

Adoption of Healthcare Simulation as a teaching Pedagogy: Facilitator perspective

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INTRODUCTION:

Clinical Simulation is a technique which amplifies real life experiences with guided ones thus evoking substantial aspects of the real world in an interactive manner. Exposure of medical doctors to live patients for acquiring necessary skills is imperative¹. It is essential that alternative tools of learning should be adopted as patients are becoming more aware and concerned that doctors and medical students are practising and learning skills on them. Thus, bedside teaching is becoming scarce these days as patients are increasingly unwilling to be examined by multiple students. In such cases ensuring patients' well-being is of paramount importance.² As simulation based learning occurs in a controlled environment, it helps improves patient safety and quality of care, prevents or limits errors, minimizes harm to patients, and helps in developing safe, competent health-care professionals.^{3,4}

Simulation has been used as an education method for a wide range of disciplines and finds multiple applications in the fields of nursing, para- medical training, medical professionals training, emergency medicine management, gynaecology and obstetrics, paediatrics, surgical skills etc. In all these fields., the basic tool and principle of Simulation remains the same but is diversified based on the requirements.⁵

Simulation-based learning is not a substitute for real patients in real clinical scenario, but instead a technique for educating and training health-care professionals in both technical and nontechnical skills prior to their exposure of real patients.^{6,7,8}

It has been observed that, though the doctors have a good understanding of medicine, there is lack of clinical skills, problem-solving abilities, and dearth in application of knowledge to patient care, particularly in emergency scenarios. With an emphasis on problem-based learning in clinical simulation, the educator's aim is to establish a long-term, predetermined improvement in the learner's behaviour, acquired skills, and attitudes⁹.

It has been observed that effort is required to harness the surge of enthusiasm for simulation-based educational activities in the health sector¹⁰. New facilitators should focus more on promoting a simulation culture at their workplace by encouraging more of their colleagues to get trained and integrate simulation-based activity into the curriculum.

The success of clinical simulation as a teaching methodology in healthcare shall depend upon the whole hearted acceptance by the providers (educators). The utility of the available technology solely depends on the level of engagement and enthusiasm shown by the educators. The level of utilisation of clinical simulation in our country remains abysmally low.¹¹ The first important step towards adoption of simulation as teaching methodology is to gauge the provider perspective on the opportunities and barriers.

The aim of the present study is to understand the perspective of facilitator in adoption of simulation as a teaching methodology.

METHODS:

The study was conducted amongst 100 Simulation facilitators from across India during a virtual round table discussion.

These facilitators were from various fields including medicine, nursing, paramedics and the group was a mix of junior, mid and senior level facilitators. The discussion lasted for 4 hours and was open-ended covering various aspects of clinical simulation. The data was collected during the month of January 2022. The collected data was transcribed and coded to generate themes pertaining to the subject.

RESULTS & DISCUSSION:

The broad themes that had emerged out of the Round table discussion are as below:

1. Skill Optimization:

Although the facilitators showed a great deal of enthusiasm during master training workshops, most of them agreed to the fact that they lacked the confidence in conducting independent training sessions for learners. The facilitators attributed this lack of confidence to a multitude of factors like lack of regular training, existing academic workload and intimidation by advanced technology. Regular training is essential to build self-efficacy and confidence. Training only in the form of workshops every few months results in lack of retention as simulation is a new subject for them and it needs regular hands-on practice^{15,16,17}. Training boot camps with dedicated hours and posttraining evaluation can help in boosting the knowledge and skill levels of providers¹⁸.

Many participants were of the opinion that simulation sessions were time consuming and that they were unable to take time out of their already busy schedule. It is commonplace in healthcare to have busy schedules. Yet some effort in the short term can lead to exponential improvement in the long run. A possible solution could be to identify faculties with high aptitude for simulation and formulation of a task force with such members. The task force can focus on intensive simulation learning for a few weeks and then can mentor other facilitators by providing support and handholding.¹⁹

Advanced technology is always intimidating. But with the latest simulation technology being extremely user friendly, repetitive practice can help overcome this barrier. These apart, facilitators who are uncomfortable with advanced technology can be utilized for providing training on part task trainers and standardized patient education^{20,21}.

2. Learner Acceptance

The Participants felt that the acceptance level of simulation as a learning tool amongst students was low. They felt that as simulation was vastly different from traditional teaching, the degree to which students would immerse themselves into the scenario cannot be predicted. A section of the participants had a conflicting opinion wherein they observed that learners were receptive to interactive, real-time demonstration. The students would grasp if taught in the right way with simulation based approach^{22,23}.

Effective simulation depends upon the ability of the student to suspend disbelief²⁴. This in turn depends on fidelity, psychological safety, emotional aspects, environmental fidelity to name a few.²⁵ Hence adequate care and planning is required during design and implementation of simulation sessions. This can be achieved by imbedding simulation throughout the curriculum instead of discrete and standalone simulation exercises. This will ensure learners have repetitive practice using simulation, in turn leading to skill transference in real patients.

3. Sparsity of resources:

The overwhelming concern of a majority of participants was the lack of adequate resources to scale up simulation as a day to day tool in academics. The paucity of resources was observed in terms of time, technology and skilled human resources. High fidelity simulation is costly and the investment required in terms of infrastructure and equipment to adequately fulfil learner requirements is enormous. It was a common opinion of all the participants that in the current scenario the availability of technology is disproportionately low compared to the number of learners. Hence, running a clinical simulation has remained an event based tool rather than a day to day teaching methodology.

It is true that scaling up technology is a time consuming and expensive process, yet simulation offers myriad tools like part task trainers and standardized patients which are low cost yet highly effective tools for learning critical skills¹². In the first phase of integrating simulation based education, providers can focus on these tools to acclimatize learners to simulation based andragogy.

Another concern that emerged was with regards to the lack of time available for simulation within the already crowded academic schedule in most healthcare courses as simulation is new for most facilitators and would require significant time for training, session planning and actual execution of the session.

Although there is limited time, it is widely known that session planning and execution require lesser time with regular practice.^{13,14}

CONCLUSION:

The round table discussion raised many important concern of facilitators which can give directions to various educational institutes in implementation of their simulation programmes. Any technology shall remain redundant without the active engagement of facilitators. The benefits of Simulation can reach the learners only when the facilitators are skilled. This can be achieved by attending simulation workshops regularly, working closely with

an experienced facilitator and keeping oneself updated about the new trends in simulation. The present study attempts to suggest simple solutions to various facilitator barriers.

Further large-scale studies can be conducted to reaffirm the same.

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