

## Why Medical Simulation?

**Type:** Short Communication

**Received:** April 10, 2023

**Published:** April 18, 2023

**Citation:**

Pranjal Konwar. "Why Medical Simulation?". PriMera Scientific Surgical Research and Practice 1.5 (2023): 34-35.

**Copyright:**

© 2023 Pranjal Konwar. This is an open-access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

**Pranjal Konwar\***

*APGDEC, BSC, AHA Instructor, PHTLS Advance Provider, ToT BDLA & ADLS, Consultant Medical Simulation Education and Consultant Emergency Medical Service, India*

**\*Corresponding Author:** Pranjal Konwar, APGDEC, BSC, AHA Instructor, PHTLS Advance Provider, ToT BDLA & ADLS, Consultant Medical Simulation Education and Consultant Emergency Medical Service, India.

Simulation can be used to resemble existing curricular material. The simulated scenarios are realistic enough to engage the students emotionally, thus providing a unique learning experience, where the high-fidelity simulator "patient" actually talks, breathes, blinks, and moves like a real patient. Simulation can be adapted to accommodate the need of various medical specialties such as anesthesia, emergency medicine and trauma, intensive care medicine, obstetrics, pediatrics, neurology and radiology as well as for the use of other professionals such as nurses, paramedics, and respiratory therapists. There are different simulation products available. An ideal simulation training center must have "Physical Simulators" and "Virtual Simulator". Simulation laboratories are quite costly. A single high-fidelity physical simulator with its monitoring system and other necessary equipment may cost up to \$200 000. Virtual Simulators can be cost effective as per training requirements. In addition, synthetic body fluids, replacement skins, bandages, syringes and other supplies are necessary to simulate the experience of treating real patients in a real hospital. The ability to practice without risk must be weighed against the cost of this new technology.

Nowadays Simulation Training technology has developed much and I can help in designing cost effective "Simulation Training Centre." Simulation has many advantages, for it results in highly trained medical graduates who are less likely to make life-threatening or costly medical errors. Some of the advantages of simulation are listed in Employing medical simulation techniques can help move medical training from the old "See One, Do One, Teach One" method into a "See One, Practice Many, Do One" model of success. Virtual simulation can be used for clinical judgement training to students. Simulation-based teaching has proved to reduce risks to both patients and learners. It has also proved to be effective in both undergraduate and post graduate education as well as faculty development. Simulation can be used in the primary health care setting to improve confidence in performing life-saving skills, clinical skills, communication skills, and the quality of care for patients with chronic diseases such as diabetes mellitus and bronchial asthma. Such simulators as part task trainers, computer-based systems, virtual reality and the haptic system, simulated patients, simulated environment, and integrated simulators have been also used effectively to assess and evaluate clinical skills. Virtual simulation for Nursing provides students with a realistic, true-to-life clinical experience. The immersive virtual scenarios allow students to engage with 3D patients, testing their ability to recognize and analyse cues through unfolding visual and audio responses and by experiencing lifelike reactions. Students decide what actions to take for Nursing with the system adapting to student-driven decisions so they can see immediate cause and effect, strengthening their clinical judgment skills.

There has been changes from time to time in medical education teaching methodology. Both Clinical Theory and Clinical Rotations is a must for learning students so that they can practice without compromising patient safety. Most of the medical institutions do not have simulation technology. Simulation teaching can be of two types one for teaching Communication, hands on skills and the other is to make clinical judgement. Simulation approach has to be customized as per project or training objectives. In developed medical institutions around the globe the healthcare providers candidates have to complete clinical rotations and simulation learning as well. How many Nursing colleges and medical colleges does have simulation curriculum? For example, In Paramedicine the paramedic licensing exam includes an integrated out-of-hospital simulation scenario where a candidate is required to effectively manage a simulated patient for 15 to 20 minutes. After initial licensing recurring competency assessments are often conducted through simulation activities. These assessments are meant to capture continued competence of providers. Drawing a quality standard on EMS simulation activities is vital since simulation-based assessments are utilized for determining provider competence and workforce readiness. Shortcutting this level of quality can negatively impact providers and ultimately patient safety.

During emergencies, being READY is critical and can save lives. "IMMAST" Institute of Medical and Minimal Access Surgery Training (Mumbai, India) is providing simulation training on surgeries and allied health sectors. It is the only center of its kind in India that offers hands-on training on close to life models, using in-vivo and ex-vivo animal tissue, which perfectly mimic a live patient, in a re-created OT setting with top-of-the-line equipment. The hand-picked faculty at IMMAST enjoys national and international recognition in their respective surgical disciplines, and are bound by their passion for teaching. The center offers a plethora of surgical and medical education courses, spanning 16 surgical super-specialties, with hands-on practice, live transmissions, didactic lectures, and operative videos constituting basic as well as advanced levels of training." Sandor Medicaids Pvt Ltd (India, SARRC Countries) is committed to providing durable, affordable and comprehensive training Manikins and Turnkey Projects for Medical Intuitions that help our Physicians, Nurses and Paramedics to provide worldclass care. Pirogov Anatomy has introduced 3D virtual anatomy with case study for medical students and allied health sciences which is very important for any medical students to make clinical judgement. NMC policy in India makes mandatory that each medical institutions must have 3D anatomy dissection table in every medical college. The decision makers of Medical Institutions and Nursing Institutions need to understand that this is the time not to waste anymore. This is the time to get the resources for better training of Physicians, Nurses and Paramedics for the country. Then only we can hope for better care and patient safety.