



WHITE PAPER:

BUILDING EMPATHY IN HEALTHCARE STUDENTS USING SIMULATION



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INTRODUCTION

One of the most important soft skills needed for future healthcare professionals, empathy is often considered the ability to put oneself in another's shoes and respectfully seek to understand their perspective. It involves active listening, respect for patients, and a desire to work with them to achieve their health goals, rather than dismiss their non-expert opinions.¹

In this white paper, we'll explore why empathy is such a crucial skill for healthcare providers to learn, how healthcare simulation can play a significant role in instilling empathy in learners, and methods and examples for bringing empathy-focused simulations into the classroom.

EMPATHY IN THE CLASSROOM,

EMPATHY IN THE EXAM ROOM.

Social psychologists typically view empathy as having two sides, the first being emotional empathy, which consists of the three following components, according to the Encyclopedia of Social Psychology:

“The first is feeling the same emotion as another person...The second component, personal distress, refers to one’s own feelings of distress in response to perceiving another’s plight...The third emotional component, feeling compassion for another person, is the one most frequently associated with the study of empathy in psychology.”²

While compassion is certainly a desirable trait in healthcare students, the purpose of this paper is to discuss the other side of empathy that researchers of social psychology have identified – cognitive empathy.

Cognitive empathy, concerned with one’s ability to ascertain and appreciate what another person is feeling, is identified by researchers as a type of skill that can be learned and improved. This is excellent news for healthcare educators looking to instill their students with the knowledge and experience of competent, thoughtful, and understanding practitioners.

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WHY EDUCATE ON EMPATHY?

Employing empathy-building exercises in healthcare education can be a challenge, but it is a vital and worthwhile undertaking. It is not something students can get from textbooks or mere classroom instruction. Bhavana Aitha, a nursing student at the University of Delaware, encourages healthcare students to find ways to participate in simulated scenarios to build empathy.

“We must remain in tune with human connection in order to form lasting and trusting relationships with our patients and with fellow health care team members,” Aitha writes. “Only then will we be able to provide the highest quality care for our patients, who deserve that, and so much more.”³

Further, as Jill Litman writes in Berkeley Public Health’s, *The Public Health Advocate*,

“There is a positive association between increased empathy in a clinical setting and a number of advantages, including diagnostic accuracy, psychological and pharmacological interventions in psychiatry, and ‘patient enablement,’ or the extent to which a patient is capable of understanding and coping with his or her health issues...When empathy is present in patient-doctor relationships, better health outcomes have been reported.”^{4,5,6}

If we acknowledge, then, that empathy is a desirable trait and skill in healthcare practitioners, the question becomes how to incorporate empathy training into healthcare education – and how to measure that training’s effectiveness.

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EFFECTIVE EDUCATION ON EMPATHY

Researchers at the Center for Research in Medical Education and Health Care at Thomas Jefferson University developed the Jefferson Scale of Empathy (JSE), “to measure empathy in physicians, and other health professionals involved in patient care in a clinical setting; as well as students studying medicine and other forms of health care in preparation for working in a clinical setting.”⁷

The JSE has been permitted for use in 85 countries, and has been translated into 56 languages, and versions intended for the assessment of students include the S-version for medical students and the HPS-version for health professions students involved in patient care such as nurses, dentists, pharmacists, and clinical psychologists.

In the context of patient care, the JSE defines empathy as, “predominantly a cognitive attribute that involves an understanding of patients’ concerns, the capacity to communicate this understanding, and an intention to help.”⁸

Citing this definition, medical student Mazie Tsang therefore concludes that in order to properly teach empathy in healthcare education, “...teaching empathy must address two important aspects: the physicians’ understanding of patient concerns and

their ability to convey to the patient this understanding and compassion.”⁹

Writing of her experience as a medical student at John. A Burns School of Medicine, Tsang goes on to describe the various techniques and teaching modalities she found to be most effective in her schooling. She details first the instruction and practice of proper communication techniques, second an assignment of writing a narrative on personal illness, third the participation of students in simulated experiences of medical care, and lastly an emphasis on self-care.

When implementing empathy-focused education in your classroom, consider a variety of teaching modalities. Varying instruction methods can give students a more well-rounded understanding of the topic and can meet different students where they are with instruction that is effective for different learning styles.

Methods for empathy education include in-class activities done in partners or peer groups, lectures on effective listening and communication techniques, and simulation scenarios involving students, simulated participants (SPs), and the use of simulators and manikins.

THE ROLE OF SIMULATION IN BUILDING EMPATHY

Practicing and learning empathy using manikins and simulators may seem counterintuitive. If empathy is, as discussed in the previous section, “the ability to respectfully seek to understand another’s perspective,” how then are students expected to seek to understand the perspective of a product made of plastic?

This question has been posed to educators often in recent years, and it remains an important factor to consider when attempting to integrate lessons on empathy into a simulation curriculum.

In 2016, Sue Dean, MA, RN, Claire Williams, MA, and Mark Balnaves, PhD, published an editorial article titled, “Living dolls and nurses without empathy,” in the *Journal of Advanced Nursing* that urged nurses to, “acknowledge the limitations of mannequins in the education of nurses, particularly in the area of empathy.”¹²

Canadian educators Judy AK Bornais, Karyn Taplay, Timothy Willett, and Elizabeth Horsley responded with a three-part argument in defense of the use of simulation as a legitimate method for educating students on empathy.¹³

In their article, Bornais, Taplay and Willett identify simulation as, “the technique of emulating something real for the sake of education or quality improvement,” and they note that there are several different modalities of simulation, clarifying:

“What is critically important to realize is that simulation as a pedagogy is far broader than simply using high-fidelity manikins. Standardized patients, role-playing, computer-based/virtual simulations, videos, task trainers, and mock environments – alone or in combination – are some other modalities that may be employed.”

“Not only does evidence support that simulation using high-fidelity manikins in undergraduate nursing students yields significant improvements in psychomotor skills, but it also suggests that with only slightly enhanced technology, students’ ability to connect and empathize with manikins can be increased.”

Bornais, Taplay, and Willett argue that, “a well planned simulation can, in fact, expose students to the construct of empathy.” They stress that educators must carefully consider the outcomes they desire when choosing which modality to run their simulation in, and plan an in-depth debriefing session to follow the simulation with questions focusing on the, “emotions and reflections of the students.”

A similar conclusion was made in a 2018 doctoral dissertation for Walden University by Dawn L. Reiss titled, “Effects of Simulated Clinical Experiences on Empathy, Self-confidence, and Satisfaction in Nursing Students,” where Reiss found that, “Positive social change through prioritizing nursing students’ empathetic communication in patient care may be enhanced in the simulated clinical environment with various approaches.”¹⁴

Not only does evidence support that simulation using high-fidelity manikins in undergraduate nursing students yields significant improvements in psychomotor skills¹⁵, but it also suggests that with only slightly enhanced technology, students’ ability to connect and empathize with manikins can be increased.¹⁶

PRACTICAL EXERCISE: Minute Conversations

One key to creating empathy is the art of active listening. An exercise out of Indiana University of Pennsylvania (IUP) guides participants through three rounds of one-minute conversations. Rachel DeSoto-Jackson adapted it for her course The Performance of Caring, part of the Simulated Patient and Applied Theater Ensemble. Partners discuss situations in three one-minute rounds, with one partner talking, and the other refraining from interruption or responding either verbally or non-verbally. Then the partners switch roles. After three rounds, they discuss what was easy about listening, what was challenging, and how they felt empathy for their partner.¹⁰

Another active listening exercise asks students to pair up and talk to each other about their academic workload and how they feel about it. They should practice listening fully to their partner and ask clarifying questions.

These exercises should end with partners understanding each other’s perspectives. By advancing humanism in the classroom, future healthcare professionals will carry these practices into the clinic, creating empathy with patients as well as a respectful and compassionate relationship among members of the healthcare team.



THE USE OF SIMULATED PARTICIPANTS AND LIFELIKE MANIKINS AS EMPATHY BUILDING TOOLS

Some of the most used simulation modalities are simulated participants (sometimes called standardized participants or simulated patients, referred to here simply as SPs) and lifelike manikins, simulators, and task trainers.

SPs are actors, students, or other participants role-playing the part of a patient, patient's family member, or bystander for the purpose of increased realism and improvisational practice for the learner. The use of SPs in empathy-focused scenarios has proven effective in past studies, particularly when healthcare students themselves role-play as patients.^{17,18, 19}

Utilizing paid and trained actors – or even just the drama department of your local university – can be quite effective as well. One 2014 study, which examined the impact of simulated medical consultations using standardized patients on the empathy levels of students in medical school in Brazil, concluded, “Although the study results were obtained via self-report – a limitation – they suggest that the effective simulation of medical consultations with SPs may improve medical students’ empathy levels.”¹⁸

While SPs are terrific simulation resources, and the modality has distinct advantages, manikins and simulators fill in gaps and provide advanced skills training that SPs simply cannot.

For example, simulators and manikins provide the opportunity for students to hone psychomotor and clinical skills while simultaneously practicing empathetic patient consultation, assessment, and care. While there are some wearable task trainers that can be worn by SPs, it is rare that a student will be able to effectively practice a full range of clinical skills on an SP without resorting to miming actions or improperly or incompletely performing a skill.

Additionally, when schools are participating in physical distancing for infection control purposes, scenarios incorporating manikins may be more appropriate, as manikins can be effectively disinfected and sanitized between uses, and barrier screens can be set up to distance learners from peers and instructors.

While demonstrating empathy toward SPs may feel more natural for your students at first,

research has found that students can still gain valuable empathy lessons from interacting with a manikin. In Reiss's 2018 Walden University study, outcomes of students who had completed simulations using high-fidelity manikins and simulators were compared to students who had completed simulations with SPs, and the study concluded, "Results revealed there were no significant differences in students' empathy levels, self-confidence, and satisfaction."¹⁵

Further, a study published in 2016 found that a few simple additions to a simulation scenario with a manikin enhanced students' empathetic learning outcomes. By exposing students to short case study vignettes that featured actors portraying patients prior to their laboratory class, then dressing the manikins using props and clothing that were used by the actors in the vignettes, the study concluded, "these measures increased students ability to suspend disbelief, feel connected to, and approach the manikins in a more understanding and empathetic fashion."¹⁶

"When schools are participating in physical distancing for infection control purposes, scenarios incorporating manikins may be more appropriate, as manikins can be effectively disinfected and sanitized between uses, and barrier screens can be set up to distance learners from peers and instructors."



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RUNNING SIMULATIONS FOR COMPASSIONATE GERIATRIC AND END OF LIFE CARE

Nowhere are empathy and realistic simulation more important than when instructors are creating end-of-life (EOL) scenarios. As people age, health issues become more complex. Older patients are vulnerable to more illnesses, often on several types of medication, and mobility and personal care become more challenging. The elder population is more vulnerable to falls, skin tears, poor hygiene, and out-of-hospital emergencies.

Using simulation to portray these situations gives learners the opportunity to work through their feelings surrounding death and dying, so they can be more present when they encounter actual patients who are near death.

Elder care and hospice are two areas where simulations that emphasize compassion and empathy are vital to learners. Simulation offers healthcare workers the opportunity to work through the needs and challenges of this population.

Simulation supporting education for EOL care does the following:²⁰

- Provides a safe environment to conduct EOL assessment and planning
- Elicits student attitudes toward EOL situations
- Improves communication, critical thinking, and nursing skills

The emotional state and level of preparedness of students needs to be considered when attempting to introduce death into simulation scenarios. Death scenarios are controversial in simulation education, but a proper prebrief and debrief can help students know what to expect and process emotions afterward. Sudden death scenarios are not recommended, especially without any prebriefing.

Suzie Kardong-Edgren, RN, ANEF, CHSE, says, “There seems to be an emerging consensus of opinion that the manikin should not be killed [by caregiver error] or allowed to die unless that is the objective of the scenario and all learners are aware the this could occur.” The emotional impact of death may result in difficulty in processing information and reduced learning.

“Using simulation to portray these situations gives learners the opportunity to work through their feelings surrounding death and dying, so they can be more present when they encounter actual patients who are near death.”

Especially if an instructor is unaware of learners grieving events outside of the classroom, retraumatizing them through simulated death could be a serious misstep.²¹

When designing an EOL or geriatric care simulation, providing advanced realism with a geriatric manikin and sensitive, empathy-building scenarios, is one way for educators to support students going into geriatric health care.²²

Many educators have found that enhancing realism in geriatric care scenarios can enhance students' ability to, "communicate empathetically with older adults."²³

Ways to enhance realism and connection with manikins include, as was found in the study that utilized vignettes, distinct characteristics that help learners connect human features to the manikin, such as wigs and textured skin.

For example, the Nasco Healthcare TERi[™] Androgynous Geriatric Trainer (pictured below), in addition to enabling realistic, comprehensive geriatric clinical training across a variety of skills, also features soft, silicone skin, fully-articulated joints, is weight-distributed for realism, and can be customized with wigs. In this way, Nasco is supporting realistic and comprehensive elder care education in a way that can engage and build empathy in learners.





CONCLUSION

The need for compassionate, competent healthcare providers is ever-growing. As more technologies emerge, providing the opportunity to create realistic, lifelike experiences during healthcare simulation, educators must remember to incorporate empathy into their learning interventions. Curriculums, scenario goals, and debriefing evaluations all must be designed in order to properly track not only clinical skills, but empathetic communication skills as well.

At all times, educators must keep in mind the outcomes they seek to achieve with their simulation in order to choose the modality and learning interventions that are appropriate for their classes, students, and scenarios. As always, while the healthcare educator's task is not easy, it is worthwhile. Educating compassionate, empathetic and skilled practitioners is a goal that will benefit both healthcare professionals and future patients for years to come.

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