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A trust used simulations based on patient case scenarios to help healthcare cadets learn how to practise patient-centred care and improve communication and teamwork.

Using simulation to foster patient-centred care

In this article...

› How simulation was introduced into a training programme for healthcare cadets
› Structure of the one-day pilot programme
› Evaluation of the programme’s impact on knowledge and skills

Author Katherine Robertson is clinical skills manager; Toby Garrity is curriculum development coordinator for simulation; Bethan Maher is simulation and clinical skills technician, all at Pennine Acute Hospitals Trust.


This article reports on a pilot study undertaken to assess the impact of introducing simulation training for healthcare cadets. The aim was to educate cadets in the essentials of patient care by adopting a blended approach to learning, combining theoretical knowledge with the opportunity to practise key skills in a simulated environment to enhance underpinning knowledge.

Although a patient-centred approach to care is not a new concept, the lack of high-quality essential care within parts of the NHS was exposed by the Francis (2013) report. As part of the effort to address these failings, quality of care, patient safety and patient experiences have been made NHS priorities and must be addressed in clinical education as well as practice. Education needs to focus on patient safety and healthcare quality, and communication and teamwork skills (Leape et al, 2009), while human factor training within healthcare should focus on the importance of effective interaction, and the need for excellent communication and situational awareness (Carthey and Clarke, 2009). This article reports on a pilot study in which simulation was used in training for healthcare cadets to enhance their skills in essential patient care.

The healthcare cadet scheme, run by the Skills for Health Academy North West, gives young people aged 16-18 an insight into various career pathways in the NHS while continuing academic or vocational qualifications. Although the past decade has seen a significant increase in the use of simulation technology in teaching to improve patient safety (Scalese et al, 2008), traditionally healthcare cadets have not been able to access structured simulation exercises within a dedicated simulation centre. We believed that introducing a patient-centred approach to care at an early stage in cadets’ health-related education would benefit future clinical practice in those who go on to become qualified health professionals.

The aim of the pilot study was to assess whether a one-day simulation-based programme would:
» Enhance cadets’ communication and interpersonal skills;
» Reinforce the importance of teamwork;
» Underpin their knowledge of the airway, breathing, circulation, disability and exposure (ABCDE) approach;
» Develop a patient-centred approach to care.

Method
The study participants were all 31 cadets working within Pendle Acute Hospitals Trust (PAHT) at the time. They were aged 17-19 years, and two were male and 29 female. They were asked to participate in a one-day programme designed to develop their communication/clinical skills using clinical case scenarios.

Data was collected before and after the simulation-based learning using two...
identical questionnaires containing eight questions assessing the cadets' knowledge of and confidence in communication with patients and the importance of teamwork, enabling us to measure any change within their perceptions. We also designed an assessment framework to be completed by cadets and faculty staff observing a group of cadets working through a case scenario; this gave staff and cadets issues to discuss in debrief sessions held after the simulations. Both the questionnaires and the assessment framework used a Likert scale format for questions; participants were also able to add free text comments. A 1–7 Likert scale was used with one being low and seven being high.

Programme design
Meetings between the clinical skills and simulation team and the cadet clinical educators focused on how simulation could be appropriately built into the cadets' curriculum using specific learning objectives. We produced two essential patient care scenarios, both set in a clinical ward and focusing on communication, teamwork and a systematic approach.

Before starting the programme the cadets completed questionnaire 1 to establish their baseline knowledge (Fig 1). They were then given a scenario and a brief medical history that deliberately omitted relevant information in order to encourage them to communicate and attempt to build a rapport with the patient. Mackway-Jones (2012) stresses the need for health professionals to understand what is happening around them during a clinical incident, as the ability to prioritise actions and anticipate potential problems will ensure a more favourable outcome for the patient.

Both scenarios were designed to show a significant, identifiable deterioration in the patient's condition; in recognition of the cadets' clinical limitations we ensured the treatment needed to respond to the patient's deterioration was simple, basic and required minimal clinical intervention. While the cadets communicated with the patient and among themselves in the simulation, faculty staff could observe their reaction times and situational awareness.

To aid teaching and learning, the programme was modelled on Fleming's (1995) Visual, Auditory, Read/Write, Kinaesthetic (VARK) model. It began with a lecture giving an overview of simulation and the importance of communication within a healthcare setting, followed by an interactive PowerPoint presentation to reinforce the lecture. The cadets were then put into two groups, one of which would participate in a simulation scenario while the other took part in a portfolio-building session with one of the cadet educators. The group doing the simulation split in two, with one half undertaking the simulation scenario and the other observing and conducting a peer assessment. The groups swapped activities to ensure everyone was able to participate in all elements of the day.

The cadets were not expected to "act up" as student nurses or qualified staff but to work within their own role and limitations. Initially, they were asked to attend to the patient's needs, but if the situation escalated beyond their capabilities they could ask for help. The faculty member running the session posed as a senior nurse caring for a different patient in the same clinical setting, enabling the cadets to concentrate on their patient, but giving them someone to ask for help if necessary. They could also use the ward telephone (to be answered by a member of the faculty) if more specialist assistance was needed. Hale and Ahlslager (2011) believe that high-fidelity simulation should be as close to real life as possible to enable learners to become absorbed in the scenario, maximising the learning experience; in order to achieve this, help did not arrive immediately.

Debriefing sessions are a crucial aspect of simulation-based learning (Shinnick et al, 2011), during which significant learning occurs through reflection (Driefuerst, 2009). Both the cadets and teaching staff observing the simulation were asked to fill in assessment frameworks, which focused on teamwork, communication, situational
awareness and ABCDE knowledge. The teaching staff’s assessment framework also included a checklist taken from the cadet curriculum to ensure that debriefing was relevant. During the debriefing each component on the assessment framework was discussed at length, encouraging cadets to express their feelings in a safe and confidential environment.

At the end of the day the cadets were given the second questionnaire to complete in their own time; they were asked to give an honest reflection of the day and to reassess their knowledge. The 31 completed questionnaires were used to determine change in self-assessed competence ratings.

Results
Although the programme included many elements to aid patient care, this study focuses on how communication with the patient, the ABCDE approach and teamwork were used effectively in a patient-centred approach.

Communication with the patient
Suter et al (2009) said health professionals’ ability to promote trust and confidence in the care they give depends on their ability to effectively communicate with patients. The cadets were encouraged to talk to the patient (simulation manikin) and to ask probing questions such as “do you feel alright?” From the outcome of these questions, they formulated a plan while constantly offering reassurance to the patient.

Our results confirmed that the simulation sessions helped to demonstrate to the cadets the importance of communication (Table 1). For example on the first questionnaire the cadets gave a broad spread of scores (2-7), while in the second, the vast majority gave themselves a score of 6 (Fig 2). This shows that the cadets not only showed progression to the facilitators but also were aware of their own improvement in their communication skills and underpinning knowledge.

Demonstrate correct use of the ABCDE approach
The cadets followed a systematic ABCDE approach when assessing the patient to reinforce the importance of addressing one clinical element of care before moving on to the next; this is an effective method for use in initial assessments, irrespective of clinical experience and training (Resuscitation Council UK, 2012). The questionnaires showed a 41% increase in the cadets’ underpinning knowledge of the ABCDE approach (Table 1).

Effective team work
The cadets had to work within teams of four or five to conduct basic clinical assessments of the patient, then determine a treatment plan following a team-centred approach and logical thinking. They concluded that “simple” actions would benefit the patient, such as a change of position. The facilitator ensured all members of each team had an opportunity to voice their opinion on the correct course of treatment, but allowed the group to make a collective final decision.

Recent studies highlight simulation enhances education in essential human care such as LaVelle and McLaughlin (2008) who found “simulation-based education was a well-received, effective strategy to enhance patient safety in ambulatory care”. The second questionnaire asked cadets “How do you believe you have changed your clinical practice as a result of this training?” All said it would change the way they would approach their clinical practice in future. Qualitative data revealed that the cadets felt more “knowledgeable when working with other people” and that they “understood the importance of team work”.

Conclusion
This small-scale study showed that healthcare cadets felt the simulation session enhanced their understanding of essential patient care, and all agreed they would like the opportunity to complete the programme again to demonstrate the improvements in their practice. This highlighted the successful use of simulation in order to promote the effective use of communication within the healthcare setting. The curriculum would benefit from having this as a compulsory session for all cadets.

We believe the simulation session should be used in line with prior and future exploration of human factors and not as a standalone programme, and when used again in future it should be placed with other work dedicated to this aspect of patient care. We also believe that all health-related curricula should be redesigned around a patient-centred approach, with all health professionals being given the opportunity to explore fundamental aspects of patient care within a simulated setting.

| TABLE 1. PRE AND POST-COURSE QUESTIONNAIRE COMPARISON |
|----------------|----------------|----------------|----------------|----------------|
| Questionnaire 1 (pre) (average Likert score) | Questionnaire 2 (post) (average Likert score) | Increase/decrease | Improvement (%) |
| Communication | 4.5 | 5.8 | +1.3 | 29 |
| Teamwork | 5.3 | 5.7 | +0.4 | 75 |
| ABCDE approach | 4.1 | 5.8 | +1.7 | 41 |

References