This study was conducted to examine doctor–patient and interprofessional communication skills, particularly self-awareness, listening to others, collaborative communication, assertiveness, and sharing responsibility and power in communication in simulated situations in which medical students would be expected to face problems dealing with difficult situations involving patients. The students, all proficient in English, were enrolled in a MediSkillsLab class. Three of the 15 students participating in the study came from Korea, one from Iran, one from Jordan and the rest of the students were from Norway. Most students were beyond their third year of medical school training. With the help of the new method used in this course, referred to as “medical improv”, we aimed to assess and compare which communication skills are more universally improvable based on using various improvisation techniques and methods regardless of ethnical and cultural backgrounds. Our goal was not to create a piece of “theater”, rather to use medical improv within clinical and educational settings, in which students could practice in a safe environment. The final section of this paper explores the implications of the study, especially the hypothesis that applied improvisation drastically improves communication skills of medical students coming from diverse ethnical and cultural backgrounds.

Keywords: communication skills, doctor–patient communication, empathy, health care, medical improvisation

Introduction

Emotional intelligence, collaborative communication, teamwork, empathy and active listening are all crucial parts of effective communication and related skills. The essential key to good communication and to relating to one another in a more powerful way is embedded in our everyday communication. Numerous sources support the fact that empathetic communication with clear messaging is critical to the development of therapeutic relationships between physicians and patients and to positive patient outcomes (Howick – Moscrop – Mebius, 2018). Social cognitive skills such as empathy (matching the emotional state of another) and theory of mind (understanding others’ mental states) are crucial for everyday interactions, cooperation, and cultural learning (Goldstein – Winner, 2012).

While our field of research is in the medical settings, it is inevitable to mention its basics: acting and improvisation.
“Acting is a peculiarly human activity in which we realistically pretend to be another person without any intent to deceive. There is both theoretical and empirical support for the possibility that acting training may increase empathy and theory of mind.” (Goldstein – Winner, 2012)

Theatre theorists have argued that acting fosters empathy (Verducci, 2000) because actors take on roles in which they must feel and portray the feelings of their characters (Goldstein – Winner, 2012).

The use of theatrical improvisation with the aim of improving communication skills within educational settings is not a new concept. It is associated with the term of “applied improvisation”, which is the application of theater improvisation beyond theater spaces to foster the development of new mindsets. These skills can be learned as improv is a technical set of skills. Beyond these skills a deeper set of skills, the so-called metaskills lie (Mindell, 2003). Metaskills incorporate the ability of being comfortable with uncertainty, the willingness to say yes, and the capacity to catch secondary signals within oneself in difficult situations.

Improvisation is the art of improvising, while it is also a process, a way of making things, while its key elements hold as a foundation for a new way of improving and developing communication skills. The idea of play, of being engaged in something, and being present in the moment is one of the most fundamental principles of improv, while keeping the concept of failing and letting yourself fail in mind. The third core principle is “saying yes” (agreeing to what the partner has said) and adding to that (yes, and…).

Medical improvisation is “the study and practice of improv theater philosophy and techniques as applied to the unique challenges and environment of healthcare for the benefit of improved health and well-being of providers and patients” (Fu, 2012). Medical improvisation is different since the focus is not on entertainment but rather on a learning process and on creating opportunities for individual and team learning.

Methods

The aim of this study was to investigate whether the acting training and specifically improvisation can causally be implicated in fostering empathy, mentalisation and overall better communication skills among medical students.

Our present study applied a survey research method based on students’ feedback as a part of the end-of-term course evaluation. Thirteen international students (Norwegian, Vietnamese, Iranian, Korean and Jordan students) attended our course entitled Taking medical history with actors – simulation.
practices in the MediSkillsLab, where authentic medical cases are turned into simulation scenarios and medical students can try to play doctoral roles with actors as their simulated patients. Most students were beyond their third year of medical school training. Students had no experience previously in acting or theatrical and/or medical improvisation. Utilizing actors and lay actors as simulated patients has many advantages, such as the opportunity of side-coaching, stopping mid-scene, and it puts less emotional pressure on the patient and additionally the scenes can be repeated many times. “They can be trained in a broad range of clinical cases….their behaviour is predictable.” (Cleland et al., 2009)

We piloted two questionnaires together: the Consultation and Relational Empathy (CARE) Measure, which is a patient-rated measure of the interpersonal skills of healthcare, and the Final Empathy and Clarity rating scale (ECRS) form (developed by Terregino et al., 2019). After every role play, CARE was filled out by the patient (the actor) and ECRS was filled out by fellow medical students who observed the role play from outside. The Consultation and Relational Empathy (CARE) Measure is a validated patient-rated measure of the interpersonal skills of healthcare practitioners. The main acting medical student in the scene shared his feelings afterwards during the verbal discussion. Forms were filled out in the beginning of the semester, and then the students underwent (and are currently put through) various improvisational exercises. Beginning-of-course evaluations used a 5-point scale in both feedback forms.

Results

Due to the fact that we plan to further study these developing skills as part of an ongoing empirical research, we decided to exhibit a pilot study in this article and continue this examination and study in the future. We intend to involve medical students in various improvisation techniques within the framework of several, short workshops in order to assess whether their communication skills have in fact improved or not.

The beginning-of-class exercises the students went through themselves were not related to clinical scenarios. Instead, the ‘games’ and vocabulary drawn from theatrical improv provided a structure for applying lessons learned in the communication exercises to the doctor–patient relationship. Each session included enough time for students to discuss and comment on what they saw and experienced in their scenes and their role plays, as well as how they could utilize their new skill in real clinical settings. The following improvisation exercises were used prior to the role plays as warm ups: mirror exercises (physical and verbal sync) and various forms of
observation exercises. We present our three case studies to illustrate how our role plays pan out and what types of difficulties medical students face. These are parts of our ongoing empirical research, where the 3-part feedback giving style is given followed by a group discussion.

**Case Discussion 1**

In the first case discussion, we had a patient in critical condition with a relative arriving later to see the patient. In the first group, the medical student was to take his medical history while dealing with the distressed relative. In our first role play, a student from Iran took the lead and she was to handle the situation. She started well, using the tools of assertive communication, while the other two students stood back being a bit timid and quiet. She tried to take the distressed relative aside, though she focused on the task too much and failed to notice the meta-communication and body language of the relative (she raised her voice, stood too close to the relative and she touched her shoulder). This caused tension in the situation though she managed to escort the relative out of the room. During the discussion, she expressed how she felt she needed to dominate the situation to take the control back from the relative and guide the attention back to the patient who was in critical condition.

After the role play situation, we asked the patient to fill out the CARE form, while discussing the ECRS questionnaire with the fellow students. Based on the feedback given, it was obvious which areas we needed to focus on, where anomalies existed. It was apparent that these role play situations felt very different from the insider’s perspective, and what felt organic and natural in the situation for the students looked very different, sometimes borderline aggressive, to the observers. Observers overall played an important role as the participants got an alternative perspective to learn from.

**Case Discussion 2**

In the second case discussion, the medical student handling the situation took on an assertive yet empathetic leadership style. He was a student from Norway and being quite tall, he decided to kneel by the relative to even out the status gap between them already present from the social situation. He looked the relative in the eye, never raised his voice but maintained a firm, yet gentle tone while explaining the situation to the relative and politely escorted the somewhat hysterical relative out of the room. It was important to see how students took risks in speaking up and listening as they gained more trust and became more confident.
**Case Discussion 3**

In the third case discussion, the medical student from Hungary led the first couple of medical history questions. She started the encounter timidly and the stress of the situation – caused by the interaction with a patient’s relative - resulted in her losing control over handling the situation in an effective and assertive way. She was unable to focus on the patient’s feelings as her concerns about remembering the medical history taking questions took over and hindered her ability to stay in the moment and actively listen to and notice the patient’s needs. Her voice got increasingly quiet as the scene digressed, and by the end of the scene, she retreated completely. In such cases medical improv could be an essential tool to facilitate a safe environment for taking emotional risks by giving the student permission to be expressive so the emotional charge of reacting is minimalized thus helping the student develop emotional intelligence.

**General Discussion**

Studies in the past 20 years have described the positive effects of patient-centered communication for both the patients and the physicians. Since communication is an emotional and technical act at the same time, we believe that the technical parts could be taught and learned and the emotional aspects could be directed in order to be expressed in a more open and honest way with the help of improvisation. We presented the above three case studies to illustrate how these role plays panned out and what types of difficulties medical students face.

In any case of giving feedback to patients and relatives, improvisation skills help to notice the other person, to read the meta-communication signs, to hold the eye contact and to react in an empathetic way fit for the actual situation. Our own experience with healthcare providers and the uncertainty of everyday life situations prompted us to consider and research new ways of teaching communication. Understanding the importance of these skills is only the first step for seeking constructive ways to develop them. Effectively this paves the way for learning the core principles of medical improv as these principles are inherently involved in building basic and essential communication skills. 

Modifying the syllabus and including medical improvisation as one of the tools of our teaching method is a challenge we have approached. Additional validation and an ongoing incorporation is needed to further evaluate the effects of medical improvisation, but the first results are
promising. Further development of these feedback methods is necessary to fine-tune these two questionnaires together and additional validation is needed to evaluate ECRS longitudinally. Comparison, however, between these tools and the actual dimensions they measure is rare (Terregino, 2019). This pilot study suggests that this 3-part feedback giving style might be able to measure the positive effects of medical improv in medical students.

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