

PROMOTING, ENABLING AND SUPPORTING SIMULATION-BASED EDUCATION

FOR THE BENEFIT OF PATIENTS

INTRODUCTION

The North West Simulation Education Network (NWSEN) was established in 2010, and with support from NHS NW (now Health Education North West) has steadily grown, so that it now has 950 people registered on its site. There have been numerous national drivers for the increased use of simulation, including Liam Donaldson's report¹ which highlights the need to further develop simulation and simulation faculties. Therefore the network seeks to increase the capacity and capability of simulation throughout the region, with an overall aim of improving patient outcomes and experience.

Simulation is defined as the process which *"recreates a real life task, event or experience, providing a safe learning environment, for the acquisition of skills, knowledge, attitudes and behaviors"*².

SIMULATION NETWORK

In order to establish a NW simulation strategy³ NHS NW formed a community of practice, composed of inter-professional simulation experts across the region, who were organised into workstreams. These workstreams were designed around faculty development, human factors and the care of different patient groups e.g. paediatric patients, surgical patients, and patients in the community. Each workstream presented their work and contributed to the formation of this strategy. The resultant strategy identified the benefits of using simulation in allowing learners to develop skills, behaviours and knowledge, in a safe learning environment and without the potential for harming patients. However it also identified that there were challenges in increasing

the capacity of simulation, partly due to the lack of a regional faculty development program. Therefore such a program has now been developed and run in the North West since the end of 2010. Various network working groups have looked at simulation in specific areas within a multi-professional context, and the network encourages development of regional resources and collaboration, both between NHS organisations and HEIs. It has also developed a Simulation Quality Assurance Framework, with a key focus on patient outcomes and the elements that were identified by the Department of Health Framework on Technology Enhanced learning (TEL).⁴

SUPPORT

The network runs faculty development days and is keen to engage with organisations to identify the potential for simulation, and how this can be achieved. Regional resources and programs are available to help facilitate this. The NWSEN is able to support North West organisations increase simulation delivery by:-

- assisting to identify appropriate areas for the effective application of simulation
- developing an action plan to increase organisational simulation capacity
- undertaking a quality assurance assessment of any current simulation processes
- providing access to regional resources developed for supporting high quality simulation



EDUCATIONAL FOCUS

The network does not focus solely on using advanced patient simulators, but recognises that effective simulation can be undertaken with fewer technical manikins and actors, and within virtual domains, and that the rarest resource is a confident and competent simulation faculty. The NWSN's focus is not on the modality of simulation, rather it is based upon ensuring that simulation is appropriate, effective and evidence-based, and results in demonstrable outcomes.

Simulation needs to be:

- appropriate, evidence-based and facilitated by an experienced faculty. Otherwise, if performed badly simulation it has the potential to be a negative learning event.
- adopted in a coordinated way across organisations, where individuals engaged in simulation are supported and developed.
- performed in a quality-assured manner, with a focus on patient-based outcomes (although a lack of UK wide standards hampers this development).

BENEFITS

- Simulation provides exposure to rarer events and learning, through an experiential process. It can also be used to repeat a task or procedure to gain mastery of the skill through repeated practice.
- It has also been demonstrated to be of use in developing positive behaviours and there is significant interest in the use of simulation to reduce the human errors that are often causative in patient harm events. It has been estimated that human errors are responsible for up to 80% of the errors that occur⁵. Looking at these human errors it has been suggested that 70% are caused by embedded organisational latent errors and 30% from individual errors or violations⁶.
- It enables the identification of latent system-based errors and allows team to be trained and developed in order to become aware of these weaknesses and to use practises that minimise the risk of these occurring.

- Simulation enables a fundamental step to be taken in developing team working, as it allows a whole multi-professional team to be trained together rather than in professional silos. With this type of training then an expert team is produced rather than a team of experts⁷.
- It can be facilitated in a designated learning environment or in-situ in the clinical area. There are advantages and disadvantages to using both types of area, but typically the designated area allows more formal educational sessions to be run, whereas the in-situ ones tend to use shorter sessions and are often used to test and identify latent systems errors which are often contributory in patient harm events.
- Although there is a significant interest in using simulation in secondary health care, there is also potential for its use in primary care, mental health and learning disability.

KEY AIMS OF SIMULATION

Simulation can enable learners to:

- develop workforce skills, knowledge and behaviours, which are evidence-based and result in improved patient safety and patient satisfaction.
- gain experience of life threatening, rare events
- repeatedly practice procedures and situations to enable them to gain mastery
- develop a professional identity, and to develop expert team skills by learning and working in a multi-professional team
- identify and address embedded system errors that are contributory in patient care incidents and errors.
- modify and embed new practices and procedures, physical locations and facilities through simulation testing



NEXT STEPS

There needs to be an organisational group with board representation, which coordinates all simulation activities. This will ensure that it is aligned to the TEL framework and is quality assured, and so that individual faculties are supported and developed.

USEFUL LINKS

www.northwestsimulation.org.uk

REFERENCES

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