Teacher and actor perceptions of a recent journey involving clinical simulation

Percepções de docentes e atores de um caminho recém-traçado na simulação clínica

Iêda Aleluia[1] (ID)
Ana Cláudia Carneiro[2] (ID)
Marília Fagundes[3] (ID)

Maristela Sestelo[4] (ID)
Regina Brasil[5] (ID)
Tânia Soares[6] (ID)

[1,3-5]Escola Bahiana de Medicina e Saúde Pública (Salvador). Bahia, Brazil.
ana.carneiro@bahiana.edu.br, mariliafagundes@bahiana.edu.br, maristelasestelo@bahiana.edu.br, reginabrasil@bahiana.edu.br
[2]Corresponding author. Escola Bahiana de Medicina e Saúde Pública (Salvador). Bahia, Brazil. iedaleluia@bahiana.edu.br
[6]Cia Teatro Griô (Salvador). Bahia, Brazil. tania@teatrogrio.com.br

ABSTRACT | INTRODUCTION: Medical education is under many modifications, insertions, and new perspectives on the learning-teaching process, and the realistic simulation is one of these changes. It includes technical skills but also attitudinal skills. The original idea of simulation is to integrate theoretical knowledge, skills, and attitude. **OBJECTIVES:** To tell the experience of building a simulation core in our institution, with faculty development and culture changes. **METHODS:** Using the cartography, 04 teachers and 02 female actors told their narratives by memories and reflections about the path traveled and the knowledge they built. **RESULTS AND DISCUSSION:** Each one experience the first simulation scenario in 2018.2. We reached the original objective (students' participation and study) and the depth of each one experience and reflection. There was a balance between technique and sensibility. The actor's role in building and concretizing the project was essential in this balance. **CONCLUSIONS:** The simulation strengthened the attitudinal competencies, promoted the faculty development, and showed the importance of putting together art and technique on the health professional training.

KEYWORDS: Simulation. Medical education. Attitudinal competences. Learning-teaching.

RESUMO | INTRODUÇÃO: A educação médica vem sofrendo uma série de alterações, inclusões e novas perspectivas no processo de ensino-aprendizagem, sendo a simulação realística uma delas. Engloba não somente as habilidades técnicas, mas também as atitudinais. A ideia básica da simulação é integrar conhecimentos teóricos, habilidades e atitudes. **OBJETIVOS:** Relatar a experiência de construção do núcleo de simulação em nossa faculdade, agregando desenvolvimento docente e a mudança de cultura. **METODOLOGIA:** Através da cartografia, relatar a vivência de 04 professoras e duas atrizes, pelas narrativas de suas memórias e reflexões sobre o caminho percorrido e o saber construído. **RESULTADOS E DISCUSSÃO:** Na experiência de cada uma sobre o primeiro cenário de simulação, em 2018.2, percebeu-se que o objetivo proposto foi cumprido (participação e estudo dos estudantes), mas também a profundidade da reflexão e da experiência de cada um. Houve o equilíbrio entre a técnica e a sensibilidade. O envolvimento das atrizes, na construção e concretização do projeto foi essencial nesse equilíbrio. **CONCLUSÕES:** A simulação fortaleceu as competências atitudinais, promoveu o desenvolvimento docente e mostrou a importância da união da arte e da técnica na formação do profissional de saúde.

PALAVRAS-CHAVE: Simulação. Educação médica. Competências atitudinais. Ensino-aprendizagem.

Introduction

Medical education has experienced a series of changes, additions, and new perspectives referring to the teaching process. Traditionally, medical education is based on individual knowledge, attitudes centered around teaching, readings of scientific evidence, and practicing procedures on real patients. The fragmentation of knowledge into specialties and medical learning based on passive techniques, for example, theoretical lessons and written tests, demonstrably reduces knowledge retention and practical application.[1]

Realistic simulation (RS) is one element in a new teaching method that involves technical skills and crisis management, leadership, teamwork, and clinical reasoning in critical situations or ones that may damage a real patient. The term "simulation" is currently used to describe several teaching methods for health professionals, leading to confusion about applying distinct strategies.[1] Terminology for specific technical skills or part-task trainers, the use of standardized patients, virtual reality, and high-fidelity simulation are thrown together. However, they all encompass several areas in medical studies, such as cardiology emergencies, trauma, pediatrics, gynecology and obstetrics, intensive care, anaesthesiology, attitudinal skills for the doctor-patient relationship, and others.

In 1999, the Institute of Medicine's (IOM) report, To err is human[2], revealed alarming data about patient safety, demonstrating that approximately 98,000 patients died annually in the United States due to errors during hospitalization. The report contained recommendations about training programs for interdisciplinary teams, incorporating "simulation" as a training method. It reinforced the importance of innovation and investment in training methodologies focused on learning and the practical application of learning acquired by health professionals.[2-4]

Other strategies exist, such as the utilization of low and medium fidelity simulation mannequins, specific computer programs, and virtual games, which enable the simulation of a specific situation. Choice of strategy should be linked to the learning goal, prior participant learning, costs, and adequate teacher training. Simulation in medical education is already an established method, which expands possibilities for discussion and learning, with longer-term knowledge retention rates, and is more pleasant and pleasurable than traditional teaching.[1,5,6]

The basic idea behind RS is to promote the integration of theoretical knowledge, technical and attitudinal skills, encouraging students to coordinate their skills simultaneously, thus facilitating the transfer of what is learned to solving new problems.[1,7] Skills in communication, leadership, decision-making, teamwork and skills for doctor or health professional-patient, inter-professional and interdisciplinary relationships appear to be the greatest benefits for the training of future health professionals.[1,8]

Most simulation studies aim to train specific technical or behavioral skills for residents or graduate professionals, hindering the methodology's full incorporation into the curriculum.[1] However, the use of RS, especially in graduate courses and particularly in Brazil, is relatively new. Its utilization has multiplied with the adoption of new technologies.

The simulation was not applied systematically in our institution. In the first semester of 2018, there was an opportunity to employ it more widely; this was related to strengthening skills-based teaching (teamwork, interpersonal communication, decision making, capacity to reflect about the practice) and to external challenges to get an adequate place in the practice fields in the health system, in a reduced offer to undergraduates' students. A pilot project was initially created to assess its acceptance and educational impact on both students and teachers.

Having this objective in mind, we began to identify when to include simulation in the curriculum and which teachers had the profile and availability to work with this model. We set up the Centre for Medical Simulation, responsible for planning the simulation project: scenarios, objectives, materials, and space. We invited 04 teachers from the fifth semester's Medical Semiology I module, interested in working with simulation techniques and the available workload. The journey began - a unique opportunity for teacher development, fully identified with the

course and teacher needs. The collective construction method occurred naturally, transforming the group into a small practice community, where knowledge was shared and discussed, and reflections regarding practice were built.[9]

During this journey, the community grew, with the inclusion of teachers from other courses (nursing and psychology) and the Griô theatre group, a theater research and practice group, from Salvador, and its mission is to take the theater to different spaces. That enabled an exchange of experiences and different viewpoints, analyzing the various angles of the creation process and allowing the group to develop its own identity. The group was composed of participants from diverse knowledge and experience areas, bringing respect and affection, all associated with academic educational rigor and in the interests of cooperation.

Methodology

The pilot project began in the second semester of 2018, and we initiated our meetings in June 2018.

We had eleven meetings, two and a half hours long, based on 'coffee and conversation.' We defined: 1. The themes to be addressed in the simulations: dementia, approach to cough, thoracic pain, and communicating bad news; 2. Teacher working hours: workload expansion required for course coordination; 3. Identifying teacher needs teacher development, mediated by the Institutional Programme for Faculty Development of our school(called *Programa Institucional de Desenvolvimento Docente*: PROIDD) with 30 hours duration; 4. The actors to perform the simulated patients: discussed with the theatre group according to the scenario's patient profile; 5. Educational goals for each case: the most important learning and reflection goal for the simulations; 6. The application format for each scenario: duration of scenario, discussion, geographic location, the weekly interval between scenarios; 7. Assessment: teacher field diaries and meetings between each simulation to assess and adjust as required. The pilot project began in September 2018 with excitement and anxiety regarding the first steps of a journey for both teachers and students... and the actors.

This investigation discusses the experiences of four teachers from the Clinical Skills discipline and two female actors at our Medical School (*Escola Bahiana de Medicina e Saúde Pública*). It aims to analyze reports of experiences from the first scenario using a realistic simulation, evaluate the project, and register the simulations' preparation process; we wondered to document their perceptions in this first moment of the experience. Participants were given the name of a flower to preserve their identity.

Data collection was based on each participant's narrative, constructed according to their memory of the experience in the second semester of 2018. Since we are dealing with qualitative methodology, the teaching report narrates experiences recognized as significant for the subject and discusses them in a contextualized manner combined with information from the literature.

Inspired by Costa's experience with cartography, the work does not focus on a description of facts but instead discusses their degree of importance, not based on the perspective of social importance, but on what emerges from the body of the researcher, from the body they create from the things they encounter, feel and experience[10]. From this perspective, the work consists of a set of knowledge presented from the researcher's viewpoint, who, instead of describing truths, describes the journey so that new progress may occur, emphasizing the process of historical production.

Results

Analytically, theoretically, and methodologically, the report narrates the experiences of the four medicine/semiology teachers and the two female actors. Undertaking realistic simulation scenarios was an innovative and challenging experience for each one of them.

The first scenario involved an older woman with dementia, accompanied by her daughter, who wanted guidance and referral to support her mother. The students (117 divided into groups of 20 students throughout the week) were surprised but entered into the simulation, allowing the teachers to witness the final result of so many meetings, discussions, and uncertainties, while the actors enthusiastically entered into this process.

As limitations of this work, we can highlight that we show only the first scenario because the teachers' field journal was in this single moment.

Discussion

We know that simulation uses emotions to encourage learning. Witnessing this happening, being said, felt, and permitted, is exciting for the teacher. To create emotional baggage, to access memories that are useful for the health professional, to stimulate reflection in practice, to enable knowledge and perception of the feelings aroused during the meeting is fundamental for the training of a future health professional or doctor. We see this with the simulation – for both students and teachers, it is a process that goes beyond technique.

The analysis applied focuses on teacher and actor perceptions during the first simulation scenario, referring to care for a patient with dementia.

When we analyzed this first event, we perceived that we had attained our proposed objective. However, we also noted that the result went far beyond what had been determined: we were working with the subtle material we are all made of. We touched memories and stirred emotions. These feelings, thoughts, and reflections were treated with the same depth as the technical goals, demonstrating the balance required when caring for people.

The first teacher, whom we will call Begonia, described her experience thus:

"I was responsible for running the first class.

The classroom contained everything we had planned; the students were separated from the simulation environment by the glass and the speakers for the microphones used by the actors and the volunteer student in the simulation.

I explained to the students that this activity was new to this subject that the faculty had contracted actors, and they applauded; they were enthused. One of them needed to be the "doctor" to simulate a scene of outpatient care (...) The actors had already received their directions in a prior "briefing," I guided the student, provided some questionnaires, and asked her to do what she thought was most relevant for the patient's situation.

During the scene, the student applied the Mini-Mental State Examination with no difficulties, concluded her suspected diagnosis, and recommended a consultation with a specialist.

We discussed feelings and conduct in the debriefing. We first talked about the volunteer student's emotions and those of the other students, the distress surrounding a doctor when dealing with an uncooperative patient, one who presents difficulties in or is incapable of responding to simple questions (...). The actors praised how the volunteer student responded to them and talked about how they felt and how they were happy to perform in this kind of activity, which was also new to them.

(...) My feeling was one of accomplishment, given the organization of the project and pure emotion in seeing the students' receptivity and pleasure in this new activity. I see it as providing an opportunity to work in various situations that may significantly support the students' growth."

These words lead us to an initial technique necessary for developing simulation, one which immediately moves to work with emotion, with the possibility of constructing attitudinal skills in a new way. That is in keeping with the literature[5], both in its approach to attitudes and the importance of the debriefing as a moment for reflection and learning.[11]

The second teacher, whom we will call Rose, describes her experience thus: "Initially, I presented the activity to the students, informing them of its objective. There would be no Semiology grade assessments for this activity (...)

The student was attentive and followed the right procedure for receiving a patient in a medical consultation, the story was extracted properly and, out of the forms that were on the table, the student chose to apply the Mini-Mental State Examination (...). Everyone agreed that this was a very common real-life situation and cited the various feelings they experienced: "To be in the patient's shoes," "Humanity in treatment," "Feeling insecure when applying the test," "Attention and sensitivity," "Sadness on noting that this person used to be a different person," "Concern about transmitting the seriousness of the situation to the carer," "Concern about caring for the carer."

We see the possibility of dealing with common real-life themes in ways that go beyond technique. These words elucidate the sensitive dimension of the simulation. That is in line with Mitre[8], who addresses the importance of active teaching methodologies for learning which surpasses cognition and accesses creativity, affectivity, and autonomy.

The third teacher, whom we will call Daisy, described her experience thus:

"Surprising and gratifying! These words describe the construction process with colleagues and the meetings with the student groups to practice this new experience in Semiology! When I accepted the offer to participate in this construction, I will admit that I didn't have a clear idea about what the journey would entail; I didn't really bring any baggage to this form of teaching. But, the more we had weekly meetings, from June 2018, to plan and construct this experience, which is new to the students and us, the more the enthusiasm spread, and we went on to discover spaces we hadn't known about.

During the initial organization phase, there were many discussions, the search for material, preparing the themes, and constructing the cases in meetings full of collaboration, friendship, knowledge exchange, coffees, cappuccino and questions! We made contact with colleagues from other areas to produce audio/video material which was made available to the students for study, and with the case, I took on, I organized and recorded an interview with a colleague about the theme

of "Communicating difficult news" – it was a new and exciting activity, to be a teacher-reporter! (Laughs)

The decision taken during this preparation to perform the scenes with professional actors made all the difference! (...) as well as skills, they brought extreme sensitivity when constructing the characters, and this was translated into the veracity of the situation, which involved everyone who participated in the practice! It was wonderful!

And the cherry on the cake has been each meeting with the groups of students, where one of them takes on the role of the doctor, and the others participate, almost with bated breath, watching their colleague and the actors, totally involved and feeling all the energy of the process, which was developed at the initial (and crucial!) moments of practice. It has been a real experience for everyone, not only the simple observation of a scene (...) For me, although I already knew the script, it has been exciting to participate in developing the practice, "live and in color," since the scene's energy involves everyone equally! And the statements in the debriefing constitute very productive sharing!"

Renewal, the possibility to leave your comfort zone, and learning new skills are all evident in Daisy's words, becoming an apprentice again. That demonstrates the relationship created between experience and what emanates from it: the story that is developed, felt, learned. It describes the importance of teacher development focused on need, on reflecting on action.[12,13]

The fourth teacher, whom we will call Jasmin, describes her experience thus:

"At the beginning of the activity, I explained to the students that we were working with a simulated scenario with two female actors. At that point, one of them needed to be the "doctor" to attend to a family whose mother had memory impairment. (...) They should feel safe and secure in that environment since it was essential to keep confidential information. I went on to say: "We expect strong emotions, and it is not ethical to comment on what takes place during a consultation or an experience." "Exercise ethics and care for the other." Do you accept the challenge? Of course, they were afraid. It was something new; they didn't know what it would be like... some had heard that it was something cool... but it took time for them to take action until one of them came forward. In Thursday's group, it was Flor, and in Friday's, it was Linda.

(...) I understand the scenario to be something greater than the scene created by the group of teachers (...). This scenario, in particular, refers to my memories of my mother and her dementia. My feeling was pure emotion, and seeing the scene as it developed, taking on flesh and becoming a reality with great actors, and seeing the care the students took in receiving them, trying to reassure them, working with empathy. The emotion of seeing them discussing their feelings, with shining eyes, their lived and genuine emotion, citing personal stories about their grandparents, how they would like someone to care for them... the affection and pain and at the same time feeling that they were safe to expose their ideas and feelings. (...) I cried many times ... and I wasn't ashamed to tell the students that this was my story and how much emotion it awoke in me, since, in the end, we are all human and need to get in touch with our emotions to be able to deal with them in general and in our professional life.

What I would do differently: I really don't know, since the end result of this work was greater than I had wished, from an educational point of view. We could have a goal to create new scenarios with a range of situations in which there is room for more restrained expressions.

What do I take home: we are on the right track.

Everyone, unanimously, students, teachers, actors, had the opportunity to get in touch with genuine emotions in a safe environment. I would take home that it helps the students to reflect on their human feelings, to care for other human beings, which is very important (...) I am proud to be a teacher here!"

This last passage demonstrates the potential human encounter in training future professionals.

It makes it clear that the simulation opens up another perspective for teaching, which incorporates both technique and sensitivity, stimulating reflection about oneself and the other. What is described in all these speeches is the implicit potential of simulations to provide a secure environment for training future health professionals.[5,14]

Below are the words of the female actors, whom we will call Camellia (daughter) and Angelica (mother):

"(...) It was important for the scene to be simple, sincere, and real. Within this context, I arranged and rearranged myself every day to find sense in this woman's behavior, a character in a family drama caused by Alzheimer's disease. At the end of each simulation, we had feedback from the group director, who noted the weak points in the staging; we waited for this moment of exchange every day since it enabled us to make changes to our mode of acting, how to be in the scene. Praise was also important; it motivated us and made us realize we were on the right track. I was amazed to see art enter into such a scientific space. It was very important to be part of this. Art entering into such an objective, technical, practical place, bringing sensitivity and reflection, so that acting could enable debates about how to behave during a consultation, how to provide a diagnosis, how to position oneself in consultation and within the doctor-patient relationship, it's fantastic." (Camellia)

"The proposal developed by the team, which was interested in providing a new approach to medical teaching, was very important. As an actor, the challenge to create the character gave me the desire to do the job, secure in the guidance provided by our coordinator, and satisfied with the material supplied by the organizing team, which supported the acting. It was extremely challenging and gratifying to work as a patient in their relationship with their doctor as an actor/character. It provided great learning. A really challenging and involving job (...)." (Angelica)

Camellia and Angelica raise the importance and difficulty of incorporating art and sensitivity into medicine. At the same time, however, they are explicit about the dialogue between technique and feeling, experience and reality in the construction of learning.[15] The simulation allows us to analyze the two sides of the situation (professional and patient), in their back and forth, in the ability to change places and experience each person's difficulties. That is a new possibility for training future professionals: they may observe themselves, may be observed, and discuss new pathways. There are no barriers or fixed images. The movement is real within the simulation, and the actors' view is fundamental. The actors enable this observation, this exchange with the student, with the teacher, since they represent the patient, they create the possibility of real-life within

the theory, they arouse feelings and reflections and provide their perceptions of the consultation. They experience the character and enable the student to create their own character, with everything that this creation represents in the established doctor-patient relationship.

The teachers wrote up their perceptions and reflections about the process provided a new consciousness about practice. It enabled shifts and freedom in narrating the experience, in what was observed, and how this process impacted professional training: teacher and student.[16,17]

Final considerations

Positioning simulation within the Medical Semiology teaching process led to a number of gains and reflections. In the first place, it helped to strengthen the attitudinal skills (empathy, ethic, sensitive listening, communication) addressed in the curricular component. Within this, it strengthened teacher development in the group, encouraging new skills for the teachers.

Inter-professional education was seen in establishing relationships with other courses at the institution, expanding discussions and work between teachers and students, and including actors in the process. The movement between art and academic technique took place over a space that had been jointly created and with bilateral gains.

The importance of including simulation in health teaching was evident from the words of both the teachers and the actors as a factor capable of providing the changes and reflections required when training health professionals.

The simulation continues in the clinical skills, with more scenarios. Other studies should happen better to analyze the teaching learning process in this model.

Author contributions

Competing interests

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