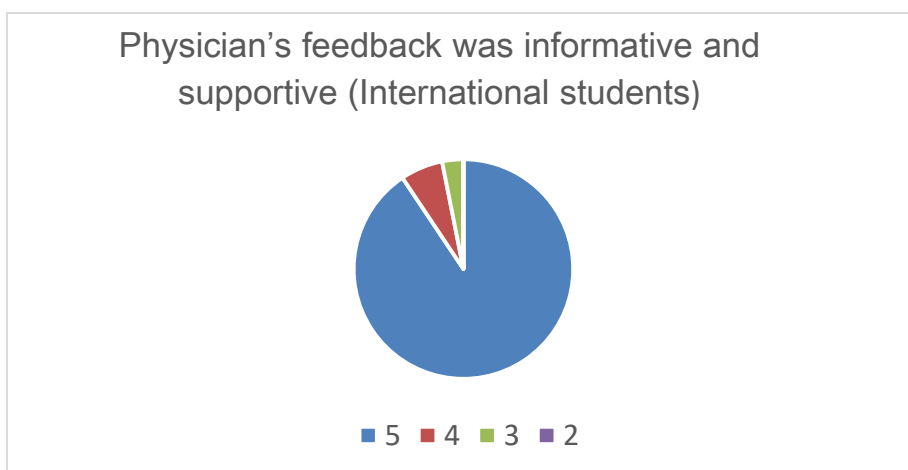
The major difference between the two groups can be seen in the evaluation of the peer-feedback or the clinicians' feedback. 64% (28 subjects) of students in the English or German classes from the Hungarian programme gave the full 5 points as they found the peer-feedback to be very informative and supportive, 30% (13 subjects) gave 4 points, and 7% (3 subjects) assessed that feedback as average.

Figure 3. Students' evaluation of peer-feedback



In the pie graph below, we can see a significantly different result for the evaluation of the clinicians' feedback from the international students of the English programme. 91% (29 subjects) of students stated that the clinicians provided a very informative and supportive feedback, which overrules the importance of peer feedback. Only two students gave 4 points, and one student gave 3 points for this question.

Figure 4. Students' evaluation of the physicians' feedback



From the answers to the qualitative questions, we have highlighted the most common responses. Students claimed: *"I became more self-confident in doctor-patient encounters"*; *"I received relevant feedback so I can improve to be better in real-life situations"*; *"Practising history taking with SPs itself (the chance) contributed to my personal and professional growth"*; *"I feel more equipped in tackling communication difficulties"*; *"Now I know how to approach difficult and helpful human characters"*; *"Feedback of clinicians directed me towards present complaint -relevant interviewing"*.

Conclusion

Our questionnaire survey is consistent with adult learning research results: adults favour constructive feedback that is focused on performance and aimed at their goals. Thus, constructive feedback is an essential element of the learning process and should be considered an integral part of any curriculum in medical education. The self-reflection of our students suggests that the applied feedback strategies facilitate professional development and an overall improvement for medical students. Clinical and faculty educators alike need to engage in the process of feedback, and to develop their own best practice. Providing regular and effective feedback based on direct observation gives an influential tool to inform the student of their progress at a specific point in time, and it contributes to the reinforcement of good practice and motivates the learner towards achieving the desired outcome.

We have to find opportunities to observe trainees and provide quality and timely feedback to facilitate the learning process. Regular trainings for medical educators are essential in increasing the teachers' comfort and skills in providing effective feedback. The complexity of medical education urges the need for better understanding of the purpose, structure and processes of using feedback as a basis for real progress toward quality evaluation.

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