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Core skills that student nurses need to work on
The value of simulation exercises in nurse training
Examples of simulated clinical scenarios

5 key points

1. Final-year student nurses need to be prepared to deal with the management challenges they will encounter in practice.

2. Simulation has been shown to create positive learning experiences and improve reasoning and analysis skills.

3. Live simulation exercises are a safe way of testing responses to untoward events.

4. Simulated clinical scenarios played out by student nurses and faculty staff can be a rich source of learning material.

5. Recording simulation exercises with audiovisual tools allows a larger number of students to benefit through live broadcast and/or replay.

Author

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Abstract


Final-year student nurses need to hone their management skills before they qualify as registered nurses. Simulation is a safe way for them to work on how they respond to unexpected events. A group of final-year student nurses at the University of Bradford took part in a simulation exercise that recreated clinical scenarios likely to crop up in practice. This article highlights the benefits of simulation reported in the literature and then describes the simulation exercise organised at the University of Bradford, showing how it provided a rich learning experience.

Sending newly qualified nurses straight into practice without first giving them the opportunity to test their assessment and management skills exposes them – and their patients – to unnecessary risk. Once they are in a real-life situation, they will need to be able to communicate, motivate, delegate, prioritise, make decisions and respond to change. Exercising these skills in a simulated clinical environment can help them work on disentangling the many elements of their future role without putting anyone at risk.

The value of simulation

Final-year student nurses need to be prepared for the demands that are likely to be made on them when they start working as qualified nurses. Trial and error is ideally suited to acquiring management skills but, as Li (2016) explained, “we cannot learn by trial and error in the actual real clinical setting”. Immersing student nurses in live simulation exercises can be a good way of testing their responses to untoward events and give them an appreciation of what they will encounter in practice. They can experience first-hand, but in a safe environment, what it is like to be involved in making effective decisions and how to deal with errors.

According to Ericsson et al (2006), the goal of practice is mastery of the task, coupled with acquisition of the cognitive knowledge that allows one to anticipate problems or decide on the next steps. Levett-Jones et al (2015) highlighted how participating in simulation can enhance technical and non-technical skills. Vincent (2010) stressed the importance of reporting errors and learning from them: simulation allows students to make mistakes and engage with their peers to draw lessons. Tella et al (2015) reported that student nurses who took part in their study felt that training in patient safety skills was more relevant if conducted in clinical settings. Thomas et al (2015) used Benner’s (1984) ‘novice-to-expert’ model of expertise in nursing, applying its different levels of experience to a simulation educator resource.

Larue et al (2015) reflected on how to respond to the challenge of training more nurses when there is a shortage of suitably skilled and experienced teachers and a lack of clinical settings that can accommodate students. Simulation could be part of the answer. Higher education providers need to motivate teachers to harness the...
benefits of the technique, which include the ability to re-use recorded exercises for learning.

Hayes et al (2015) contended that well planned simulation experiences can allow students to encounter authentic clinical cases and build their critical thinking and reasoning. Simulation can help students put themselves into service users’ shoes. It can foster empathy and appreciation of other people’s skills. Finally, we have found it to be both cost-effective and time-efficient.

A simulation exercise

In 2015 we organised a simulation exercise for the cohort of final-year undergraduate nursing students, both adult and mental health, at the Faculty of Health Studies of the University of Bradford. All the students in the year group took part in scenarios involving various unplanned management challenges. Those not taking part in a particular scenario watched the simulations broadcast live on a screen. The students’ perceived shortcomings had been identified through personal discussions with them and feedback from colleagues. Our aims were to get the students to reflect on their competencies, and to evaluate the impact of exposing students to reflect on their competencies, and to evaluate the impact of exposing students to roles and scenarios.

Roles and scenarios

Roles were suggested to students, who could swap with a peer if they wanted to. They included:

- A newly qualified staff nurse in charge of four patients and ancillary staff and/or students;
- A student doing a placement;
- A healthcare assistant;
- Patients with various mental and physical health problems.

Students who played patient roles received a brief created from a set of predetermined events. Some beds in the wards had manikins simulating patients. Faculty staff taking part included people working in non-clinical roles, who were given prompt sheets about the conditions and disease trajectory of simulated patients. Faculty staff played roles such as:

- An angry relative;
- A manager informing ward staff of a change of events;
- Someone calling the ward, such as a doctor, relative, staff from the catering department or staff from the switchboard.

Scenarios devised for the exercise contained a range of challenges that newly qualified nurses are likely to be faced with. There were five loosely-scripted scenarios, which faculty members were encouraged to creatively modify in situ:

- A patient (in this case a manikin) has a cardiac arrest, which is witnessed by other patients;
- An unsettled patient is being very demanding;
- A rambling person calls the ward at a very busy time;
- A drug error has occurred either after a wrong prescription, or after a doctor’s call requesting a drug to be administered to a patient without prescription;
- An angry relative. (This scenario was videorecorded and proved to be an excellent example of distracting demands on the nurse in charge, as well as demonstrating how difficult it can be to placate an angry relative.)

Manikins were used to imitate patients in some of the simulation exercises.

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How the simulation worked

The sessions were held over a two-day period, with a total of eight sessions over the two days followed immediately by a plenary feedback session involving all students. Students played one role during the scenarios as delegated by staff.

Each session, lasting approximately 15 minutes, was recorded audiovisually with students’ permission. If they felt uncomfortable being recorded, they could choose to be observers instead (but none of them did). The simulation exercises were relayed to the rest of the cohort on a screen in a separate room, with a faculty member prompting them to reflect on what they were seeing and reassembling questions to those taking part in the role play.

Debriefing and feedback

Afterwards, all students participated in a debriefing and feedback session. Relevant parts of the recorded scenarios were replayed, providing large amounts of material for fruitful discussion. Replays were useful to underline certain points and review students’ actions. Students who had watched the exercise offered feedback to their peers. The debriefing session, facilitated by a faculty member who had been involved in the simulation, produced a lively debate on how students’ responses to the different situations could be improved on. Some students demonstrated shortfalls in skills or were seen to behave inappropriately, for example when administering a drug without prescription. This was dealt with in the plenary feedback session and was often raised by peers as a matter for concern. Often when reviewing their performance, those responsible were quick to recognise their errors. Students raised questions that might not have arisen in other types of learning activities. The material was a rich source for reflecting on roles and responsibilities (Lowry, 2016).

Lessons learned

Before the simulation, students had been learning a range of core skills for practice. The exercise gave them a chance to draw these skills together and gauge their ability at making sense of situations, deciding how best to allocate resources, and knowing when and where to refer a difficult case.

After the simulation, all of the 130 students who took part were asked to reply to an online, anonymous mixed-method survey. This survey had been put together with advice from academic colleagues and approved by the university’s research
Innovation

BOX 1. LIKERT-SCALE SURVEY QUESTIONS

1. Confidence as prospective staff nurse
   - I feel confident in my ability to manage other staff in a clinical setting
   - I feel concerned at the prospect of having to manage other members of staff in a clinical setting
   - I feel I would be able to delegate effectively to other members of staff

2. Ability to respond effectively to change
   - I feel prepared for dealing with new and unfamiliar situations
   - I am concerned about how well I would perform in a new role
   - I feel confident in my ability to delegate work to others even when events change

3. Knowledge of professional values
   - I understand the principal ethical implications for managing in a clinical environment
   - My understanding of relevant codes of practice is up-to-date
   - I understand the legal principles that guide my management role

4. Communication skills
   - I can effectively communicate information to others when in a management role
   - I recognise and respond appropriately to the communication needs of others
   - I communicate effectively under pressure

5. Ability to lead a team
   - I feel able to motivate others in the team
   - I feel able to respond appropriately and lead in a difficult situation
   - I feel prepared to manage the health and safety requirements within a team leader role

6. Usefulness of simulation for learning
   - I feel enthusiastic about simulation for learning
   - Simulation scenarios enable effective learning from others
   - There should be more use of simulation in preparation for becoming registered

ethics panel. It comprised six questions based on NMC (2015) standards for professional competencies, which students had to rate on the five-point Likert scale (see Box 1), as well as free-text questions. We obtained 128 complete responses, of which three could not be disseminated (as students had indicated that they did not want their responses used for research or publication). The low response rate was possibly due to the fact that the survey timing coincided with an assignment.

Almost all students said the exercise had been a timely reminder of what they would soon face in practice. Both shortcomings and examples of good practice could be identified. Observing and offering constructive feedback to peers were also found to be useful. Students felt they had become more attuned to dealing with the various challenges that can arise on a ward. All agreed that this was a safe exercise, but also felt that it had stretched them further than expected. It had encouraged them to be self-critical and assess the performances of peers.

When asked to suggest ways of improving the simulation, students called for more simulation exercises. Some expressed the wish to have field-specific simulations, but others were happy with the format that had been used. Students also said they would like to adopt more than one role, work in smaller groups to gain better feedback, know the roles beforehand so they could prepare themselves and focus on one single scenario rather than a complex series of events.

Plans for the future

Through exposure to clinical experiences in a safe environment, simulation has been shown to create positive learning experiences and improve reasoning and analysis skills. These simulation exercises at Bradford University were a new initiative, which involved some negotiating with colleagues to ensure adequate staffing levels. All staff engaged enthusiastically and said they found the exercise stimulating and beneficial for learning. Students were also positive about the approach. Recording the simulations provided material for future learning.

Future plans are to use this learning method more often and staff will work on how best to apply it across the curriculum. There is increased interest in using simulation across year group and fields as a result of the success of these exercises. There are also plans to conduct the survey before and after the simulation exercise, in order to assess its effect on students’ perceptions of their confidence and competence.

References


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