Experiences of using simulation in dementia education


Abstract
This article describes the development of a simulation training day for multidisciplinary teams (MDTs) working on acute adult wards with the aim of improving their confidence in supporting people with dementia who are distressed.

Recommendations are made for those who may be interested in delivering simulation training in their area of practice. Registered nurses, non-registered support workers and occupational therapists experienced in dementia care took part in a one-day simulation training pilot session that included three ‘skill stations’ with three patient simulation scenarios.

A session at the end of the day was used to generate qualitative feedback and develop a strategy to advance this style of teaching. Feedback highlighted the need for further development of the skill stations and scenarios.

The pilot showed that simulation training works well from an MDT perspective, but the content requires careful consideration in terms of stretching participants’ abilities without causing high levels of anxiety.

Keywords
acute hospitals, dementia, education, multidisciplinary, older people, simulation training

ADMISSION TO hospital can be a frightening experience for anyone, not least those with dementia. The experience of hospital admission for people with dementia and their families can be distressing (Alzheimer’s Society 2009). The strange sights and sounds of a hospital ward, acute illness, painful conditions and interventions may result in marked changes in their behaviours, which are termed ‘behaviours of distress’.

In response to the well-documented growth in the number of people with dementia worldwide and the increasing number admitted to acute hospitals (Sampson et al 2009), several strategic documents have been published (Department of Health (DH) 2009, 2010, 2015a). All emphasise the need for a skilled and informed workforce. The DH (2015b) mandated Health Education England (HEE) to develop a tiered programme of dementia training for all NHS staff (Skills for Health et al 2015):

» Tier 1: awareness – basic essential competencies relevant to all healthcare professionals.

» Tier 2: frequent contact – competencies for healthcare professionals who are in regular contact with people who have dementia.

» Tier 3: extensive contact – competencies for healthcare professionals working intensively with people who have dementia and healthcare professionals who specialise in dementia care.

While this programme of training specified the content of the three tiers, the model of delivery was left to organisations’ discretion.

Dementia training in acute hospitals has become a priority in light of the mandate to HEE (DH 2015b, Skills for Health et al 2015), several high-profile reports on the poor care received by people with dementia (Alzheimer’s Society 2009, National Audit Office 2010, Royal College of Nursing 2011, Francis 2013) and the lack of knowledge in this area reported by nurses, therapists and doctors (Cowdell 2010, Royal College of Psychiatrists 2011).

Simulation-based education
Strong national drivers for the development of quality dementia training and changing practice environments require new models for training healthcare professionals (DH 2015a, Skills for Health et al 2015, Dementia Action Alliance 2017). In light of a reduction in contact hours for postgraduate training, efficiency savings and reduced funding, robust
evidence must be produced to demonstrate the significant economic and organisational value of training.

To ensure that there is an appropriately trained workforce, review and evaluation of the current provision in a large London teaching hospital was identified as a priority. The most formal education delivered at the time comprised a choice of a one- or two-day classroom-based programme using training modules developed by NHS England London Region (Loveday and Watt 2014).

The programme contained limited didactic information, incorporating group learning, asking participants to review and discuss case studies and take part in role play, and was in line with HEE’s tier 2 training (Skills for Health et al 2015). This training was highly rated in terms of content and delivery. However, observations of clinical practice indicated that despite the two-day training the nurses did not possess the self-confidence to put into practice their new learning, particularly when patients were experiencing distress.

The decision was therefore taken to change the design of the training programme to a two-day course incorporating one day of classroom-based learning including case studies and role play, followed by one day of simulation training developed in-house. Simulation-based education has gained popularity over the past decade. Empirical evidence supports its application in healthcare, with positive effects seen on clinician behaviour and moderate effects on patient outcomes (Cook et al 2011).

The purpose of simulation is to imitate reality in a safe environment while offering skills-based clinical experience to consolidate learning and develop competence in practice (Cant and Cooper 2010). Learners are provided with the opportunity to engage in what are perceived as real-world problems, organise and link information together in a meaningful way, and subsequently transfer this new knowledge to the clinical setting (Cook and McDonald 2008).

In creating such a curriculum, instructional and evaluation methods must be underpinned by an appropriate pedagogical theoretical framework. This programme drew on social constructivism as it examined the development of jointly constructed understandings while using Kolb’s (1984) experiential learning cycle to frame the process of learning (Figure 1).

**Simulation training pilot**

The aims of the pilot simulation training day were to evaluate:

» How applicable and acceptable the design was to the participants.

» To what extent simulation training met the participants’ needs in terms of developing their confidence in supporting people with dementia who were distressed.

The pilot day took place with experienced multidisciplinary team (MDT) members who could give constructive feedback on their learning experience and contribute to how the day could be improved. The specific learning outcomes were to:

» Gain a greater understanding of person-centred care for patients with dementia.

» Understand that when people with dementia express different beliefs about what is real they are communicating important information about their feelings and needs.

» Understand that there are many different reasons that can contribute to behaviours of distress for someone with dementia and these behaviours are not usually symptoms of dementia, but are triggered by a range of factors.

**Method**

The pilot day took place with 12 staff from the older people’s ward and acute medical unit, comprising six registered nurses, two nursing assistants, two therapy assistants and two occupational therapists. All the participants had completed one day of classroom-based training before attending the pilot day.

At the beginning and end of the day a ‘blob tree’ (Wilson and Long 2010) was used to determine the participants’ levels of confidence. A blob tree is a tool without words developed in the 1980s to facilitate communication with

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**Figure 1. Kolb’s learning cycle**

Concrete Experience
( doing / having an experience)

Active Experimentation
( planning / trying out what you have learned)

Abstract Conceptualisation
( concluding / learning from the experience)

Reflective Observation
( reviewing / reflecting on the experience)

(Kolb 1984)
young people and adults who find reading difficult. Each participant is given an A4-size piece of paper with a large tree in the centre, representing an organisation, a family or, in this case, a situation. The blobs are outlines of people, neither male nor female, that take up various positions in or about the tree, alone or in pairs. The blobs communicate using feelings and body language. Each participant is asked to imagine they are sitting at the bottom of the tree and, in the context of dementia care, consider which blob they most identify with and how this feels.

As an introduction to simulation and the debriefings that would follow each simulation scenario, episode 3 of Barbara’s Story (Guy’s and St Thomas’ NHS Foundation Trust (GSTT) 2012) was viewed and debriefed with the whole group. Barbara’s Story is a series of six films made by nurses at GSTT to raise awareness of dementia among staff.

Three teams of four then rotated through each of the three ‘skill stations’, which were opportunities to practise a skill in small groups led by a facilitator (Table 1):

- The day begins: the experience of being an older person.
- Visiting time: communication and language.
- Understanding and responding to walking.

The skill stations were designed to expose participants to the strong feelings that people with dementia can experience every day.

In the afternoon each team participated in a scenario while the rest of the group watched through a video link to enable them to take part in the debrief. An actor played the role of a different patient in each of the three scenarios, which each lasted for six to eight minutes and covered different topics.

The debriefs and discussions were facilitated by the older people’s clinical nurse specialists (CNSs) and focused on reflective practice (Fanning and Gaba 2007). The training day concluded with another look at the blob tree to establish any change in confidence levels.

**Evaluation**

Despite being an experienced group who had been invited to attend to help develop the training, most participants thought their confidence had improved as a result and that the day would be enjoyed by their respective teams and would benefit them.

In the discussions that followed with the CNSs and the participants it became clear that the skill stations needed further development. In particular, skill station 1 was thought to be not challenging enough: the participants were given glasses to distort their vision, wore gloves with popcorn in the tips and were asked to get dressed and clean their teeth with a pencil in place of a toothbrush.

The group thought a more intricate task would be more effective in producing the feelings of frustration experienced by people with dementia, for example, filling a dosette box with medication. This task was incorporated in the revised version of skill station 1 shown in Table 1.

The scenarios were critiqued by the participants and the actor. They found them to be realistic with good detail, but felt they would have benefited from being more complex. The decision had been made to keep the teams of four together throughout the day to reduce their anxiety levels, but it was clear that the scenarios would have run better with two participants, as two of the four team members found themselves with little to contribute. In the real world, it would be unlikely this number of staff would be available to provide this level of support.

After three simulation training days, the scenarios have been adapted to keep them relevant to participants’ clinical roles. However, rather than have different characters for each scenario, the character of Doreen Browne (not a real patient) has been developed (see case study). The scenarios develop through the course of a day in hospital, allowing the participants to get to know more about Mrs Browne and her needs. This provides an opportunity for the participants to demonstrate their understanding of person-centred care along with the importance of continuity of care.

The training, therefore, involves each group spending 30 minutes on each skill station. In the afternoon each team participated in a scenario while the rest of the group watched through a video link to enable them to take part in the debrief. An actor played the role of a different patient in each of the three scenarios, which each lasted for six to eight minutes and covered different topics.

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**Online archive**

For related information, visit nursingolderpeople.com and search using the keywords.
TABLE I. The skill stations

<table>
<thead>
<tr>
<th>Station</th>
<th>Skill station</th>
<th>Estimated time</th>
<th>Background</th>
<th>Objectives</th>
<th>Props</th>
<th>Scenario</th>
<th>Instructions</th>
<th>Discussion points</th>
<th>Take-home message</th>
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<tbody>
<tr>
<td>1</td>
<td>The day begins: the experience of being an older person</td>
<td>30 minutes</td>
<td>Helping a person with dementia maintain his or her appearance and self-care can promote positive self-esteem. As the disease progresses beyond the early stages, choosing and putting on clothes can be frustrating. The person may not use good judgement in dressing or may be overwhelmed by the task itself. Plan plenty of time when dressing or grooming someone with Alzheimer’s disease. Rushing the person can cause anxiety and frustration.</td>
<td>After this station participants should be able to:</td>
<td>Four pairs of vision distortion glasses, gloves, popcorn, paper tape, eight medicine bottles with child-safe lids, four different types of medication and two dosette boxes. The glasses, gloves, popcorn and tape are used because many older people with dementia have some of the same health challenges common in the general older population. These challenges – vision, hearing, neuropathy and arthritis – combined with dementia make accomplishing activities of daily living even more difficult.</td>
<td>You are playing the role of a person with Alzheimer’s disease or some other type of dementia. You also have neuropathy in your hands, arthritis in your fingers and some visual and hearing problems. You are at home with your partner, who also has these health problems. You are trying to fill your dosette box with medication that has been prescribed by your GP. Your partner is trying to help you.</td>
<td>Place one or two pieces of unpopped popcorn across the first joint of the index finger. Then, loosely tape the finger and thumb with paper tape. This simulates arthritis. Dress the ‘patient’ and the partner with vision distortion glasses and gloves. The gloves will not fit correctly because you have given them two for the same hand. Fill the medicine box as follows:</td>
<td>Questions to help students empathise with patients.</td>
<td>People with dementia usually experience a progressive decline in their ability to accomplish even basic activities of daily living, such as dressing, grooming and hygiene. They may have difficulty distinguishing objects with low colour contrast, making those activities even more difficult. Objects that were once familiar may appear unknown or different. Care providers should be aware of these conditions and allow adequate time and flexible scheduling to encourage optimal independence and dignity. They should also be aware of patients’ environment and be willing to make modifications to decrease confusion and frustration.</td>
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<td>2</td>
<td>Visiting time: communication and language</td>
<td>30 minutes</td>
<td>Alzheimer’s disease and other dementias gradually diminish a person’s ability to communicate. Communication with a person with Alzheimer’s requires patience, understanding and good listening skills. Changes in the ability to communicate are unique to each person with Alzheimer’s. In the early stages of dementia, communication may not seem very different or they might repeat stories or not be able to find a word. People with Alzheimer’s or other dementias have more difficulty expressing thoughts and emotions; they also have more trouble understanding others. While a person with later-stage Alzheimer’s may not always respond, he or she still requires and benefits from respect and attempted continued communication.</td>
<td>After this station participants should be able to:</td>
<td>One iPod player, headphones, one visiting time soundtrack, one word card (such as the one below) and pencils.</td>
<td>You have relatives visiting your room and are listening to the sounds around you. It is confusing to try to comprehend with so much background noise. Another family member arrives and you want to tell them about what you’ve been hearing, but you are having difficulty recalling words to describe the sounds you heard.</td>
<td>Assign participant 1 the role of a person with dementia and participant 2 the role of a family member. Participant 1 will wear headphones and listen to the iPod. Ask them to describe what they have heard to participant 2. They can use only the words on the card provided to describe the various sounds. Participants should not use hand gestures. When participant 1 has had a turn, the roles should be reversed and participant 2 will try the exercise. After both participants have taken a turn, compare the sounds each has heard. The sounds on a visiting time soundtrack include:</td>
<td>Questions to help students empathise with patients.</td>
<td>Most people with dementia eventually experience some communication problems. The inability to convey information effectively is frustrating and confusing for patients and providers alike. With extra effort and patience, providers may be able to find effective ways to communicate verbally and non-verbally.</td>
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<td>Frying</td>
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<td>Tub</td>
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<td>Little</td>
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Station 3

Understanding and responding to walking

30 minutes

Walking, sometimes labelled as wandering, is not a symptom of dementia but people with dementia walk for a variety of reasons. They might:

- Want to go somewhere.
- Be lost and trying to find their bearings.
- Be looking for someone/something, which may or may not be there.
- Be trying to stay close to someone.
- Be reliving a routine, which might be from their past.
- Be trying to cope with troubling emotions or physical pain.
- Be lonely or bored.
- Be feeling cooped up, restless, in need of exercise or simply enjoy walking.

After this exercise participants should be able to:

- Understand that people walk for various reasons that relate to their feelings and needs.
- Respond in a way that meets the person’s needs.

Two handouts – walking scenarios and a walking questionnaire

Walking questionnaire

- Ask participants to complete a quick questionnaire – give everyone a copy of the walking questionnaire.
- Ask participants to say whether they ticked more Yeses or Noes.

It is likely that everyone will have ticked Yes for all or most of the statements. Ask people if they think their answers would change if they developed dementia, and lead a discussion about what this tells us about why people with dementia walk.

Each person will be playing a different part in a role play – sometimes they will be a person with dementia, and at other times they will be a staff member.

Ask participants to get into pairs and explain that they are going to do some role plays together (if you have an uneven number of participants you will need to take part yourself). Give role play sheet 'Walking role plays (A)' to one person in each pair and give 'Walking role plays (B)' to the other person. Explain that:

- Each pair of participants will carry out three role plays.
- Each of the role plays (numbered 1, 2 and 3) involves both participants, with each person playing the part described on their own sheet.
- They should not show their role play sheets to each other.
- After each role play they should pause to briefly discuss what was or what would have been helpful for the person with dementia.
- When role playing a person with dementia, participants should not mimic someone they have cared for, but should read the role they have been given and try to imagine themselves as that person with the feelings described.

Tell pairs to carry out their role plays, letting them know where they can go (it will help if people can leave the training room). They should do each role play for 1-2 minutes and then discuss it. Once pairs have completed their 3 role plays and discussed each one, they should return to the main group. Lead a discussion about each role play in turn.

- Ask for thoughts about the most useful responses for each scenario.
- Encourage participants to talk about what it felt like and consider what can be learned from it.
- For role play 3, there will probably have been some confusion about which role was the person with dementia and which was the staff member. Encourage participants to talk about what this felt like and consider what can be learned from it.

A person with dementia might not be able to explain why they are walking – and they might forget where they wanted to go – but it is important to recognise that walking is a natural and healthy human behaviour.

- Pick up on any clues about the person’s mood and needs.
- Communicate verbally and non-verbally with the person, for example, with a greeting or a smile.
- Walk with the person for a while.
- Help the person find where they want to go.
- Give the person any information they might need, for example, when their relative will next be visiting.
- Ensure that the environment provides triggers and clues, for example plenty of clear pictorial signs.
- Help the person stay safe by ensuring that they have and are reminded to use suitable footwear and any necessary walking aids.
case study. Doreen Browne*

Doreen was born in Rhodesia in 1946. Her father, a military man, was absent from her life as a child. Her mother, a housewife, devoted many hours to charity work. As a teenager, Doreen was sent to England to live with her grandmother and to attend boarding school. In 1963, at the age of 17, Doreen began her nurse training at St Bartholomew’s Hospital. Post-qualification she decided to specialise as a children’s nurse at Great Ormond Street.

During the next 25 years, Doreen worked hard and became a senior night sister before retiring at 65. Retirement was difficult for Doreen because of the onset of arthritis. Doreen married late in life and had one child, a son called Peter. Doreen has always been described as someone who is not afraid to speak her mind. Behind this exterior, however, Doreen is kind-hearted and lives to be helpful, sociable and active. She often helps older neighbours with small tasks and shopping. Doreen’s husband died several years ago after a short illness. Since then Doreen’s memory has declined and two years ago she was diagnosed with early onset Alzheimer’s disease.

Doreen has been in hospital for one week, after severe pneumonia. She is recovering from chest sepsis and has been very unwell. Peter, Doreen’s son, visited every day last week but is now on holiday. She has not had one visitor. Doreen’s work is observations and medications, and she often helps other nurses to get tasks done.

**This case study is not knowingly based on a real patient or scenario**

<table>
<thead>
<tr>
<th>Ward, bed, zone, date of birth</th>
<th>Patient name</th>
<th>Hospital ID</th>
<th>Age</th>
<th>Alerts</th>
<th>Diagnosis</th>
<th>History</th>
<th>Nurses to do</th>
<th>Doctors to do</th>
<th>Triage</th>
<th>Predicted date of discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>T01</td>
<td>Mrs Doreen Browne</td>
<td>70</td>
<td></td>
<td></td>
<td>Pneumonia, chest infection, Dementia, confused, National Early Warning Score: 6</td>
<td>Osteoarthritis, dementia, peripheral vascular disease, chronic obstructive pulmonary disease</td>
<td>Intravenous antibiotics, strict two-hourly observations, section 2</td>
<td>Medical review: hyponatremia/ tachycardia</td>
<td>Medical</td>
<td>To be confirmed</td>
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</table>
Discussion
Curriculum design principles underpinned by Biggs (2003) were used to help develop the programme. A scaffolding learning approach was used, with constructive, sequential interlinking of learning experiences.

Students were required to integrate, synthesise and construct their understanding of progressively more complex thinking and practice as professionals (Meyers and Nulty 2009). The participants progressed using different teaching techniques – didactic, case discussion, skill stations and full immersion simulation, moving them through the three domains of learning: cognitive, affective and psychomotor (Wilson 2017).

For staff to be able to provide the quality of care necessary to ensure people with dementia experience less distress they need to be self-confident (Travers et al 2013), validate patients’ feelings and demonstrate empathy (Cowdell 2010). This skill set comes from appropriate knowledge of dementia care, which in turn fosters a positive attitude and improved quality outcomes (Richardson et al 2002, Smith et al 2005, Zimmerman et al 2005). Cowdell (2010) stated that training and education programmes that engage the emotions of staff are likely to be more successful than traditional classroom lectures at promoting person-centred care.

In applying simulation-based training, teams were able to engage in the dynamic social, cognitive and behavioural processes of clinical care in an interactive manner, replicating aspects of the real world (Aggarwal et al 2010). Skill stations gave participants the opportunity to walk in patients’ shoes, with activities mimicking the experiences of people with dementia, demonstrating feelings of confusion, isolation or frustration. Through this external stimuli and active reflection, participants engaged in a deeper level of understanding to promote compassion and empathy.

Once participants progressed through skill stations, they each participated and observed clinical scenarios as part of an MDT, where they practised and assimilated new knowledge and decision-making skills. Through facilitated reflection participants then scrutinised their taken-for-granted assumptions and mental routines, and examined the justification for their beliefs, therefore enabling them to reassess the strategies and procedures used in problem-solving (Mezirow 1998, Friedman and Phillips 2004).

Moving to a dementia training programme based on simulation is a huge task, requiring more resources than a traditional classroom-based programme in terms of facilitators, actor, props, training space, time and creativity.

Skill stations need to be developed that reflect the possible difficulties people with dementia and their carers face in everyday situations. These need to be realistic and challenging, while simple and to the point, as timing is important. A five-minute overrun here can make for a difficult afternoon with time constraints.

Once the skill stations have been developed they can become an established segment of the programme, requiring only tweaking to keep them relevant. The scenarios require more time and creativity to produce environments that simulate the characteristics of real psychological fidelity to enhance positive educational transfer. Making them relevant to participants’ professions and their places of work is important, as well as being complex enough to stretch them without causing anxiety (Vygotsky 1978).

Course facilitators need to develop strong debriefing skills. Working with an experienced educator and taking time to practise the skills in a safe environment are recommended. Feedback on your performance as a facilitator is valuable, because the desire to slip into a well-rehearsed lecture remains. However, the more sessions you debrief the more confident you become in your ability to enable the participants to reflect on their actions and consequences of how different responses might have elicited a different outcome for patients.

Conclusion
In designing a new curriculum you must have clear learning objectives that meet the learning needs identified, while ensuring this is relevant to and in line with professional and organisational goals. Simulation-based education is resource-heavy and requires faculty with appropriate skills and experience in debriefing and scenario design.

Drawing on educational expertise, new curriculums can be developed using appropriate instructional design, and experts in the faculty can be supported and coached to ensure effective delivery. Due to the resources needed to deliver this type of education, the number of staff who can attend is limited and sustainability can be challenging.

It is recommended that simulation-based education be included as one element in a blended approach to curriculum development for dementia training.
References


Call for papers

Nursing Older People welcomes submissions from experienced and new authors on a variety of subjects, including:

- Care home nursing.
- Caring for patients with long-term conditions.
- End of life care.
- Frailty.
- Tissue viability.

Contact editor Lisa Berry at lisa.berry@rcni.com