

Communication between people living with dementia and healthcare practitioners in hospital: developing and evaluating a staff training intervention. The VOICE Study

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ABSTRACT (539 words)

Background

25% of hospital beds are occupied by a person living with dementia. Dementia affects expressive communication and understanding. Healthcare professionals report lack of communication skills training.

Objectives

To identify teachable effective strategies for communication between healthcare professionals and people living with dementia, and to develop and evaluate a communication skills training course.

Design

We undertook a systematic literature review, video-recorded 41 encounters between staff and people with dementia, and used conversation analysis to investigate communication problems and solutions. We designed a communication skills training course using co-production and multiple pedagogic approaches. We ran a pilot, followed by six courses for healthcare professionals. We measured knowledge, confidence and communication behaviours before, immediately- and one month- after the course, and undertook interviews with participants and managers. Behaviours were measured using blind-rated videos of simulations.

Setting

General hospital acute geriatric medical wards; clinical skills centre.

Participants

We video-recorded 26 people with dementia and 26 professionals. Ten experts in dementia care, education, simulation and communication contributed to intervention development. Six healthcare professionals took part in a pilot course, and 45 took part in the training.

Results

Literature review identified 27 studies, describing ten communication strategies, with modest evidence of effectiveness. Healthcare professional-initiated encounters followed a predictable phase structure. Problems were apparent in requests (with frequent refusals) and in closings. Success was more likely when requests were made directly, with high entitlement (authority to ask), and with lowered contingencies (made to sound less difficult, by minimising the extent or duration of the task, asking patients 'to try', offering help, or proposing collaborative action). Closings were more successful if the healthcare professional announced the end of the task, made a specific arrangement, body language matched talk, and through use of 'closing idioms'. The training course comprised two days, one month apart, using experiential learning, including lectures, video-workshops, small group discussion, simulation (with specially-trained actors) and reflection. We emphasised incorporation of previous expertise, and commitment to person-centred care. 44 participants returned for the second training day; 43 provided complete evaluation data. Knowledge and confidence both increased. Some behaviours, especially relating to closings, were more commonly used after training. The course was highly-rated in interviews, especially the use of simulation, real-life video clips, and interdisciplinary learning. Participants reported that they found the methods useful in practice and were using them a month after the course finished.

Limitations

Data were from people with moderate to severe dementia, in an acute hospital, during healthcare professional initiated interactions. Analysis was limited to problems and solutions that were likely to be 'trainable'. Actors required careful preparation to simulate people with dementia. Communication skills training course participants were volunteers, unlikely to be representative of the general workforce, who displayed high levels of baseline knowledge, confidence and skills. Before-and-after evaluations, and qualitative interviews, are prone to bias.

Future work

Further research should investigate a wider range of health, social care and family carers. Conversation analysis should be used to investigate other aspects of healthcare communication.

Conclusions

Requests and closings pose particular difficulties for professionals communicating with people with dementia. We identified solutions to these problems and incorporated them into communication skills training, which improved knowledge, confidence and some communication behaviours. Simulation was an effective training modality.

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LIST OF ABBREVIATIONS

AHP Allied health professional

B-A Before and after (study design)

CA Conversation Analysis

CARM Conversation Analysis Role-play Method

CCT Controlled clinical trial

DVD Digital Versatile Disc

ETRS Emotional Tone Rating Scale

GP General (medical) practitioner

HCOP Health Care of Older People

MRC Medical Research Council

NHS (United Kingdom) National Health Service

NICE National Institute of Health and Care Excellence

PMG Project management group

PPI Patient and public involvement (in research)

RCT Randomised controlled trial

RLO Reusable learning object (short e-learning package)

SP Simulated patient

SSC Study steering committee

TIDieR Template for intervention description and replication (reporting guideline)

UK United Kingdom

VOICE Videoing to Improve dementia Communication Education

PLAIN ENGLISH SUMMARY (285 words)

People with dementia are frequently admitted to general hospitals, and often have problems communicating. Much healthcare is delivered through talk.

Communication problems can make delivering care difficult.

We videoed 41 encounters between 26 professionals and 26 people living with dementia, and analysed them to understand where problems arose, and how skilled practitioners overcame them. We designed a two-day communication skills training course, which we ran as a pilot, and then six further times, including 45 staff from two hospitals. The course used a variety of teaching methods, including simulation (actors playing the part of patients). We evaluated the course.

Particular problems were found during requests (patients often refused) and the 'closing' at the end of the encounter. Agreement was more likely where requests were direct, made with a high degree of authority, and where possible difficulties associated with the task were minimised. Closings worked better when the staff member announced the end of the task, made a specific arrangement, their body language matched what they were saying, and through use of 'closing idioms' (common sayings such as 'all done and dusted'). The course ran successfully, and was highly rated by participants. After the course, we measured improvements in confidence, knowledge and communication behaviours. Participants reported that they found the methods useful in practice and were still using them a month after the course finished. They particularly valued the simulation, use of real life video-clips, and learning in a mixed group of different professionals.

We identified areas of particular communication difficulty for healthcare professionals and people living with dementia, and ways in which skilled practitioners overcame them. We can improve the communication skills of (even experienced) healthcare staff. Simulation is a valuable method for achieving this.

SCIENTIFIC SUMMARY (2530 words)

Background

Twenty-five per cent of general hospital in-patients are people living with dementia. Dementia can affect expressive communication and understanding, and other aspects such as memory loss also affect communication. Much healthcare is delivered through talk. Problems with communication make care and decision-making difficult, and contribute to behaviours indicating distress. Family carers and healthcare professionals identify communication as a problem, but opportunities for communications skills training are lacking. There is much advice on communication with people living with dementia, but little is based on rigorous research. Conversation analysis (CA) is a socio-linguistic method for studying patterns in real-life communication encounters. It analyses what communication partners actually do, rather than what they think or say they do.

Objectives

The overall goals were to answer questions, with respect to communication between healthcare professionals and people living with dementia: what should we teach? how should we teach it? can we teach it?

Specific objectives were: to identify previously reported communication skills training content, teaching methods, evaluation outcome measures and effectiveness; to investigate empirically how experienced healthcare professionals communicate with people living with dementia, identify where problems arise and how they are overcome; to identify trainable communication strategies; to develop a communication skills training course using co-production; to evaluate the course using Kirkpatrick's levels of reaction, knowledge, confidence and behaviour change; and to investigate if and how the skills are useful in practice, identifying any barriers to implementation.

Methods

Literature review

We undertook a systematic review of literature published between 2010 and 2017, updating a previous review published in 2013.

Conversation analysis of real healthcare encounters

We recruited consenting healthcare professionals whom peers described as 'good communicators' or 'good with patients with dementia', and people with dementia on acute hospital geriatric medical wards, through regular visits to participating wards. We videoed 41 healthcare encounters between 26 healthcare professionals (eleven nurses, nine doctors and six allied health professionals) and 26 people with dementia (ten men, 16 women), comprising 378 minutes (mean 9.2, range 2-30 minutes). Eleven (27%) video recordings included a person with dementia who had mild communication impairment, 22 (54%) moderate and 8 (19%) severe. Videos were transcribed verbatim and notated for CA. We used CA to classify verbal and non-verbal practices and patterns within interactions, and to identify challenges and how they were overcome.

Communication skills course development

An intervention development team was constituted from experienced clinical and academic speech and language therapists, nurses, doctors and patient and public representatives. They had extensive experience in education, and included experts in simulation (use of actors to represent patients for teaching or assessment purposes). A structured, systematic, approach was used. Evidence was assembled from the literature review, conversation analysis findings, and interviews with experts, and consideration of logistical constraints. Decisions were made by consensus.

Communication is a practical skill, deployed in real time, in unpredictable circumstances; communication skills training therefore requires an experiential approach. We investigated various pedagogic modalities, including lectures, simulation, and reflection, supported by electronic learning. Short video-clips demonstrating problems and solutions, and 'CA role play method', in which video-

action is stopped to allow small group discussion of what to do next, were used to improve authenticity. We paid attention to the needs of groups learning, to minimise anxiety (for example, about simulation exercises), and build trust and a safe learning space. We carefully devised training scenarios, and extensively trained actors, who were experienced in clinical simulation, to credibly simulate people living with dementia. A pilot course was run with six experienced healthcare professionals, all of whom had an interest in clinical education. These participants were debriefed using a focus group, and changes made to the course.

Communication skill course evaluation

We ran the communication skills training course six times, in two hospitals' dedicated clinical skills centres. We recruited 45 volunteer healthcare professionals, who worked with patients with dementia and who gave informed consent. Recruitment was by word of mouth and posters displayed in the two hospitals. The main aim was to establish feasibility. Sample size was determined by practicality. We evaluated the course using a before- and after- study design. Before the course, healthcare professionals completed measures of knowledge about dementia, and the Confidence in Dementia Scale. Without any further preparation, healthcare professionals then undertook one of two simulation exercises (getting a patient out of bed, or getting a patient to drink some water) which was videoed. Immediately after the second day of the communication skills training course, participants completed a course evaluation. Measures were repeated, along with a questionnaire on confidence in communicating with a person with dementia. Participants swapped the videoed simulation task from the one undertaken previously. We derived a checklist of observable behaviours relating to skills taught on the course. Videos were blind-rated by two independent, trained, speech and language therapists, who achieved reasonable consistency on rating. We also asked a panel of eight people living with dementia and family members to rate the videos using the emotional tone rating scale, as a measure of person-centredness. Means and proportions were compared. One month after the course, participants were contacted by email, and asked about their use of the techniques in practice. An independent occupational psychologist interviewed ten course participants, two clinical managers, and three

clinical managers who had undertaken the course. A thematic analysis was undertaken.

Patient and public involvement

Carers of people living with dementia were involved in identifying the research question, the design of the study, governance (via membership of the study management group and steering committee), interpretation of findings, design and delivery of the training course and dissemination. People living with dementia and carers were involved in assessing effectiveness of the training by assessing videos of simulations.

Results

Literature review

A previous systematic literature review identified eight communication skills training evaluations studies, all in care homes or with carers of people living with dementia. Twenty-seven studies published results between 2010 and 2017, using a variety of research designs; 14 in care homes, eight in private homes, three in acute hospitals and two in higher education institutions. Modal training duration was four hours (range 45 minutes to 24 hours over six months). Training methods included DVDs, e-learning, didactic teaching, group discussions, problem-based learning, self-reflection, and video, supported by theory, written materials, and homework. Nine studies used role play, simulation or 'live' skills practice. Outcome measures included observed communication behaviours, and self-rated confidence, knowledge and attitudes. Some evidence of effectiveness in improving confidence and knowledge was reported.

Conversation analysis of real healthcare encounters

We videoed healthcare professionals completing a variety of clinical tasks, including ward rounds, recording vital signs, medication administration, swallow assessments, feeding, and assessment of mobility and activities of daily living. All tasks were initiated by the healthcare professional (a consequence of the need to set up the

video camera). Interaction followed a characteristic 'institutional' pattern, with a more predictable phase structure than ordinary conversation: opening and greeting, reason for visit, information gathering, business, closing. Most healthcare professionals introduced themselves by name and stated their purpose. The reason for the visit was mostly made explicit. Information gathering varied according to the task involved, and sometimes did not occur. The business phase usually required physical action on the part of the healthcare professional and the patient, working more or less collaboratively. The closing was usually initiated by the healthcare professional.

Most of these phases occurred without interactional trouble, but two elements were commonly problematic: requests (and frequent refusals) and closings (which were often prolonged and unsatisfactory). Twenty-eight (68%) of our recordings contained refusals, often repeated. Refusals could be overt, mitigated (a reason given), or passive non-response. These features are unusual in healthcare interactions, and removed from what everyday communication skills prepare us for.

CA study of requests has established that they can be understood in terms of 'entitlement' and 'contingency'. An individual indicates what entitlement (authority) they have to ask their communication partner to do something, through the way they say it. They can also acknowledge the potential difficulty of complying, and barriers to completion for the recipient, called 'contingencies'. This analysis fitted well with our data.

Typically people make requests in a low-entitled way (to sound polite and offer choice over compliance). Such requests were often refused. By contrast, higher entitled requests were more likely to succeed. These would take the form of announcing future action ('we are going to ...'), proposals ('let's'), or statements of need ('I need you to...'). They may be 'softened' using a checking question ('is that OK?').

Healthcare professionals were more likely to successfully complete a task when using language that lowered contingencies (difficulties), by using words that

minimised the size or duration of the task ('just', 'pop', 'for a moment'), asking the person 'to try', by offering help, or proposing joint action.

Vague or indirect wording of requests was less likely to be successful than direct instructions ('imperatives'). Requests preceding mitigated refusals often referred to the person living with dementia's ability or willingness to comply ('can you...?'; 'will you ...?').

Closings were sometimes prolonged, and characterised by misunderstandings, and failure to recognise the usual cues that a conversation is ending. We identified three phenomena recurrently associated with troubles: open-ended pre-closings, mixed messages and non-specific or indeterminate arrangement-making.

'Open-ended pre-closings' causing problems included questions such as 'can I do anything else for you?', which is commonly taught as good practice in ending a consultation. People living with dementia often failed to understand what was wanted, or produced irrelevant answers.

'Mixed messages' included ambiguous body and verbal language, or re-opening a conversation, sometimes in an attempt to complete a failed task. Healthcare professionals sometimes appeared to find it difficult to know when (or how) to leave a patient with dementia, sometimes not progressing to final closure despite indicators that the patient has oriented to it, or the patient failing to orientate at all to cues that the encounter was ending.

Problems were also seen following use of vague or non-specific language ('see you soon'), which were met with requests for literal clarification ('how soon?').

By contrast, explicit pre-closing statements (a direct statement that the interaction was coming to an end; 'I am finished'), and use of 'closing idioms' ('I'll leave you be'; 'all done and dusted') were used to more successfully terminate encounters.

Our analysis highlighted tension between seeking to treat a person living with dementia as a competent agent who can collaborate in communication, and adapting communicative practices to take impairment into account. Patients living

with dementia demonstrated a wide range of communicative abilities which could vary with time and context, requiring real-time awareness, assessment and adaptation by the healthcare professional.

Communication skill course development

We developed a communication skills training course comprising two days, one month apart, over a series of four whole-day workshops and other meetings.

The course was based on experiential learning theory and included lectures, small-group discussion, video workshops, reflective workshops and simulation. To make the simulation authentic, we successfully developed scenarios and back-stories, and trained experienced simulation actors to play the part of people living with dementia. This was substantially more intensive than is usual practice. Simulations took place in small inter-disciplinary groups (of three to five) and were carefully facilitated, including structured feedback from peers, facilitator and the simulated patient (out of role). Trainees were encouraged to pause the action to think or ask advice, and re-run, replay or experiment with approaches.

We took steps to address potential problems with authenticity, by using video recordings of real-life health care episodes drawn from research data.

The second day of training included reflection on real-life communication in practice, and simulations with a greater degree of communication challenge.

We supported learning with a 15 minute multi-media, e-learning computer package.

Communication skill course evaluation

45 trainees attended day 1, 44 returned for day two. There were eight doctors, 19 nurses, 17 Allied Health Professionals, one activities coordinator; 89% were female; 89% white ethnicity; median five years' experience working with patients living with dementia. One trainee failed to return assessment documentation. The course evaluated highly: 98% would recommend it to other healthcare professionals. Mean scores were >9/10 on a range of questions about delivery and usefulness. At the end of the course, participants reported that they remembered the skills (mean 8.6/10);

were using the skills (8.2/10) and found them helpful (9.6/10). Confidence in Dementia Scale scores improved (32.8/45 versus 38.3/45; $p < 0.001$), as did communication-specific confidence questions. Participants improved on the dementia knowledge test (7.2/10 versus 8.8/10; $p < 0.001$).

One month after the course response rate was 31/44 (70%). Participants stated they continued to remember, use and find the skills useful.

The speech and language therapists' ratings of simulated encounters showed that following training, when closing an interaction, participants were: less likely to make a vague arrangement (56% versus 16%; $p < 0.001$); more likely to be specific about closing (51% versus 79%; $p = 0.01$); and more likely to announce completion (0% versus 14%, $p = 0.03$). There were no significant changes in communication behaviours related to requests. However, many participants already used the recommended techniques prior to training (e.g., 74% of healthcare professionals were highly entitled making a request and 93% of healthcare professionals reduced contingencies after refusals).

On the Emotional Tone Rating Scale communication after training was found to be less warm (mean 3.4/5 versus 2.9/5; $p = 0.03$) and more controlling (2.2/5 versus 2.7/5; $p = 0.03$), but there were no differences in the other categories (nurturing, directive, affirming, respectful, patronizing, supportive, polite, bossy, caring).

The interview study found that training was considered to be highly effective. Use of simulation, interdisciplinary learning and use of real video examples were strongly supported. Participants also reported benefit from learning new techniques (seven were specified), and valued the second training day. Techniques were thought to be highly applicable in practice. Some participants would have liked more on dealing with aggressive patients. Some found simulation uncomfortable. Barriers in practice included time to interact with patients on wards, and lack of a 'critical mass' of consistently trained staff.

Conclusions

Communication with people living with dementia is difficult and communication skills training has been neglected. The teaching on the VOICE training course was grounded in empirical research. We uncovered original and interesting new linguistic findings, which we incorporated into a new course, using multiple teaching approaches, including simulation and use of real-life video. Our training changed knowledge, skills and behaviour, and was useful to healthcare professionals in diverse roles in frontline clinical practice. We used innovative mixed methods to evaluate the course.

Data were limited to people with moderate to severe dementia, in an acute hospital. Communication skills training course participants were volunteers, unlikely to be representative of the general workforce, who displayed high levels of baseline knowledge, confidence and skills. Before-and-after evaluations, and qualitative interviews, are prone to bias. The length and intensity of the course were similar to other reported effective interventions. The course incurred a cost for trainers, simulated patients and facilities, and small group sizes. Whilst not high in commercial training terms, cost may present a barrier for staff and services with little access to training funding.

A priori it is likely that communication training is likely to be beneficial to staff, service provision and patient experience, and our feasibility study supported this. However, further evaluation with a wider sample of staff groups is necessary, including those less enthusiastic for training, those with English as a second language, and unregistered staff. Work is also required to investigate communication problems in other settings, such as care homes, care at home and family care, and to determine the mechanisms, priority and funding resources necessary to deliver training at scale. Conversation analysis should be used more widely in investigating healthcare communication.

Hospitals and other care settings should make 'reasonable adjustments' to ensure that staff are prepared to look after patients living with dementia. The VOICE training course provides an opportunity to achieve this.

CHAPTER 1: INTRODUCTION

People living with dementia in hospital

850,000 people live with dementia in the United Kingdom (UK), projected to rise to one million by 2025.¹ Dementia is common in acute hospitals, with approximately 25% of beds occupied by a person living with dementia.^{2,3} Best practice and policy aim to ensure that older people are treated close to home wherever possible, but hospital admission remains necessary for many acute ailments and crises that commonly affect older people, and is likely to remain so. Patients present to hospital with a range of medical emergencies such as fractures, urinary tract infection, pneumonia, or stroke. Such presentations are frequently complicated by falls, immobility, pain, delirium, dehydration, or incontinence.⁴ During a hospital admission, patients need health care to cure their acute illness, manage exacerbations of chronic conditions, relieve symptoms, restore function, and prevent complications. To do this, healthcare professionals carry out a range of healthcare tasks or activities such as information gathering, physical assessments, medical investigations, administering medications, and physiotherapy. People living with dementia also need support with other aspects of care such as eating and drinking, washing and dressing, sleep, and safety, known as 'fundamentals of care'.⁵ Much of the work of hospital healthcare professionals involves these tasks;⁶ effective communication is a pre-requisite of effective care.

People living with dementia are vulnerable, and need attention to the psychological and emotional aspects of their care as well as the physical, not least to avoid distress and the challenging behaviours that may result. An acute hospital admission can be a frightening experience for those who don't understand it. There is ample evidence that hospital staff feel ill-equipped to care for, and effectively communicate with, people living with dementia.^{7,8} The person living with dementia is usually acutely unwell. The complications of delirium or pain may contribute to distress and disorientation, making assessment and interaction more complex than usual. The environment is busy, unfamiliar and often noisy. The thrust of assessment and treatment is towards rapid evaluation, intervention and discharge, leaving little time

for rapport-building, giving comfort, and nuanced communication with those with communication challenges.

Counting the cost: caring for older people with dementia on hospital wards reported that nursing staff and nurse managers found caring for people living with dementia to be challenging. Key areas of concern related to managing difficult or challenging behaviours, maintaining safety, and communication.²

Communication is not solely the responsibility or role of nursing staff. When admitted to hospital, people living with dementia will encounter, and be cared-for by, a wide range of healthcare professionals, including doctors, nurses, healthcare assistants, pharmacists, social workers, and allied health professionals (AHPs) such as physiotherapists, speech and language therapists, occupational therapists, and dietitians. They also encounter domestic staff, cleaners, porters, and hospital volunteers. Some of the key aspirations set out in the Prime Minister's Challenge on Dementia 2020 are for all hospitals to become dementia-friendly care settings, and for all NHS staff to have training on dementia appropriate to their role.⁹

Outcomes of hospital care for people living with dementia are worse compared to people without cognitive impairment.^{10,11} People living with dementia have longer lengths of stay, higher readmission rates, and a greater likelihood of dying than people without dementia admitted for the same condition.¹² A quarter of cognitively-impaired patients will have died within three months of a hospital admission.⁶

One possible contributor to this differential is communication difficulties. These are associated with preventable adverse events in the general hospital population,¹³ and length of stay, poorer functional outcome, and institutionalisation among stroke patients.¹⁴⁻¹⁶ Studies in residential care have found evidence that poor staff communication, such as use of 'elderspeak' (infantilising communication), may precipitate problem behaviours, such as resistance to care¹⁷ and physical and verbal aggression.¹⁸ Both of these increase costs of care.¹⁹ Relatives of people living with

dementia report that ineffective communication can result in exclusion of patients, and care lacking in dignity and respect.² Good communication facilitates person-centred care.

Communication problems in dementia

Dementia presents a particular challenge to communication. People living with dementia may experience deterioration in their communication abilities, as well as problems in memory, disorientation, recognition, reasoning and decision-making.²⁰ People living with dementia often have impaired comprehension and expression, including word-finding difficulties, lack of coherence, and repetition of thoughts. As dementia progresses, communication can deteriorate to a state where no intelligible speech is used.²¹

The level of communication disability experienced by a person living with dementia will be influenced by contextual factors external to themselves, such as the environment²² and the communication skills of their 'communication partners'.²³ Hospitals are difficult environments for people living with dementia, and rely on an assessment model based on intensive and repeated questioning. People living with dementia may be unable to communicate their needs (such as pain, or need for the toilet), and carers may struggle to understand what the person is trying to convey. Such communication breakdown can lead to unmet need, poor care, and distress.²⁴

Data from *Counting the Cost* indicated that 72% of nursing staff felt they lacked particular skills to communicate effectively with people living with dementia and wanted additional training.² In one acute hospital, staff reported lacking confidence in providing care to people living with dementia, and having received little or no dementia-specific communication skills training.²⁵ Staff experience stress and reduced job satisfaction arising from challenging interactions with people living with dementia.^{7,26}

The English Equality Act 2010 obliges public services to make 'reasonable adjustments' to ensure that services are accessible to all regardless of 'protected

characteristics' including disability. Such adjustments can be argued to include the communication skills of staff. Reports into poor care for patients within the National Health Service (NHS) have highlighted the need for improved communication between hospital staff and patients to reduce errors and improve care.²⁷ The NICE guideline on care of people with dementia highlights poor communication between the person living with dementia and staff as a factor associated with emotional and behavioural problems.²⁸ The *Building a Safer NHS for Patients* report recommended communication skills training for healthcare professionals. The importance of nursing staff regularly engaging with their patients, in 'constructive and friendly interactions', was emphasised by the *Francis Inquiry*.²⁷ The government's position paper *Patients First and Foremost* advocated improved education and training on dementia with a commitment to 'listen most carefully to those whose voices are weakest and find it hardest to speak for themselves'.²⁹

Cowdell et al observed interactions between healthcare professionals and people living with dementia in the acute hospital.³⁰ Almost all communication was related purely to physical care. Many interactions demonstrated elements of 'malignant social psychology',³¹ such as ignoring, infantilisation, disempowerment, stigmatization, accusation, imposition and disparagement, despite the healthcare professional's believing that they were being kind.³⁰ The structured non-participant observation method of Dementia Care Mapping has been used to study care delivery for cognitively impaired older adults. Communication by healthcare professionals during routine physical care tasks was frequently brief or absent, with a lack of introductions and courtesies, and even ignoring of the patient. Patient-initiated interactions were often deflected by healthcare professionals, with promises of attention later. Person-centred care, when it was observed, was time-consuming, particularly if the person living with dementia had a communication problem.^{6,32}

Communication competencies

The ability to communicate sensitively and achieve meaningful interaction is a core competency for supporting people living with dementia. The National Minimum Training Standards for healthcare support workers and adult social care workers in

England include 'effective communication'.³³ There is a wealth of advice on communicating with people living with dementia. This includes eliminating distractions, ensuring hearing aids are working, taking time, positioning oneself in full view and at the same level, speaking clearly, calmly, and using short, simple sentences.²⁴ There is also a body of practical expertise amongst mental health professionals. More abstract components such as use of body language, making the person living with dementia feel valued, or appropriate turn-taking can be difficult to describe.

Small et al identified ten recurrently recommended strategies, of which they found only three impacted positively on observed communication breakdowns between family caregivers and people living with dementia (eliminating distractions, simple sentences, yes/no questions).³⁴ One strategy (slow speaking rate) resulted in more breakdowns, a finding confirmed in other studies.^{35,36} A slow speaking rate is disliked by older people,³⁷ but is still recommended in a number of current guidelines (e.g.²⁴). The use of closed ('yes/no') questions for successful communication is supported,²¹ but open questions have been found to be useful for facilitating personal conversations about feelings and concerns.³⁸ Sentence comprehension can be improved by limiting utterances to one proposition,³⁹ paraphrasing and verbatim repetitions.³⁵ When presented with vignettes, nurses perceived carers who use simplified language as less patronising, and people living with dementia as more competent.⁴⁰ Critical communications from caregivers predict negative behaviours;⁴¹ positive and affirming communications are recommended.⁴²

Perceptions about communication may differ from objective evidence from recorded interactions. Recommended communication strategies were thought to be helpful by family caregivers and healthcare professionals, but both overestimated effectiveness when audio-recordings of interactions were analysed. Despite this, fewer communication breakdowns were observed when recommended communication strategies were used compared to when they were not.³⁴

A systematic review of the experiences of communication by people living with dementia during interactions with both family caregivers and healthcare professionals identified 15 studies.⁴³ A single study explored the views of the person living with dementia.⁴⁴ Fourteen studies reported the experiences of family caregivers and healthcare professionals. Communication difficulty was a common finding. Wang et al used content analysis of 15 interviews with nurses to explore these difficulties further, and identified two themes.⁴⁵ 'Different language' referred to the sense that the healthcare professional and the patient spoke different languages and so could not understand each other. 'Blocked messages' indicated that healthcare professionals struggled to interpret patients' needs and emotions due to impaired verbal communication and flat affect. In one study, nursing staff deconstructed communication with people living with dementia into 'being in' communication whereby they tried to attune themselves to patients' feelings, and attempted to understand the perspective of the person living with dementia; and 'doing' communication which involved using techniques such as active listening, allowing time to talk, and asking questions.⁴⁶

The literature does not identify clear communication strategies that can be used for training to overcome communication barriers for healthcare professionals and people living with dementia in the acute hospital setting.

Communication skills training

Research suggests that communication skills cannot be improved through experience alone.⁴⁷ Skills can be acquired and retained with appropriate teaching, and leads to greater confidence in communication.⁴⁸⁻⁵⁰ For training to be effective it needs to be practical, with opportunities to practice and receive feedback.^{51,52} Transferring learned communication skills to clinical practice happens best when courses contain role-play with simulated patients, structured constructive feedback and discussion led by a trained facilitator.⁴⁸⁻⁵⁰

Reviews of communication skills training interventions for healthcare professionals suggest that communication skills can be improved when communicating with a non-

communication impaired patient population,⁵³⁻⁵⁵ but evidence for their impact on patient health outcomes is uncertain.⁵¹

A systematic review of communication skills training in dementia care identified twelve studies, but none was based in acute hospitals or involved the training of doctors.⁵⁶ Four interventions were delivered in the patient's own home, mostly one-to-one, with a focus on individualised training of the carer, and not generalisable to hospital staff. The other eight interventions were delivered in care homes, with marked variability in duration (from three hours training,⁵⁷ to 15 hours training plus two weeks supervised working).⁵⁸ Care home studies which used questionnaire and observational measures showed positive effects on knowledge, skills and attitudes of trained staff, but recommended communication techniques were not always clearly defined and outcome measures were inconsistent.

A systematic review of interventions to improve communication between people living with dementia and nursing staff during daily care reported insufficient published evidence to draw firm conclusions.⁵⁹ The review included six studies, and focussed solely on long-term care facilities. Interventions varied in duration, intensity, and type from a single lecture⁶⁰ to four weeks of work-based training.⁶¹ Five of the six studies showed significant effects on at least one communication outcome, but interpretation of the clinical relevance of these was limited by methodological quality and inconsistency of outcome definition.

Whilst the literature gives some guidance on communication skills training competencies, minimal evidence comes directly from the general hospital. Most empirical work is based on family and nurses or carers as communication partners, with no studies of doctors or allied health professionals. To develop an effective communication skills training intervention for interacting with people living with dementia in acute hospitals, we need a better understanding of what works in this setting through basic research to explore the communication problems and how they can be overcome.⁵² Recommended attitudes, techniques and approaches cannot simply be assumed to be effective.

Conversation analysis

Conversation Analysis (CA) is a well-established socio-linguistic qualitative method for the analysis of social interaction and communication⁶²⁻⁶⁴ which has been used to develop successful communication skills training interventions in fields such as stroke,⁶⁴ psychosis⁶⁵ and primary care.⁶⁶ For example, in stroke care, the recommended 'supported conversation' approach to training healthcare staff and volunteers to communicate better with people with aphasia⁶⁷ was based on empirical work using CA to explore the communication of videoed volunteers.⁶⁸ The skills needed for successfully communicating with people with aphasia were characterised around the concepts of 'revealing competence' and 'acknowledging competence'. The training emerging from this was found to be effective in several trials.^{69,70} CA of outpatient consultations between psychiatrists and clients expressing delusional views has demonstrated how the alternative approaches taken by psychiatrists can lead to a change in client responses and thus to more or less constructive consultations⁷¹ and this has also been developed into a tested training intervention.⁶⁵ CA has also shown that different communication approaches might be more effective at different times. For example, in conversations about advanced decisions and end-of-life, CA has shown that a direct approach from healthcare professionals is harder for the client to deflect and is necessary when an immediate decision is needed, whereas more easily deflected indirect approaches are more appropriate to encourage patient-led decisions when there is more time, and a greater priority on avoiding communication breakdown.⁷²

The existing literature supports the use of fundamental research using CA to collect evidence about communication between healthcare professionals and people living with dementia in hospital, and to use this to develop training.

Conclusion

This introduction has outlined that communication problems faced by people living with dementia are common in the acute hospital and contribute to problems for staff and poorer experiences and outcomes for patients. Staff feel under-skilled to communicate effectively with people living with dementia to deliver satisfactory and

fulfilling care. We have identified a dearth of evidence to support specific communication training interventions for healthcare professionals working with people living with dementia in the acute hospital setting. To improve care, and rise to the challenges set by the public and policy-makers around dementia-friendly hospitals, a deeper understanding is required of how healthcare professionals in acute hospitals communicate with people living with dementia, which aspects and techniques are good and which cause communication breakdown.

The specific research questions to be answered in this project were:

1. What should we teach? What constitutes good communication skills, including content, linguistics, context, and facilitators that overcome communication challenges experienced between healthcare professionals and people living with dementia?
2. How should we teach it? What are the components of an effective communication skills training intervention for healthcare professionals caring for people living with dementia and how should this training be delivered?
3. Can we teach it? Is this communication skills training intervention feasible, acceptable and effective?

To answer these questions the following empirical research was undertaken:

1. An update of a systematic review on the content and effectiveness of dementia communication skills training courses.⁵⁶
2. CA of video-recorded encounters, supplemented by observations, to analyse the structure of communication patterns used by healthcare professionals to communicate with people living with dementia.
3. Development of a novel communication skills training intervention based on the findings of the CA, systematic review, expert consensus and service user experience. This included a pilot study to test the training course in real time, with selected healthcare professionals.
4. An evaluation of the effectiveness of the communication skills training intervention on intermediate outcomes using a before-and-after design to assess acceptability of the course and changes in self-assessed competence

and confidence, dementia communication knowledge, and communication behaviours in healthcare professionals who completed the training

5. An interview study of a sample of the healthcare professionals who participated in the training and clinical managers, to examine the acceptability and experience of the training, and the importance of this training to the skills of the ward-based clinicians.

CHAPTER 2: SYSTEMATIC REVIEW

Introduction

The only systematic review of communication skills training in dementia care that we found included papers published up to 2010. None of the twelve studies identified was undertaken in hospital, the training interventions were varied, and the methodological quality of the evaluations was generally poor. This review concluded, however, that communication skills training in dementia care led to an increase in positive interactions, and improved quality of life of people living with dementia. It also reported significant impact on the communication skills, knowledge and competencies of both professional and family caregivers.⁵⁶

The aim of the current systematic review was to update the previous review, in order to inform the development of a new communication skills training course, and to identify suitable outcome measures for the evaluation. In doing so, we aimed to identify current knowledge on the content, didactic approach and effectiveness of dementia communication skills training courses in various care settings. Specific questions for the review were:

1. What types of communication skills training were evident, taking theory and content into account?
2. What didactic methods were used to deliver the training?
3. What contextual factors (e.g. location, organisation) have been studied, with what results?
4. What is the evidence of the effectiveness of communication skills training, and on what outcomes?

Methods

We developed the search strategy following that described by Eggenburger⁵⁶; in conjunction with a research librarian, and extended it to include online dementia communication skills training. We initially searched for primary research published between January 2010 and August 2015. We updated the review in August 2017 with searches for articles published between August 2015 and August 2017. Electronic bibliographic databases were searched, including MEDLINE, AMED, EMBASE, PsychINFO, CINAHL, Cochrane Register of Controlled Trials, Cochrane Database of Systematic Reviews, Web of Science, OpenGrey. Search terms were adapted for use across different databases, including key word and MeSH term searches where appropriate. Box 1 shows the inclusion and exclusion criteria, Figure 1 describes the results of the search and screening process.

As an example, the search strategy for MEDLINE was a key word search of:

word group 1 communicat* OR interaction* OR behaviour* OR behaviour* AND

word group 2 train* AND

word group 3 dementia OR Alzheimer* OR “cognitive impairment*” OR “behavioral disturbance*” OR “behavioural disturbance”

Box 1: Inclusion and exclusion criteria for systematic literature review

Inclusion Criteria

1. Title and abstract in English. Translation was sought if a study meeting final criteria had a full text not in English.
2. Evaluation by randomised controlled trials (RCTs), clinical controlled trials (CCTs) and before-and-after (B-A) studies.
3. Trainee population including any healthcare professionals, care staff, family caregivers, students or volunteers.
4. Patient population comprised people living with dementia, defined by any criteria and living in any setting.
5. Intervention aimed to improve trainee's communication with people living with dementia. If the training also incorporated other topics, communication had to form an essential part. Communication skills training could be in a group or one-to-one, face-to-face or not. Online learning was included.
6. Use and method of control was recorded.
7. Outcomes included any quantitative outcomes including at the level of the patient or caregiver.

Exclusion Criteria

1. Qualitative, or review articles.
2. Intervention studies aimed at training people living with dementia directly, or mixed patient populations where the training was not specific to the needs of people living with dementia.
3. Communication was not the stated aim, or an essential part of training.
4. Psychosocial interventions aiming to reduce caregiver stress or burden.
5. Cognitive, language or other therapies aimed at changing the person living with dementia's impairments or functioning.
6. Specifically-named approaches with primary non-communication goals including validation, reminiscence, reality orientation, cognitive stimulation and dementia care-mapping.
7. Studies with solely qualitative outcomes.

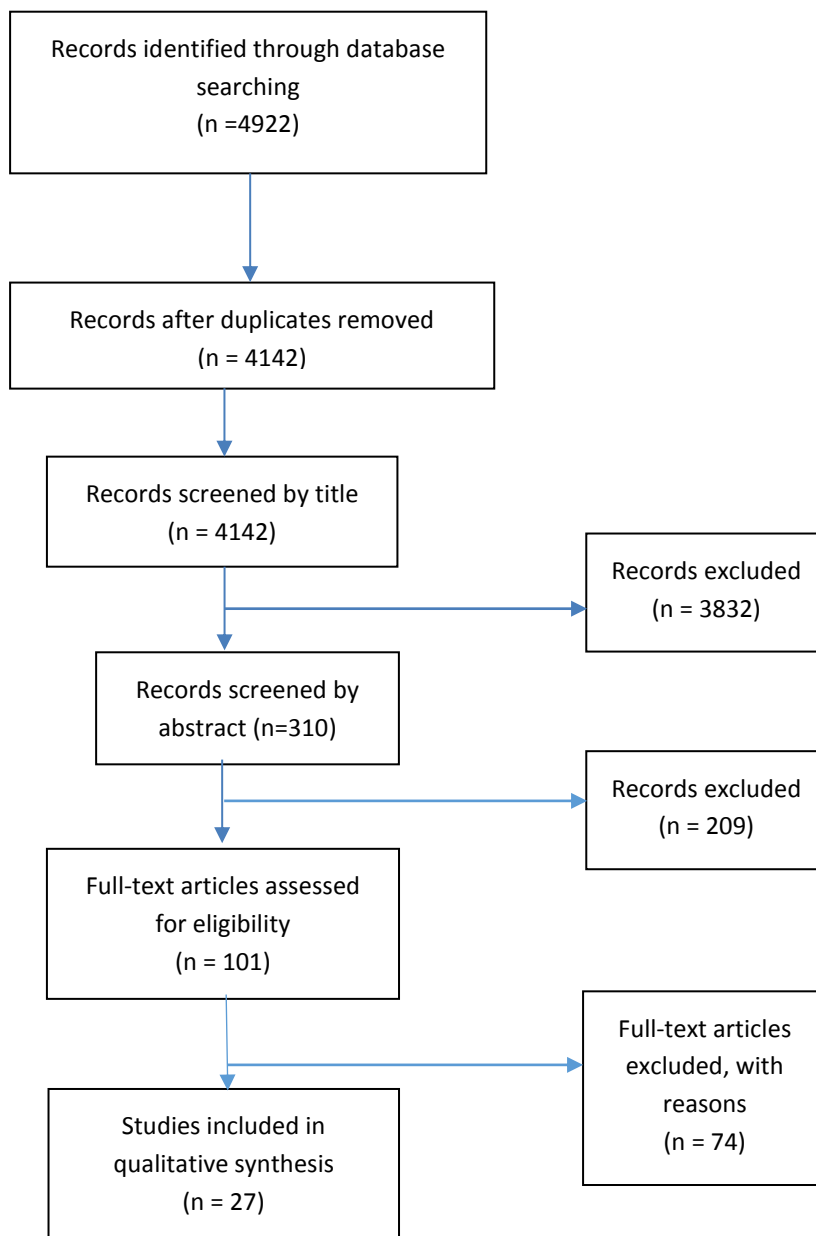


Figure 1: Communication skills training systematic review 2010-2017, PRISMA diagram

Papers were screened by two researchers. Disagreement on whether texts met inclusion criteria was resolved by a third reviewer. Methodological quality and risk of bias were assessed using standard criteria, based on the Cochrane EPOC Data Collection checklist and the 'Quality Assessment Tool for Before-After studies with

no control group'.⁷³ Data were extracted from all studies by two reviewers using standardised forms.

Descriptive data were collected on:

- Theory or model underpinning the intervention and method of development
- Context for training
- Type of participants
- Duration and model of delivery
- Teaching methods.

The primary outcome data collected were: the effectiveness of the training intervention, measured quantitatively, as behavioural changes, or as changes in knowledge, skills, attitude and well-being, and reported reliability and validity of measures. The systematic review protocol was registered on the PROSPERO database CRD42015023437

https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=23437

Results

We identified 101 studies for full text review. No full text was identified or accessible for 25 of these. Twenty-one were conference abstracts where no journal paper or report had been published, despite contacting the authors. Two were protocol papers for which the research had not been completed. Two were PhD theses from the United States which could not be obtained and which had not been published. Of the 76 papers with full text available, three required translation into English.

Papers were assessed by two reviewers. Following full text review, 49 papers did not meet the inclusion and exclusion criteria. This left 27 studies which met inclusion criteria. Reasons for exclusion included communication training not being the primary aim or a substantial part of the programme, not being specifically aimed at people living with dementia, qualitative studies, protocol papers with no further publications, and studies not being training interventions. One study was a duplicate publication under different authorship. There was insufficient homogeneity in outcomes for meta-analysis of the results.

Characteristics of included studies

Table 1 summarises the characteristics of the 27 studies included. Four were randomised controlled trials (RCTs), seven were controlled clinical trials (CCTs), and 15 were before-after study designs. One study was a secondary analysis of one of the RCTs.⁷⁴ Duration of direct training varied from one 45 minute workshop to 120 minute workshops fortnightly for six months. The modal length of training was four hours.

Methodological Quality and Risk of Bias

Two RCTs were assessed as being of high methodological quality with robust allocation methods and measures to prevent cross-contamination of intervention and control groups.^{75,76} Blinding of participants to a training intervention was impossible. Many of the outcomes were self-reported by participants, such as ratings of their confidence, attitudes or well-being, which presents a risk of social desirability bias, with trainees likely to rate themselves better following communication skills training. Where studies used more objective measures, such as tests of knowledge or observational measures of behaviour, their psychometric properties were seldom reported.

Review questions

We present findings in relation to each question posed for the review.

What theoretical frameworks or models underpin communication skills training in dementia care?

Fourteen studies referred to a theoretical framework, but there was little consistency between them (table 2). Five studies supported their training approach using educational theory, and three developed their intervention around a communication theory. One intervention used person-centred dementia care as a basis, and one used a clinically-derived theory of behavioural techniques. Other theories included caregiver stress and shared decision-making.

Table 1: Characteristics and details of studies included in the systematic review

Study	Design	Number of participants	Country/setting	Type of participants	Duration	Mode of delivery
Ampe et al 2017; ⁸¹	CCT	N=18 clusters	Belgium/Care Home	Care Home staff	2x4h workshops	Group
Beer et al 2012; ⁷⁸	RCT	N=47	USA/College	Nursing Aide Students	0.75h workshop	Group
Broughton et al 2011; ¹³²	CCT (cluster)	N=52	Australia/Care Home	Care home staff	1.5h session (50min DVD)	DVD
Chao et al 2016; ⁸⁸	B-A	N=105	Taiwan/Long term care facilities	Nurses	TOTAL=8h lecture/ workshop + other activities.	Group and online
Cockbain et al 2015; ⁸⁰	B-A	N=104	UK/Medical school	Medical students (1 st year clinical)	2h workshop	Group
Conway et al 2016; ⁷⁵	RCT	N=34	Australia/Community care	Care staff	1 h training + other activities	Group and 1:1
DaSilva-Serelli et al 2017; ¹⁹⁶	B-A	N=25	Brazil/ Assisted Living Residences	Nurses and caregivers	4h workshops + other activities	Group+ individual
Dizazzo-Miller et al 2014; ¹⁹⁷	B-A	N=45	USA/Not stated	Family Caregivers	3x2h workshops	Group
Elvish et al 2014; ⁸⁶	B-A	N=71	UK/Hospital	Hospital staff- varied, including doctors.	4x1.5h flexible	Group
Engel et al 2016; ¹⁹⁸	CCT	N=214	Germany/Unclear	Family caregivers	10x 2h sessions	Group
Franzmann et al 2016; ⁷⁷	CCT	N=116	Germany/Nursing home	Nurses/caregivers	TOTAL= 24h workshops	Group
Galvin et al 2010; ¹⁹⁹	B-A	N=540	USA/Hospital	Hospital staff	7h session	Group
Gitlin et al 2010; ²⁰⁰	RCT	N=237	USA/Home	Family Caregivers	Up to 9x 1h OT sessions +1x1h nurse session +4 phone reviews	1:1 advice to dyad

Study	Design	Number of participants	Country/setting	Type of participants	Duration	Mode of delivery
Goyder et al 2012; ⁸⁵	B-A	N=25	UK/Care home	'non-qualified' care home staff	2x unspecified workshops+ 3x 0.6h 1:1 supervisions	Mixed: group training + 1:1
Haberstroh et al 2011; ²⁰¹	CCT (+time series)	N=22	Germany/Home	Family caregivers	5x2.5h workshops	Group
Hobday et al 2010; ¹⁶²	B-A	N=40	USA/Care home	Care home staff- 'certified nursing assistants'	Approx. 1x 1h online	E-learning
Irvine et al 2012; ⁸⁷	B-A	N=68	USA/Care home	Care home staff – direct care workers+ nurses	Approx. 1x 2h online.	E-learning
Karel et al 2016; ²⁰²	B-A	N=38	USA/Long term care	Mental health providers and nurses	TOTAL= approx. 17.5hs	Group
Karlin et al 2014; ²⁰³	B-A	N=21	USA/Care Home	Care home staff- 'mental health providers'	2.5xday workshops +25 x 1.5h weekly phone consultation TOTAL=17.5h direct +39h calls	Mixed: group workshops+ 1:1 support
Levy-Storms et al 2016; ⁷⁹	B-A	N=15	USA/Nursing home	Certified Nursing Assistants	TOTAL= 4 h	Group
Liddle et al 2012; ²⁰⁴	CCT	N=29	Australia/Home	Family caregivers	2x 0.75h DVD sessions	DVD
Mason-Baughman 2012; ²⁰⁵	B-A	N=14	USA/Not stated	Family caregivers, friends, others.	1x workshop unspecified duration	Group
Passalacqua & Harwood 2012; ¹³⁵	B-A	N=18	USA/Care Home	Care home staff- care assistants	4x 1h weekly workshops	Group
Sprangers et al 2015; ⁶⁰	CCT (Cluster)	N=24	Netherlands/Care home	Care home staff- 'nursing aides'	1x OR 2x 1:1 'session' duration unspecified	1:1 coaching
Weitzel et al 2011; ⁸⁴	B-A	N=80	USA/Hospital	Hospital staff- varied	0.2h DVD	DVD
Williams et al 2017; ⁷⁴	RCT	N=42 dyads (29 staff & 27 PLWD)	USA/Nursing home	Nursing staff	TOTAL= 3h	Group + 1:1

RCT Randomised Controlled Trial; CCT Controlled Clinical Trial; DVD Digital Versatile Disc, CH care home, B-A Before and After; PLWD person living with dementia

Table 2: Theoretical frameworks cited

EDUCATIONAL THEORY	
Liddle et al 2012; ²⁰⁴	'Knowledge translation process'
Broughton et al 2011; ¹³³	'Knowledge translation process'
Beer et al 2012; ⁷⁸	'Learning Centred Classroom' motivational framework
Chao et al 2016; ⁸⁸	Adult learning theory (Knowles, 1984, 1996)
Cockbain et al 2015; ⁸⁰	Seven principles of andragogy + Kirkpatrick's evaluation levels
COMMUNICATION THEORY	
Sprangers et al 2015; ⁶⁰	Communication Enhancement Model
Haberstroh et al 2011; ²⁰¹	Developed TANDEM communication model
Franzman et al 2016; ⁷⁷	TANDEM communication model developed by Haberstroh; Stress-strain concept
OTHER THEORY	
Ampe et al 2017; ⁸¹	3-step model of shared decision making
Levy-Storms et al 2016; ⁷⁹	Kohler's (2004) ²⁰⁵ theory of behavioural techniques to enhance emotional connectedness
Elvish et al 2014; ⁸⁶	Social cognitive theories
Gitlin et al 2010; ²⁰⁰	Stress health process model, relating problem behaviours to carer stress
Passalacqua et al 2012; ¹³⁵	VIPS model ¹⁰⁶ based on person-centred care for people living with dementia ³¹

VIPS: Valuing the person living with dementia, Individualising care, Perspective of person living with dementia and Social relationships to enhance wellbeing

Thirteen studies referenced a theory to underpin the development of their training. One drew on two theoretical frameworks.⁷⁷ Several theories were used by more than one study but none was clearly dominant.

Teaching methods used

We examined the pedagogical approaches that the studies used. Table 3 summarises the methods used in the studies. Most of the studies of group communication skills training used a combination of didactic teaching, group discussions, self-reflection, video and role play, supported by written materials. Seven used 'homework', either before training or between sessions. Eleven studies used training DVDs or e-learning, to give maximum access to a large workforce across care homes and hospitals. Three DVD studies used actors to re-enact narratives illustrating good and bad communication practice. Two studies used real-life clips of interactions.^{78,79} Three studies reported on-line training. A total of 13 studies used video as a part of their training.

The need for practising communication skills and gaining feedback^{51,53} was supported by the use of role play, simulation or 'live' skills practice in nine studies. In one study, simulation was the principal training method, with positive effects on confidence,⁸⁰ although their measure was not validated.

Context of study as it relates to outcomes

There was huge diversity in the setting and focus of the studies identified (table 1). They were conducted in eight different countries, with most from the USA, and included a total of 2026 trainees. Settings for the training included 14 care homes, eight private settings, including assisted living residences, three acute hospitals and two higher education institutions. Trainee participants included care and nursing assistants, family caregivers, healthcare professionals (including doctors) and students of these professional groups. Control conditions included no intervention, self-help literature, and (in a train-the-trainer intervention) training by a different facilitator. Therefore no general inferences could be drawn concerning the interaction between context and effectiveness of the interventions.

Table 3: Teaching methods and tools

Study title	Didactic presentation	Written materials	Online or DVD materials	Role play (RP) / simulated patients (SP)	Home-work	Group discussion, activity or exercises	Video recordings	Theory	Self-reflection, shared experience	Problem-based learning	Individual advice to dyad
Ampe et al 2017, ⁸¹	√	√		√√ RP	√	√		√	√√		
Beer et al 2012, ⁷⁸	√					√	√√		√√		
Broughton et al 2011; ¹³³		√	√ √ DVD				√				
Chao et al 2016, ⁸⁸	√√	√	√√internet		√	√	√	√	√	√	
Conway et al 2016; ⁷⁵	√√	√	√		√	√	√√	√			√
Cockbain et al 2015; ⁸⁰		√		√ √ SP		√			√		
DaSilva Serelli et al 2017; ¹⁹⁶	√	√				√	√	√			
DiZazzo Miller et al 2014; ¹⁹⁷	√			√ RP		√					
Elvish et al 2014; ⁸⁶	√	√	√			√	√				
Engel et al 2016; ¹⁹⁷	√	√				√					
Franzmann et al 2016; ⁷⁷	√√	√			√			√	√√		
Galvin et al 2010; ¹⁹⁹	√√	√				√ case studies					
Gitlin et al 2010; ²⁰⁰		√									√√
Goyder et al 2012; ⁸⁵			√DVD			√	√acted		√		√
Haberstroh et al 2011; ²⁰¹	√	√		√ RP		√ case studies		√	√	√ group	

Study title	Didactic presentation	Written materials	Online or DVD materials	Role play (RP) / simulated patients (SP)	Home-work	Group discussion, activity or exercises	Video recordings	Theory	Self-reflection, shared experience	Problem-based learning	Individual advice to dyad
Hobday et al 2010; ¹⁶²		√	√√ internet				√				
Irvine et al 2012; ⁸⁷		√	√√ internet				√				
Karel et al 2016; ²⁰²	√√	√			√	√		√	√		
Karlin et al 2014; ²⁰³	√	√		√RP	weekly phone calls	√					√
Levy-Storms et al 2016; ⁷⁹	√√						√				
Liddle et al 2012; ²⁰⁴		√	√√ DVD				√				
Mason-Baughman et al 2012; ²⁰⁴	√	√									
Passalacqua & Harwood 2012; ¹³⁵	√			√ RP	√	√ and guided visualisation	√				
Sprangers et al 2015; ⁶⁰				√√ observation with feedback							√
Weitzel et al 2014; ⁸⁴			√√ DVD								
Williams et al 2017; ⁷⁴	√√	√	√					√			
Totals	17	19	11	7	7	15	12	8	8	2	5

Evidence of effectiveness of communication skills training

We investigated the outcome measures used in each study and whether there was any change in these measures that could be attributed to the interventions studied.

OBSERVATIONAL CHECKLISTS

Five studies measured the observed behaviour of trainees. Ampe et al⁸¹ used the validated OPTION scale of Shared Decision-Making⁸² to measure the degree of involvement of residents and families in discussions and advanced care planning. This comprised a five-point scale to measure the degree to which advanced care planning was discussed; there was no statistically significant change. Levy-Storms et al coded specific communication behaviours and residents' responses in video-recordings using time-sampling methods.⁷⁹ The checklist for communication behaviours was based on four therapeutic communication techniques taught in the intervention. Coders were blinded to pre- or post- intervention status and achieved acceptable inter-rater reliability (mean kappa =0.64). Prevalence of therapeutic communication behaviours increased significantly after training, but the frequency of residents' refusals of food was unchanged.

Williams used video-recordings to complete staff communication behaviour checklists,⁷⁶ and residents' behaviours based on the Resistiveness to Care Scale.⁸³ Coders were blinded and adequate inter-rater reliability was achieved ('90% agreement'). Results showed that staff use of 'elderspeak' (a communication style characterised by simplistic language, slowed speech, elevated pitch and volume and inappropriately intimate terms of endearment) reduced significantly after intervention, as did resident resistance to care, but neither persisted at three-month follow-up.

Two other studies used a checklist of positive and negative communication behaviours to rate 'live' observations, without rater blinding. Both studies reported statistically significant improvements in specific skills. Sprangers et al reported acceptable interrater reliability on their two checklist measures (75% and 79%),⁶⁰ but Weitzel et al reported no psychometrics.⁸⁴

The results suggest that observing trainee behaviours as an outcome measure is possible, but did not always demonstrate change.

SELF-RATINGS BY TRAINEES

Self-ratings of confidence in dementia communication by trainees were used in eight studies (table 4). All reported significant gains following the communication skills training, although in one case this was on a single subscale.⁸⁵ One study that reported psychometric properties found a significant and meaningful difference on their measure.⁸⁶ Six studies reported measures related to attitude (table 5). Of these, only one found a significant effect.⁸⁷ Ten studies measured change in knowledge following the training intervention (table 6). All studies reported gains. Most knowledge tests were developed by individual studies, with a focus on the learning outcomes of their training, and some based on other knowledge tests or translated tests (e.g.^{75,88}). Overall, there was evidence of knowledge gain from training, although the validity of the measures used in the studies was often uncertain.

Table 4: Self-ratings of confidence by trainees

Study	Self- rating measure used	Result reported	Validity
Cockbain et al 2015; ⁸⁰ N=144	Single question: rate confidence in communicating	post > pre	None reported
Conway 2016; ⁷⁵ N=34	Self-Efficacy Questionnaire based on Inventory of Geriatric Nursing Self-Efficacy	TG>CG	Adequate psychometrics reported
Elvish et al 2014; ⁸⁶ N=71	Confidence in Dementia Scale, CODE	post > pre	Adequate psychometrics reported
Galvin et al 2010; ¹⁹⁹ N=540	Five confidence items: [one communication]	post > pre on each item	None reported
Gitlin et al 2010; ²⁰⁰ N=237	Five-item Caregiver Confidence using new activities in past month (not communication)	TG > CG	None reported
Goyder et al 2012; ⁸⁵ N=25	Sense of Competence in Dementia Scale	post = pre for whole scale; post > pre for 'building relationships' subscale	Adequate psychometrics reported.
Irvine et al 2012; ⁸⁷ N=68	Video situation test, VST, 2 items x 4 scenarios: confidence in knowing what to do next & how to alter the behaviour 20 item self-efficacy measure	post > pre Stable on repeated baseline, post > pre	VST self-efficacy acceptable re-test reliability (r=0.63). Self-efficacy measure acceptable re-test reliability (r=0.76)

Post= post intervention measure; pre= pre-intervention measure; TG= Treatment group; CG= control group; IRR- Interrater reliability; VST Video Situation Test

Table 5: Self-rating of attitudes

Study	Self-rating of attitude	Results	Validity
Chao et al 2016; ⁸⁸ (N=105)	Communication Skills Attitudes Scale translated into Chinese.	post = pre	Adequate psychometrics.
Conway et al 2016; ⁷⁵ (N=34)	Approaches to Dementia Questionnaire	post = pre	Adequate psychometrics.
Engel et al 2016, ¹⁹⁸ (in German) (N=214)	Family questionnaire	TG>CG	Not reported
Goyder et al 2012; ⁸⁵ (N=25)	Approaches to Dementia Questionnaire	post = pre	Not reported
Irvine et al 2012; ⁸⁷ (N=68)	18-item attitude measure	Stable on repeated baseline, post = pre	Previous study reports acceptable re-test reliability (r=0.7)
Passalacqua & Harwood 2012; ¹³⁵ (N=26)	Empathy: Interpersonal Reactivity Index Attitudes to aging, dementia and person-centred care.	post = pre Hope item post > pre; For the rest, post =pre	Items taken from longer validated measures.

Table 6: Self-rating of knowledge

Study	Knowledge test	Results	Validity
Broughton et al 2011; ¹³³ (n=52)	17-item, open questions on: 'Strategies to support communication & memory'	TG showed post>pre; CG did not. Overall TG=CG	Not clear. Open questions, blind rated tests.
Chao et al 2016; ⁸⁸ (n=105)	Communication skills knowledge scale (translated into Chinese)	Post > pre at 4 and 16 weeks.	Content Validity Index 0.92; Cronbach's alpha=0.94
Conway et al 2016; ⁷⁵ (n=18)	Communication Support Strategies in Dementia knowledge test	post>pre	None reported
DiZazzo-Miller et al 2014; ¹⁹⁷ (n=45)	18 item 'Knowing how to assist in five areas of ADLs'; [six questions on 'communication and nutrition']	TG >CG on each of 5 modules; biggest effect for 'communication' module	Content validity. No other psychometrics reported.
Elvish et al 2014; ⁸⁶ (n=71)	16 item Knowledge in Dementia Scale; [2 items specifically on communication]	post>pre	Psychometrics reported. Test published.
Galvin et al 2010; ¹⁹⁹ (n=540)	nine-item 'Knowledge about dementia'	post>pre	None reported.
Hobday et al 2010; ¹⁶² (n=40)	15-item multiple choice (MCQ) 'Dementia Knowledge Test' Test published.	post>pre	Cronbach's alpha=0.94. No other psychometrics.
Irvine et al 2012; ⁸⁷ (n=68)	Video situation knowledge test, 4 scenarios: MCQ for each about 'what to do next'	No change on repeated baselines, post>pre	Used previously by same group but no psychometrics reported
Liddle et al 2012; ²⁰⁴ (n=29)	Communication & memory support in dementia test	TG showed post>pre (NS); CG, post=pre.	No psychometrics reported. Blinded markers used.

TG= treatment group; CG= control group; ADL activities of daily living; MCQ multiple choice questions; NS not significant

Discussion

This review aimed to identify and evaluate training interventions designed to improve communication in dementia care. Papers published between 2010 and 2017 were evaluated, to update the systematic review by Eggenburger et al, which included papers published to 2010.⁵⁶ Communication skills training research for people living with dementia has increased substantially since 2010. Twenty-seven studies were identified, mostly before-and-after designs of variable methodological quality. They used a range of theoretical approaches, and spanned different settings. Few studies were directly applicable to our situation, not being based in acute hospitals or aimed to improve healthcare professional's communication with people living with dementia.

Studies demonstrated different teaching approaches, although it was not possible to assess the effectiveness of specific methods. Traditional methods, such as didactic presentations, reading materials and group discussions were popular, as were video recordings, DVD or online materials. Role-play and simulation were also used. The duration of direct training ranged from a single 45-minute workshop to 120-minute fortnightly workshops for six months.

Studies evaluated effectiveness of the training interventions using a range of outcome measures, including ratings of observed trainee behaviours, and subjective ratings of confidence, attitude and knowledge. Several studies developed their own measures or adapted them from previously published measures. Trainees' communication behaviours showed a variable response to training. Two of the five studies measuring this aspect reported statistically significant improvements in confidence and knowledge after training.

Previous studies indicate that role-play and simulation are both viable and acceptable teaching approaches. The review also shows that most interventions used a combination of several approaches to teaching skills. There is evidence that trainee knowledge and confidence improves after training. However, given the heterogeneity of the studies included in this review, it is difficult to draw conclusions about what constitutes optimal

communication skills training. The low numbers and poor quality of relevant studies suggests there is no existing intervention that could be adapted or used in acute care.

CHAPTER 3: CONVERSATION ANALYTIC STUDY

Introduction

Conversation analysis (CA) is a socio-linguistic method for studying patterns in real-life communication encounters. It analyses what communication partners actually do, rather than what they think or say they do.

To understand how healthcare professionals communicate with people living with dementia, and to what effect, we conducted a study using CA to analyse video recordings of real ward encounters. No matter how expert, neither patients, family members nor healthcare professionals find it easy to articulate the tacit knowledge they use when communicating, but video-based research can specify such knowledge and skills. CA is a research method that originated in sociology but draws on insights from other disciplines such as psychology and linguistics.⁸⁹ Its aim is to study the structure and order of naturally occurring talk during interactions. The method has been widely used to study healthcare interactions (e.g.^{62,90, 91,92}). We focused on identifying the everyday challenges of communicating with people living with dementia in the acute inpatient setting and importantly, the communication skills that may overcome these issues.

We harnessed the potential of video-based research by using CA to:

1. classify verbal and non-verbal practices and patterns within healthcare interactions involving experienced clinical communicators
2. analyse how the broad recommendations for good practice actually get implemented and operationalised
3. analyse episodes where there are challenges to their operationalisation and the ways these challenges are managed.

Methods

The study took place on eight acute geriatric medical (Health Care of Older People) wards in a single large teaching hospital. It was approved by the Yorkshire and Humber - Bradford Leeds NHS Research Ethics Committee, reference 15/.YH/0184 We adapted protocols for recruitment, consent and data collection used by team members during previous studies of

dementia⁶ and CA studies.^{52,64} These protocols were developed with Patient and Public Involvement (PPI) input.

Participation eligibility

We included male and female patient participants, who were aged 65 years or above and had been admitted to an acute geriatric medical ward. All had a diagnosis of dementia recorded in medical notes, and ward staff reported they had difficulties communicating. Healthcare professional participants were eligible if they were a registered healthcare professional (doctor, nurse or allied health professional). Any relatives or friends of patient participants, or other healthcare professionals or students present during data collection also participated in the study, subject to consent.

Patient participants were excluded if: they did not speak English; were unable to give informed consent and we were unable to obtain consultee agreement; they had a diagnosis of Parkinson's disease; they were assessed by the clinical team as likely to die within seven days.

Recruiting and consenting participants

Participant recruitment was carried out by two clinical researchers (Rebecca O'Brien and Rebecca Allwood), both Health and Care Professions Council-registered speech and language therapists.

Recruitment of healthcare professionals began in advance of recruitment of people living with dementia, in August 2015. Healthcare professionals were recruited by personal approach, or via ward managers. We aimed to recruit healthcare professionals who were considered by peers to be 'good communicators' or 'good with patients living with dementia'. We aimed to achieve a spread across categories of healthcare professionals (doctors, nurses and therapists). We obtained written informed consent from the healthcare professional. Table 7 gives details of healthcare professionals recruited and videoed. Video recordings including allied health professionals, included five with physiotherapists, three speech and language therapists and two occupational therapists. Those with nurses included eleven staff nurses, one advanced nurse practitioner, and seven

with mental health nurses. Doctors were three consultants and eight junior or middle-grades.

Table 7: Conversation analysis video-study recruitment data

	Number of healthcare professionals recruited	Number of healthcare professionals recruited and then videoed	Number of videos collected
Nurses	19	11	19
AHPs	11	6	10
Doctors	11	9	12
Total	41	26	41

AHP Allied Health Professional

Patient participants were approached by a clinician working on the ward who introduced the patient to the researchers, if willing. The researcher discussed the study with the patient, and assessed their mental capacity to give or withhold consent to participate. In accordance with the Mental Capacity Act 2005, patients were supported in their understanding by the speech and language therapist researcher, for example, using a simplified, one-page information sheet, and by showing them the video camera. The two speech and language therapists independently assessed clinical severity of communication impairment.

No patients in this study had mental capacity to give informed consent, and the requirements of the Mental Capacity Act were followed. A family member or informal carer was approached and, following explanation of the study, asked to give consultee agreement. Given the sensitive nature of making video recordings of patients whilst in hospital, we did not include participants if they had no family or other personal consultee.

In response to a suggestion arising from pre-study PPI, written informed consent was sought from any relatives or friends who wanted to be included in the video recording of the interaction between a patient and healthcare professional participant. This process allowed

us to potentially include sensitive conversations between healthcare professionals and people living with dementia, where best practice would be to involve a relative or friend.

After an encounter had been filmed, participants and personal consultees were shown the video on a tablet computer, and asked for further consent or agreement for dissemination (for example, in teaching, at conferences, or on material posted to the internet).

Data collection

Data collection was carried out by clinical researchers Rebecca O'Brien and Rebecca Allwood. Interactions on acute geriatric medical wards between healthcare professionals and people living with dementia were video-recorded. To identify suitable interactions for recording, researchers talked to ward staff at the beginning of each day about what encounters were expected to occur with consented patients (e.g. an occupational therapist assessment, a consultant doing a ward round). We sought to record routine interactions for staff. We did not film intimate interactions such as washing, dressing or toileting. All the videoed interactions were initiated by the healthcare professional.

The research speech and language therapists set up the equipment to video record the encounter. A camera with a wide-angle lens was used to maximise capture, connected to a remote microphone worn by the healthcare professional, where appropriate. Separate audio-recordings were made using a digital audio recorder. Cameras, audio recorders, microphones and the researcher were positioned to be minimally disruptive to the interaction. To maintain confidentiality, any patient name visible to the camera was covered up in advance of recording, or edited out afterwards. We recorded the conversations for as long as they lasted.

In total, 41 conversations were video-recorded, between September and December 2015. This resulted in a total of 378 minutes of data from 26 patient participants (ten men) and 26 healthcare professional participants. Eleven (27%) video recordings included a person with dementia who had mild communication impairment, 22 (54%) moderate and 8 (19%) severe. Patients could be filmed more than once, with a different healthcare professional, so some staff and patients appeared up to three times in our dataset. The average length of a recording was 9.24 minutes, with a range of 2-30 minutes. The video recordings included

thousands of conversational turns, each encapsulating many interactional behaviours. Recordings were digitised and stored according to University of Nottingham data protection policy. Each encounter was allocated a code to indicate the patient and healthcare professional whilst maintaining anonymity.

Brief observational field notes, on the context of each interaction, were recorded by the researcher to identify any contextual events that may have influenced the interaction.

Analysis

Data preparation and analysis were carried out by the research speech and language therapists, supported by Suzanne Beeke and Alison Pilnick, the VOICE study's expert conversation analysts. Recordings were transcribed verbatim and using CA notation, by professional transcribers, then anonymised and analysed using CA. The conventions of CA notation are described in Appendix 1.

CA was used to reveal the structure of encounters, in terms of interactional phases, and recurrent and systematic interactional features and patterns. This method is well-established in the field of doctor-patient interaction.^{62,91,92}

A core objective of the analysis was to generate recommendations for practice. As a result, we were particularly interested to identify communication strategies that would be 'teachable'.

A selection of recordings was viewed by the team, alongside their CA transcriptions, to identify key phases and patterns of interaction. Data were then organised into collections of cases illustrating similar phenomena, which were examined to identify (i) talk used by healthcare professionals when faced with challenges in communicating across different clinical encounters, and (ii) patients' interactional responses to healthcare professional talk. Within the relevant sequences, close attention was paid to patterns of similarity and difference in the details of talk and body movement, in order to identify those healthcare professional practices which appeared most effective.

We drew on relevant evidence generated by other CA studies of healthcare talk, as required by the CA approach, as a means of ensuring the robustness, validity and generalisability of

findings.^{62,66} Procedures to verify and validate findings included group data analysis sessions with experienced CA researchers on the VOICE study team, and at external centres of excellence for CA and healthcare research, along with consultation with dementia clinicians and PPI representatives, using raw or disguised data according to level of consent gained.

All names in our data have been changed to protect anonymity.

Results

Phases of the encounter

In this dataset, healthcare professionals completed a wide variety of healthcare interventions, including medical ward rounds, medication administration, recording of vital signs, leg ulcer dressing, swallow assessments, assistance with eating and drinking, assessment and support with walking, and assessment of activities of daily living.

Our analysis commenced by ascertaining the phases of ward-based hospital encounters. The CA literature highlights the 'institutional nature' of healthcare interactions. These follow a more predictable structure than ordinary conversation. The phase structure of institutional interactions affects how the healthcare encounter is progressed by those involved, because speakers normatively orient to the transitions between phases. Although phases do not follow an exact sequence in all interactions, being described as 'vague orderly' by Jefferson⁹³ (p419), trying to identify an over-arching structure is important.

There is extensive literature examining the phase structure of a variety of healthcare encounters,⁹⁴⁻¹⁰⁰ but we found only a single CA study assessing the structure of ward-based, acute hospital encounters, which analysed admissions interviews.¹⁰¹ Consequently, we drew on other contexts for comparison. Research in nursing and medical encounters describes an opening phase, followed by the presenting problem or complaint. An information gathering phase, which may be an examination or assessment, is followed in medical encounters by diagnosis and treatment recommendations,⁹⁷ whilst in nursing encounters this may be described using terms such as 'counsel'⁹⁹ or 'intervention'.⁹⁸ All describe ending with a closing phase.

Despite the diversity of tasks in the current dataset, a broad five-phase structure was evident: opening; reason for the visit; information gathering; the 'business' phase; closing.

All encounters commenced with an *opening phase*, which incorporated social greetings and personal identifiers, frequently with the healthcare professional using the patient's name, their own name and their role. Unlike other healthcare professionals, nursing staff appeared not to introduce themselves by name or identify their role to patients, perhaps because of their consistent presence in a ward bay for a twelve-hour shift, not warranting repeated introductions, unlike staff with a more transient presence.

In the next phase, healthcare professionals introduced their *reason for the visit*, since they were the initiators of these interactions. This represents a fundamental difference between our dataset and previous CA findings for medical encounters, where the patient initiated the interaction or presented a problem to the healthcare professional. In most cases in our dataset, healthcare professionals were explicit about the purpose of their visit. The exception to this was in routine ward rounds, where doctors tended to lead with a typical physicians' opening question of 'How are you feeling today?', presumably as an invitation to encourage patient troubles-telling.⁶²

In some cases, the next phase was one of *information gathering*. This phase was highly varied, including history-taking questions about current concerns and symptoms ('Do you feel sick?' 'Any pain anywhere?'), and recent events ('Did you sleep well?'), as well as attempts to establish patient wishes or concerns ('What would you like to happen?'). On occasion, tasks were completed without a significant information gathering phase.

Given the heterogeneity of reasons for the healthcare encounters, the phase in which these interventions were undertaken was designated the '*business*' phase. Tasks included recording of vital signs and physical examinations, assessment of and assistance with physical, cognitive, swallowing and everyday functioning abilities, and completion of care tasks, such as taking medications, feeding, and personal care. All included a component of physical action on the part of the healthcare professional and patient, working more or less collaboratively.

The *closing phase* of the encounter was typically initiated by the healthcare professional and included planning for future conversations, or arrangement of care activities or assessments.

Features prioritised for in-depth analysis

The 'business' and closing phases were notable because they were frequently associated with interactional trouble around: (i) *requests and refusals*; (ii) *closings*. We focused on these for in-depth analysis.

The 'business' phase regularly involved the healthcare professional conducting healthcare tasks with the person living with dementia, which were achieved through request sequences by the healthcare professionals. CA research suggests that refusals in response to requests are dispreferred (i.e. avoided or less favoured than alternatives), and usually accompanied by extensive explanation or mitigation. However, analysis indicated that in 28 of the 41 recordings (68%), patients responded to a request with some level of reluctance or refusal, often repeated refusal, and with little or no mitigation.

Secondly, we identified recurring interactional difficulties in bringing these encounters to a close, along with examples of more successful closing phases.

Requests and refusals

Definitions of requests vary, but typically they are expressions intended by a speaker to ask something of the recipient, such as an action. 'Directives' can be distinguished from requests as 'telling' people to do something, instead of 'asking'.^{102, 103} CA study of requests, across a range of datasets, has established that they can be analysed in terms of 'entitlement' and 'contingency'.^{102, 104, 105} A speaker displays, by the format of their request, how entitled they are to ask the recipient to do something (entitlement), and acknowledges the perceived difficulty of the task, and potential barriers to completion for the recipient (contingency).

In this study we designate the term 'request' to identify talk where the healthcare professional attempts to get a patient to do an action (such as 'Lift your leg'), and also for utterances that ask permission for the healthcare professional to conduct an action

involving the patient (such as ‘Can I lift your leg?’). Compliance with a request can take the form of an immediately embodied response (e.g. patient lifts leg) completed without comment, or it can be a purely verbal response, or both. Rejection may occur, but this contravenes general interactional preferences, and when refusal occurs, speakers typically carry out interactional work to mitigate rejection, such as hesitations, or giving explanations for refusal that clarify their failure to comply.¹⁰⁶

In our data, during each task the healthcare professional issued a set of requests for action from the patient, or requested permission to act. For example, when examining a patient’s chest, the healthcare professional might request permission to listen to the chest, then ask the patient to adjust their clothing, lean forward, and take repeated deep breaths. Each of these individual requests required a certain degree of physical action or passive cooperation from the patient to be ‘successfully’ completed, from the viewpoint of the healthcare professional. The healthcare professional interpreted the patient’s response to their requests through the patient’s verbal responses and through their embodied (nonverbal) response, that is, whether or not they completed the action.

Responses from patients could be classified in terms of whether they agreed to the request, refused the request, or whether the response was ambiguous, and also whether responses were exhibited in a verbal or embodied (non-verbal) way (box 2):

Box 2: Responses to request for action

REQUEST for action
or permission



1. Agreement: verbal, non-verbal or both

Extract 124_211

28 HCP: can we try and have a stand up then?

29 PAT: °yeah° (.) yea::h we ca:n



2. Reluctance/refusal: verbal, non-verbal or both

Extract 114_225

12 HCP: do you ↑want ↑to ↑have ↑a ↑sit ↑down ↑on

13 ↑the:re ↑for ↑me,

14 (1.0)

15 PAT: no there's no nee:d



3. Ambiguous response: mismatch of verbal and nonverbal, unclear verbal intention or passive non-response

Extract 122_220

92 HCP: hello:: (0.6) so can you lick your lips cos

93 they look a bit dry::

94 (0.6)

95 PAT: ye↑a::h (no physical response from PAT)

96 HCP: yeah,

97 (0.4) (no physical response from PAT)

98 HCP: they're a bit dry:::,

99 (0.6) (no physical response from PAT)

Four of the 28 encounters displaying refusal, included separate examples of purely embodied (non-verbal) refusals, as well as verbal refusals. Only two comprised non-verbal refusals alone. The refusals were classified as overt refusals (verbal and non-verbal), mitigated refusals, and passive non-responses. It was not possible to characterise a small minority of refusals and these cases were excluded from analysis.

Overt refusals

Patients responded with overt verbal refusals in 13 episodes over nine encounters without any mitigation:

Extract 1 133_206

5 HP: I ↑was ↑just
6 ↑wondering if I could help you with (0.4) relieving some
7 ↑↑pressure on ye:r ↑botto:m
8 (1.0)
9 PT: °°no::°° hhh

In the above example, the patient gives no non-verbal indication that she intends to comply following her 'no' response. Purely non-verbal overt refusals without any verbal mitigation occurred in six encounters; examples included the patient deliberately turning their head away from an approaching spoon, closing their mouth against a cup, or removing their arm from a position needed to take a blood test.

Mitigated refusals

Mitigated refusals were noted in 14 encounters, with eleven of these containing multiple instances. Patients presented three clear accounts to support their reasons for refusal: lack of ability, lack of willingness, and lack of perceived need. Some refusals were followed by words that were difficult to interpret, and it was not possible to assess whether this constituted a mitigation or not.

LACK OF ABILITY

People living with dementia in hospital are likely to have impairments as a consequence of acute or chronic ill-health, making it unsurprising that *lack of ability*, or lack of confidence in their ability, to do the requested task might explain, in part, refusal or reluctance to comply.

Extract 2 124_203

- 30 HCP: ↑can I have a ↑little↑look at >these legs first can you
31 just< march them up and do:wn
32 PAT: °how ↑could I?° (.) because I hurt me bo↑ttom when they
33 made me sit in that ↑chai:r this morni:ng,

LACK OF WILLINGNESS

On occasion, however, patients explicitly stated that they did not *want* to carry out the requested action, as the following assertions demonstrate:

- 133_215 no no::: don't want to
107_203 I don't want to I've had enough
122_220 I don't want any now
114_225 that's it that's it I don't want none a this
115_202 oh no I don't want nenenene

At times, patients explained their reluctance in terms of contingencies that could be legitimately expected to reduce their engagement, such as pain.

LACK OF PERCEIVED NEED

Sometimes patients justified their refusal by clearly stating a lack of perceived need:

Extract 3 114_225

- 33 HCP: do you ↑want ↑to ↑have ↑a ↑sit ↑down ↑on ↑the:re ↑for↑me,
(1.0)
34 PAT: no there's no nee:d,

Patients questioning the necessity of the requested action indicates a mismatch between their perception of medical or social needs and how these were perceived by the healthcare professional. In the extract below, the patient dismissed any problem with her arm, even though it was in plaster (but not easily visible as it was under her cardigan at the time of this encounter):

Extract 4 117_227

- 34 HCP: Mary (0.4) can I have a look at your ↑a::rm (0.8)
35 at [thi:s]
36 PAT: [↑(1 syllable)] WHY what's up with i:t (0.4) my arm
37 HCP: you ↑broke i:t
38 PAT: I ↑'aven't broke ↑i:t,
39 HCP: can I have a little [look^k,]
40 PAT: [°it's°] (.) ↑normal it's AL↑RI:GHT
41 HCP: u[:::::m]
42 PAT: [I 'AVE]N'T BROKE ↑I::T
43 HCP: let's check it's okay

The patient repeatedly counters the healthcare professional's initial request, and ensuing explanations and requests. The healthcare professional is presented with a dilemma of having to address a healthcare need in a patient who lacks insight into that need.

UNCLEAR TALK

In a number of instances, patients clearly indicated reluctance or refusal, but additional verbal content was ambiguous, and may have been an attempt at mitigation. In the context of dementia, where linguistic and cognitive impairments impact on reasoning and language, a patient may struggle to justify their refusal. In such ambiguous circumstances, these patient comments were often *treated* as mitigated refusals by the healthcare professionals, for example:

Extract 5 133_206

- 9 PT: °no::° hhh
- 10 HCP: no::? (0.6) .hhh (0.4) wε- I don't want you to get a
- 11 numb bu:m
- 12 (0.6)
- 13 PT: °(and our) charlie said °because er I don't always get
- 14 the right number I don't know°
- 15 HCP: ↑no:::?
- 16 PT: cos with me eyesi:ght
- 17 HCP: yea:h (.) well (.) ↑how ↑about >↑I just< stand you up
- 18 he:re for a minute or two:. (0.8) just to get you [off
- 19 your]=
- 20 PT: °[(I think there)]°
- 21 HCP: =bottom (0.8) would that be o↑ka:y?

Passive non-responses

Ten encounters involved healthcare professional requests which failed to elicit any obvious verbal or embodied response from the patient. It is possible that non-responses were a deliberate choice to refuse the requested action, a failure to understand the request or appreciate that a response was required, or an inability to undertake or complete the action requested combined with the inability to convey this. CA does not allow exploration of potential reasons for non-response unless evident in the talk. If a patient's interactional behaviour lacks any additional relevant information, then the hearer (healthcare professional or analyst) may only speculate about reasons for refusal. However, the manner in which the healthcare professional reacts to such non-responses indicates their interpretation of the non-response, as they attempt to engage the patient in willing cooperation with their planned intervention.

Healthcare professional requests preceding a refusal

In an effort to understand the high rate of refusals in this dataset, we analysed the nature of healthcare professional requests which preceded overt and mitigated refusals. Alternative request patterns that elicited successful responses were sought in order to pinpoint potentially trainable practices.

Healthcare professional requests preceding overt refusals indicated sensitivity to the concepts of entitlement and contingency described in CA literature, both of which can be considered to be 'high' or 'low'. In most cases, healthcare professionals displayed low- to moderate-entitlement to make their request, with high contingency, suggesting an assumed lack of ability or willingness to engage on the part of the patient.

LOW ENTITLEMENT, HIGH CONTINGENCY REQUESTING

In some of the overt refusal sequences, healthcare professionals displayed extremely low entitlement to make requests of the people living with dementia. In the most striking case, shown in Extract 6 below, a nurse uses the 'I was wondering' format (lines 5-7), described in calls to out-of-hours GP services by Curl and Drew.¹⁰¹ The healthcare professional is asking permission to help the patient with the task of 'relieving some pressure on your bottom', meaning the patient needs to stand up. This initial request for permission resulted in a considerably delayed but unmitigated 'no' from the person living with dementia in line 9:

Extract 6 133_206

- 1 HCP: ↑hello ↑mau↑↑ree::n,
2 PT °hello°
3 HCP: ↑how are ↑you:?
4 PT: not too: bad,
5 HCP: not too bad, (0.6) good good (0.4) I ↑was ↑just
6 ↑wondering if I could help you with (0.4) relieving some
7 ↑↑pressure on ye:r ↑botto:m
8 (1.0)
9 PT: °no::° hhh
10 HCP: no::?

By saying ‘just wondering’, the healthcare professional clearly exhibits her doubt about whether the person living with dementia will comply with the request. The healthcare professional does not ‘know’, she can only ‘wonder’ if the proposed course of action will be considered reasonable or acceptable by the patient. The healthcare professional’s ‘wondering’ suggests she anticipates *contingencies* limiting the patient’s ability or willingness to grant the request. Framing her proposal as an offer to help with an intervention indicated that the healthcare professional felt the patient may be unable to complete the task unaided. We postulate that use of low entitlement and high contingency requesting presents the patient with a clear option to refuse the request.

In doing so, the nurse demonstrated a positive orientation to patient choice, empowerment and autonomy, consistent with current ‘best practice’ thinking about person-centred dementia care.^{31,107} However, the tendency of the healthcare professionals to project low entitlement to request actions from patients in these data, whilst appearing warm and respectful of the patient’s autonomy, presents a clear opportunity for refusal in interactional terms. If a person living with dementia is uncertain about where they are, or why they are in hospital, and unclear who the healthcare professional is (all of which was

evident in our dataset), then this lowly-entitled request may fail to convey the urgency or importance of an intervention and fail to identify the requester as an expert professional. Therefore, the patient may not appreciate the consequences of a refusal. Our analysis suggests that the unintentional consequence of asking in this low-entitled, apparently ‘person-centred’ way, is that a healthcare professional may be inadvertently communicating that the interaction or intervention is of low priority, making a refusal seem inconsequential and, therefore, more likely.

Overt refusals in our data were also preceded by very lowly entitled ways of requesting, structured with the permission-seeking prefaces ‘Is it alright if I...?’ or ‘Is it okay if I...?’, as in Extract 7 below, in which a junior doctor wishes to examine a patient’s chest during a routine encounter:

Extract 7 143_227

50 HCP: °↑all [ri::ght] mary° (.) is it o↑kay if I have a=

51 PAT: [huh huh]

52 HCP: =↑↑listen to your che:st

53 PAT: ↑NO::: I didn’t know th’t

54 HCP: no::,

Here the healthcare professional leads with a permission-seeking question ‘Is it okay if I have a listen to your chest?’, which demonstrates the conditional ‘if’ and implies the possibility that the request will not be acceptable to the patient.

‘MIDDLE’ LEVELS OF ENTITLEMENT AND CONTINGENCY

Healthcare professionals also requested actions, which were subsequently overtly refused, using questioning, modal verb formats, such as ‘would you...?’ and ‘can you...?’. In the literature, these are recognised as having higher entitlement compared to ‘wondering’ requests. The modal verbs will/would and can/could invoke the patient’s willingness or ability to engage with the request.

Prior to the following exchange, the healthcare professional had spent many minutes trying to verbally encourage and physically support a person living with dementia to eat his lunch,

as he paced the ward, refusing to sit down. An example of a ‘would you’ request format then follows:

Extract 8 103_225

398 HCP: ↑↑would ↑↑you ↑↑li:ke a↑↑nother spoon[ful] da↑vi::d?

399 PAT: [n-]

400 PAT: no no no (0.4) no don't make me any mo::re

401 HCP: ↑↑that's ↑↑fine

The patient chooses to emphatically decline more food. By posing the question in a ‘would you like?’ format, the option to decline is presented, and signals ‘not liking’ as a possible contingency on which basis the patient has the choice to accept or decline.

Healthcare professionals also prefaced requests with ‘can you’ prior to a number of overt refusals, with the modal verb here referencing the patient’s ability to agree to the request. In the extract below the doctor is attempting to listen to the patient’s chest with a stethoscope, when he asks the following:

Extract 9 140_211

202 HCP: >can you< [take a] ↑deep breath in and ou:t my dear

203 PAT: [u:::h]

204 PAT: no::

205 HCP: just try

206 PAT: no:: I don' think c'n

As is frequently seen in this data set, the healthcare professional’s request for a new action by the patient is formatted as a question of ability, ‘Can you take a deep breath in and out?’. Whilst this would normatively typically be treated as a request for the patient to start taking deep breaths, rather than a query as to whether they are able to do deep breathing, in this case the patient’s initial blunt ‘no’ response does not clearly differentiate. If the patient had said ‘no I can’t’ or ‘no I don’t want to’ this would have clarified the basis for the refusal. The healthcare professional handles the response as if it was declined due to lack of perceived

ability by encouraging the patient to 'just try' (line 205). The patient's response at line 206 clarifies that her refusal was based on her 'thinking' (indicating some uncertainty) that she may be unable to, possibly due to the back pain she had reported. By using the format 'Can you do X?' the healthcare professional has introduced the possibility of a yes or no response, and their use of 'can' suggests a potential contingency whereby the patient may be incapable of breathing deeply.

In another example, a healthcare professional uses a construction which potentially references both capability and willingness, to propose a walk for rehabilitation purposes:

Extract 10 107_203

18 HCP: so ↑margery do you feel up to having >a bit of a<

19 ↑↑wa::lk today

20 PAT: ↑no:::,

21 HCP: no ↑why ↑not?

22 PAT: °don't feel like walking°

The healthcare professional's format here offers an inbuilt justification for refusing the proposed activity, namely that Margery won't 'feel up to it', which she then confirms as the reason. 'Feeling up to' doing something inherently suggests both willingness and ability, and the patient could decline on the basis of either.

It can be argued that the healthcare professionals in these cases demonstrated higher levels of entitlement and less orientation to patient contingencies than in the 'I wonder if?' and 'Is it alright if?' prefaced requests, as is argued by Curl and Drew in their comparative study of these two types of requesting.¹⁰¹ In the modal requests, the contingencies of willingness or ability are exhibited, but not necessarily presented as problematic, and in this way the healthcare professionals may not be projecting a refusal as strongly as in the 'wondering if' requests.

HIGH ENTITLEMENT AND LOW CONTINGENCY REQUESTING

Most requests prior to an overt refusal were characterised as either low or medium in entitlement. The only exceptions were found during a single encounter in which a

healthcare professional was attempting to complete a swallow assessment. In an encounter lasting approximately twelve minutes the patient refused (either verbally or non-verbally) almost all efforts to give him something to either eat or drink, despite the healthcare professional employing multiple physical and therapeutic strategies, and interactional approaches. The most overt of these refusals occurred some time into the encounter, following requests which combined statements of intent with embodied requests, i.e. presenting food or fluid to the patient's mouth, as in the extract below:

Extract 11 122_220

150 HCP: oka:y (0.4) so:::,

151 (0.4) we ↑do ↑it to↑gether,

152 (HCP moves glass, with hand over hand, towards PAT)

153 PAT: (here none of that)

154 (PAT moves glass away from himself) (1.0)

155 HCP: okay (0.6) you tell me when you're ready::

Although the patient's talk at line 153 is difficult to decipher, the accompanying embodied refusal (line 154) and the healthcare professional's management of it indicated that it can be analysed as a refusal. The healthcare professional's verbal request, 'we do it together', following her indication of topic shift in the prolonged 'so:::', is formatted as an announcement of what will happen, without any projection of an option to refuse or accept, and without any overt reference to contingencies that might make the task arduous for the patient. The issuing of a request as a 'bald imperative' is a highly-entitled way of requesting, and implies low or no contingencies.¹⁰⁸ In this case, the healthcare professional also moved the glass towards the patient and thereby embodied a highly-entitled directive, which the patient refuted with his emphatic 'here none of that' and his movement of the glass away from him. This example demonstrates that highly-entitled requesting does not necessarily result in acceptance. However, as will be illustrated below, there are some key differences between Extract 11 and the 'non-refused' examples in the data.

REQUESTS PRECEDING MITIGATED REFUSALS

Most requests preceding mitigated refusals were delivered in ways which referenced the patient's ability or willingness to comply. Where healthcare professionals referenced ability in their request, patients who used mitigating accounts usually referenced inability to comply in their responses, as in the extract below:

Extract 12 124_203

30 HCP: ↑can I have a ↑little ↑look at >these legs first can you
31 just< march them up and do:wn

32 PAT: °how ↑could I?° (.) because I hurt me bo↑ttom when they
33 made me sit in that ↑chai:r this morni:ng, (0.4) I can't
34 get ↑that one

Here the healthcare professional asked two consecutive modal questions, one permission seeking question with himself as the agent 'Can I have a little look?', followed by a request for action, framed as a question about the patient's ability to act 'Can you just march them up and down?'. In this case the patient was able to provide an (almost) fitted response in which she clarified why this suggestion wasn't feasible (lines 32-34).

There were no low entitlement requests preceding any of the mitigated refusals. There were some highly-entitled requests, formatted as imperatives, and usually delivered during an ongoing activity when a number of previous refusals had occurred. Most of these were refused by patients on the basis of a lack of willingness, as in Extract 13 taken from a later point in the swallowing assessment in Extract 11:

Extract 13 122_220

226 HCP: ↑try a little bi:t (spoon touches lip as patient speaks)

227 PAT: I don't really want to do ↑tha::t (face turns from spoon)

Request formats preceding acceptance

Analysis of requests that lead to overt and mitigated refusals indicated that healthcare professionals were mainly formatting these requests in a manner that presented the option of refusal. The hypothesis was thus formed that since higher entitlement requests project

acceptance rather than refusal, higher entitlement requests may be more likely to lead to acceptance, all other things being equal. Although refusals did follow a small number of higher entitlement requests, these seemed to occur late on in long sequences of refusal, and verbal requests tended to be accompanied by physically embodied requests, where patients physically rejected an item or activity.

We therefore searched the data for healthcare professional requests which were formatted to display higher entitlement. As the overall aim of the project was to identify effective communication strategies that may also be trainable, identifying highly-entitled patterns of requesting was important (rather than simply identifying the negative consequences of requesting in warm but lowly-entitled ways). We found four types of request formats that displayed higher entitlement to ask, and which preceded acceptance.

ANNOUNCEMENTS OF FUTURE ACTION

Some healthcare professionals announced future action and intent through the use of the formats 'be + going to', or 'I will', such as 'I'm just gonna pop this on for you', 'We're going to sit on this chair here' and 'I'll just pop your cardigan off'. Such formats were frequently followed by a checking, permission seeking question such as 'is that okay?' or 'alright?'. This type of 'announcement as request' was recurrently used by one healthcare professional during a swallowing assessment (Extract 14):

Extract 14 111_212

266 HCP: o:kay (0.4) ↑I'm ↑↑just ↑↑gonna ↑↑give ↑↑your ↑↑mouth a
267 little ↑wipe (0.6) you have some white just around your
268 lips is tha o↑ka::y, (0.4) .hh and then that'll be us all
269 done (2.6) is that o↑ka:[::y,]
270 PAT: [↑yea]::h,
271 HCP: yeah?
272 PAT: °yeah°
273 HCP: all right

At line 266 the healthcare professional announced the action that she intended to carry out 'to' or 'for' the patient, in this case to wipe the patient's mouth. The manner of this announcement indicated a high entitlement to ask on the part of the healthcare professional. She is implying that the action is going to take place, and does not present an interactional space in which the patient could decline to engage with the activity.

However, the healthcare professional significantly softens this highly-entitled request with some important strategies. Firstly, after a 0.6 second pause in which no patient response is forthcoming (line 267), the healthcare professional explained why this action needed to be done with her account of the 'white' round the patient's lips, demonstrating sensitivity to the need to qualify such requests due to their dispreferred nature.¹⁰⁹ The healthcare professional was also orienting to epistemic knowledge that the healthcare professional had, which the patient appears to lack, that there is something around the patient's mouth that she has not removed herself.¹¹⁰ Antaki and Kent theorised that some requests in their data (residential care interactions with people with intellectual impairments) might have been completed more efficiently if a rationale had been presented first.¹⁰⁸ Even though the explanation in Extract 14 followed the request, it appeared to come as an immediate response to the pause in the encounter, suggesting the healthcare professional was sympathetic to the patient's need to have an explanation for the action.

Secondly, the healthcare professional follows her request and explanation with a permission-seeking, or checking, question at line 268 'Is that okay?', which she repeated and pursued for a response at line 269. This checking question provided space for the patient to acknowledge that they were 'not okay' with the proposed intervention, and thus softens the highly-entitled approach, re-establishing the patient's right to permit or not permit the proposed activity. However, this form of question strongly prefers an affirming response, and this request format using an 'announcement + checking question' is followed by assent in every case in our dataset.

Thirdly, the healthcare professional alluded to contingencies in her downgrading of the task with the indexical items 'just' and 'little' within her announcement (line 266), 'I'm just gonna give your mouth a little wipe'. These items work to display the task as less onerous for the patient and therefore, indicate a lowering of contingencies. Such practices occurred frequently in this dataset. This counters Antaki and Kent's notion of 'bald imperatives',

whereby the speaker takes no account of how engagement with the request may impose upon the patient.¹⁰⁸

In this extract, the context was an encounter in which the patient's and healthcare professional's goals appeared mostly aligned. However, this mode of requesting also occurred in situations where a patient had previously indicated reluctance to engage with a proposed activity. In Extract 15, the patient had declined to be shaved within the previous hour, when it had been proposed by a nurse in his bay. The videoed encounter captured a specialist mental health nurse engaging the same patient about shaving, and after their initial discussion, the subsequent conversation occurred as they walk side-by-side:

Extract 15 114_225

- 20 HCP: u::m, (0.6) okay we're just gonna ↑use this ↑bathroom
21 he:re we'll have a, (0.6) a ↑quick sha:ve (0.6) and get
22 you ready for the day is ↑that al↑right?
23 PAT: yeah
24 HCP: ↑yeah?
25 PAT: [yeah]
26 HCP: [good] ma:n. (0.6) ri:ght

Here the healthcare professional employed the technique of 'announcement' to present the activity as about to happen, with the downgrades 'just' (line 20) and 'quick' (line 21), and qualified why it might be relevant ('to get you ready for the day'), *before* the permission seeking question 'is that alright?'. The healthcare professional appeared cognisant that the task might appear onerous to the patient, but is 'selling' the perspective that this is not the case. Therefore, it would seem that the healthcare professional has optimised the chances of assent from the patient, and in the context of previous refusal, the patient appeared to agree to the activity, at this juncture, without objection.

PROPOSALS

Healthcare professionals also formatted requests as proposals or suggestions for joint activity using 'Let's' as in the extract below.

Extract 16 142_220

95 HCP: let's have another go ↑shall ↑↑we::? (0.6) you were going

96 >to have a ↑little< ↑drink for ↑↑me::,

97 PAT: ↑yeah

98 HCP: ↑here ↑we ↑go

This extract is taken four minutes into an encounter during which a healthcare professional has been encouraging a person with dementia to have a drink. 'Let's have another go' alludes to the previous repeated attempts at the activity, and presents the activity as shared, one that they will complete together. The healthcare professional has been supporting this patient with feeding as he was no longer able to eat or drink independently, using strategies known as a 'hand over hand' technique to take the cup to the patient's mouth (the healthcare professional's hand is placed over the patient's hand to guide or assist). The process of taking a drink became a combined effort for the healthcare professional and patient. The use of 'Let's' displays high entitlement to request that the patient participate in the healthcare professional's activity, and uses a persuasive strategy that we might use, in everyday talk, when trying to recruit someone to do an activity that we want to do ourselves. The option to decline the invitation is not projected, and an 'okay' type response is strongly preferred. However, the projection of the activity as a communal one gives the 'Let's' format an 'invitational flavour', which West suggests proposes a more symmetrical relationship between speakers.¹¹¹ It fits the search in this dataset for more highly-entitled ways of requesting that maintain a sense of respect for the patient.

STATEMENTS OF NEED

At times, healthcare professionals used an announcement of their own needs or the needs of the patient as a form of request. On some occasions this was difficult to disentangle from statements of need with different functions. In Extract 17, the healthcare professional followed-up her repeated statements of need (at lines 61 and 66) with a permission-seeking question, 'is that alright?', indicating that on this occasion, at least, the statement of the healthcare professional's need was issued as a request for permission to act:

Extract 17 1_133_215

61 HCP: I ↑need yea:h I ↑need to put something over tha:t (0.4)

62 to [stop it]

63 PAT: [there's] (↑it) it's plaster the:re (0.4)

64 [that's] where it is

65 HCP: [I ↑nee-]

66 HCP: I ↑need to wrap it up,

67 PAT: mm an- [(?)]

68 HCP: [and] give it a ↑↑clea::n is that ↑alri:ght?

Presenting their own needs as a justification for requesting an action that is in the patient's interest indicates an extremely high entitlement on the healthcare professional's part. West describes (mostly male) GPs frequently instructing patients what they 'needed to' (or 'ought to') do and characterised this as an 'aggravated directive' which was more likely to trigger an 'aggravated response'.¹¹¹ However, in this encounter, the healthcare professional characterised or packaged the entire activity as one which she (the healthcare professional) needed to carry out and required the patient's permission to do, and which she would not (and did not) undertake until the patients had agreed. The high entitlement was softened by the healthcare professional's respect for the patient's autonomy, to allow or not allow the activity to proceed, demonstrated by the checking question 'is that alright?'

DIRECT INSTRUCTIONS

Healthcare professionals also used direct instructions or 'bald imperatives' as classified by Antaki and Kent,¹⁰⁸ when requesting actions of patients. These were constructed with no visible subject, as in 'have a little drink' or 'take a step', and were used most frequently as part of a sequence of instructions, as demonstrated during an encounter with a physiotherapist:

Extract 18 124_211

153 HCP: ↑we:ll done

154 PAT: u:↑:::h hu:::h (0.6) °↑a:::h ha ha°

155 HCP: nice and steady rou:nd,

156 PAT: °↑a:::h ha:::h° (0.4) °°uh huh huh°° (.) °°uh huh huh°°

157 (0.4) °a:::h ha ha°

158 HCP: .hhh ↑keep hold of the fra:me els↑ie:, (0.4) turn round

159 with the frame (0.6) that's ↑it,

160 PAT: °u::h° (.) °huh huh° (0.4) °u::h huh huh°

161 HCP: use the fra:me turn all the way round

162 PAT: °a::h ha ha° (0.6) °uh huh huh °

163 HCP: that's it

164 PAT: °uh huh°

165 HCP: slowly do::wn,

166 PAT: ↑o:::h hhh

167 HCP: o::kay

168 PAT: oh go:::d.

169 HCP: ↑well done,

The healthcare professional assisted the patient to walk down the ward and return to her bedside, where she was required to turn around using her frame before seating herself back into her chair, with support and direction as needed. This extract shows a sample from a longer sequence of instructions issued in this manner during this walking activity. Such instructions or 'commands' display very high entitlement to ask, where the patient is offered no option to decline. In the literature, they are typically considered to lack sensitivity to the recipient's contingencies, and to express no doubts about the speaker's entitlement to make the request.¹⁰⁸

However, in this dataset, the healthcare professionals use these formats in specific circumstances and in specific ways, which could be considered to ‘soften’ the high entitlement instruction. Many of these instructions were issued during an ongoing, ‘agreed to’ activity, for example, walking up and down the ward for therapeutic purposes. It appears that once the patient had agreed to ‘try’ walking early on in the encounter (despite some reluctance), the healthcare professional could then issue a set of clear and simple instructions to the patient, which she promptly complied with, without any further need for the healthcare professional to negotiate each instruction with reference to choice.

Many of the imperatives in the data were issued with reference to contingencies within their construction. In Extract 19, the same healthcare professional oriented to the effort involved for a different patient, by referencing ‘trying’ in lines 211 and 218.

Extract 19 124_203

211 HCP: shall we try again? (1.2) just try and go for i:t (0.6)
212 on three (0.4) ↑o:ne (0.4) two: (0.4) three (0.6) stand
213 ↑up
214 PAT: ↑A:::H
215 HCP: [the]::re (.) [there] you go ↑w[e11] ↑done
216 PAT: [↑oh] [o:h,] [↑oh]
217 PAT: ↑oh ↑oh [↑oh]
218 HCP: [try] and straighten those ↑knee:s
219 PAT: ↑oh ↑o:::h
220 HCP: ↑straighten ↑those ↑knee:s,
221 PAT: ↑huh ↑huh ↑huh ↑huh

Indeed, in many encounters, a healthcare professional’s only use of the imperative format was in the context of encouraging a patient to ‘try’ something, following some orientation (by either speaker) to difficulty carrying out the task. For example, in the context of

persuading a patient to drink more, following a successful sip the healthcare professional asked:

Extract 20 142_220

127 HCP: how was that

128 PAT: ↑not ba:d

129 HCP: not ba:d try a bit more

And then:

136 HCP: >little bit< spilling ou::t (1.4) try ↑one ↑mo:re

137 PAT: yeah

Requesting that a patient ‘tries’ to do something (rather than baldly doing it), displays the healthcare professional’s sensitivity to how the patient may experience difficulty completing the task, and orients to the healthcare professional not needing success from the patient, but rather effort.

Healthcare professionals also used ‘just’ as part of direct commands, orienting to the requested task as one which might not be as arduous as expected, as demonstrated in these examples:

Extract 102_221

17 HCP: just ↑come [↑this ↑way]

Extract 111_212

175 HCP: ↑just try to swallow it,

Extract 122_220

288 HCP: [just] ↑one dri::nk,

Managing reluctance: healthcare professional responses to patient refusal

Building on our previous analyses, we turned our attention to sequences where an action is initially refused by a patient, but where healthcare professionals attempted to proceed with the task in the patient’s best interest. We aimed to identify what communication strategies healthcare professionals used when they encounter reluctance and refusal from patients.

Following the initial request, however it was formatted, which precipitated a refusal from the patient (mitigated or not), healthcare professionals were presented with the dilemma of how to encourage a person living with dementia to do an action (or to allow the healthcare professional to do it), whilst recognising and respecting that individual's right to choose to accept or decline.

From our analysis, we identified two distinct practices used by healthcare professionals that were more likely to precede task achievement:

- Raising the entitlement of the request (e.g. moving from 'I was wondering if...' to 'Let's...')
- Lowering contingency (e.g. specifying the duration or location of an action).

Further analysis of extended sequences in which there was an initial refusal indicated that healthcare professionals used both of these practices in an effort to get a more accepting response from the patient. Requests were reformulated in ways that less strongly projected refusal. Contingencies were lowered, sometimes in ways that specifically addressed a patient's initial refusal (e.g. specifying that standing up would only be brief), and sometimes in more generic ways that downplayed the apparent scale of the task, using minimisers such as 'just' and 'pop'. However, such progressions were gradual, and respectful of the accounts given by patients for refusal. Our analysis indicated that by varying the levels of entitlement and contingency, a negotiation process was facilitated through which it was then possible to achieve task completion. Nonetheless, there were still times when a task could not be completed, which would be in keeping with an environment that was respectful of the personhood of a person living with dementia. Our analysis identified approaches which were more likely to have a successful outcome, and not a means to achieve a task at all cost.

Closings

The second distinctive feature of these encounters focused on the closing phase, where recurring interactional difficulties in bringing encounters to an end were observed, alongside examples of more successful closings.

Existing data from CA studies of closings in face-to-face healthcare interactions have mainly come from primary care e.g.¹¹²⁻¹¹⁴ The nature of primary care interactions means that typically the patient has identified a problem and voluntarily enters into the physician's space for an appointment. Heath talks of the consultation ending as 'bringing the business to a satisfactory closure'.¹¹² It is the doctor who signals the closure of the interaction either with a summation of the problems and arrangement-making or through issuing a prescription, but it is the patient who is required to orient to this and to physically leave the doctor's space.¹¹² The patient usually responds to the closing signals, but may then present unmet needs or residual symptoms, sometimes referred to as the 'door handle' or 'by the way' phenomenon by doctors (e.g.¹¹⁵).

These existing analyses have less relevance in the current setting, because in acute hospital interactions, typically the healthcare professional enters the patient's environment (bed space), usually without invitation from the patient. The patient may be unclear that there is an issue to be addressed, and this is further intensified for people living with dementia who often lack insight into where they are and any medical problems they may have. It is also possible that the impaired linguistic ability associated with dementia may lead to missed closing cues or failure to recognise them. Additionally, in a typical acute hospital setting, the encounter ends with the healthcare professional physically leaving the space of the patient.

Our analysis of closings has been published at <http://dx.doi.org/10.1016/j.socscimed.2017.09.014>),¹¹⁶ and is summarised below.

We identified three phenomena around which there were recurring troubles in the closing phase of our encounters, categorised as *open-ended pre-closings*, *mixed messages* and *non-specific language*.

Open-ended pre-closings

In this setting open-ended questions seeking to elicit any additional patient concerns (e.g. 'Can I do anything else for you?' or 'Is there anything else you want to ask me while I'm here?') could extend closing of the interaction in a problematic way. Patients indicated confusion and sought clarification of the kind of answer that might be expected, or produced non-relevant answers. These sometimes referenced issues that could not be addressed in the healthcare context. We acknowledge a tension for healthcare professionals

in that professional training advocates checking if a patient has any other concerns to be addressed before terminating a consultation.¹¹⁷ The concept of person-centred dementia care compounds this,³¹ in that the question potentially orients to patient autonomy and gives the patient an opportunity to influence the agenda. However, in our data, two factors contributed to problems: i) the acute care patient does not initiate the interaction with a healthcare professional motivated by a problem they (the patient) wish to discuss; they are routine clinical encounters, carried out in a patient's best interests, and perhaps as a consequence, oriented to an imposition on the patient's time (leading to healthcare professionals constructing pre-closings such as 'I'm gonna leave you be'). ii) due to cognitive impairment, people living with dementia in this setting appeared to genuinely lack insight into the purpose and scope of questions such as 'Is there anything else you want to ask me' in the context of an encounter they had not initiated, when they may not understand that they were unwell, or even that they were in hospital. In this context, we recommend that it is best to avoid such open-ended closing questions probing further patient concerns.

Mixed messages

Mixed messages (e.g. telling a patient you are going to leave, but then having another attempt at an activity, or giving a verbal indication that an encounter has finished but remaining seated) appear to indicate that it can be difficult for a healthcare professional to know when to leave a person living with dementia. It is plausible that a healthcare professional may wish to try to complete a necessary, but abandoned, healthcare task following patient refusal. However, other examples suggested a protracted closure was linked to a person living with dementia's lack of orientation to the healthcare professional's attempts at closure. Conversely, some examples indicated that the healthcare professional did not quickly progress to a final closure exchange despite indicators that the patient had oriented to the upcoming closure. This led to continued talk on a patient's own topic of conversation, which was often beyond the remit of the encounter. The end result could be the healthcare professional walking away as the patient continued to talk, or on occasion explicit orientation by the patient that the continued talk was unwanted.

Non-specific language

Our analysis also exposed the problematic nature of ambiguous language and vague or indeterminate terms to signal upcoming closure. Pre-closing moves such as 'I'll see you soon' which are common in everyday discourse can confuse a person living with dementia about the timing of any future encounter. In this context, we propose that concrete arrangement making (e.g. 'I'll see you tomorrow') is preferred. Further investigation could disambiguate whether this is just a concern for people living with dementia or whether it is a wider issue for the acute hospital setting where patients see frequently changing healthcare professionals across the time span of an admission.

Successful Closing Practices

The analysis of closings identified three sources of potential interactional trouble to avoid. We therefore recommend the converse positive practices: using consistent verbal and non-verbal indicators of closing, and concrete arrangement-making. In more successful closing encounters, two further positive practices supported closing: making explicit pre-closings and using idioms.

EXPLICIT PRE-CLOSINGS

When coming towards the end of a healthcare task, healthcare professionals sometimes gave the patient direct, explicit indications that the interaction was coming to a close. These included explicit notifications ahead of a final task (e.g. 111_212: I'm just gonna give your mouth a little [↑]wipe ... and then that'll be us all done) and explicit announcements of completion of the healthcare professional's final activity (e.g. 111_212: now, that's us all done).

IDIOMS

An idiom is a 'saying'- a phrase that has a meaning beyond the actual words it contains. Idioms are often used in everyday conversations to end one topic and allow a shift to another. After completion of the healthcare professional's tasks, if the person living with dementia re-opened talk, some healthcare professionals successfully used an idioms to shift the encounter almost immediately to the terminal closure, (e.g. 135_208: we'll keep a close

eye on things). These idioms functioned, as in other everyday talk, to acknowledge the person living with dementia's contribution, briefly leading to affiliation and agreement between the interactants and facilitating mutual termination of the person living with dementia's topic.¹¹⁸ Other examples in our data included 'I'll leave you be', 'I'll leave you in peace', 'leave it to me', 'all done and dusted', 'never say never', and 'good luck'.

Discussion

The study reported here set out to identify effective communication practices which healthcare professionals used when interacting with people living with dementia in an acute hospital setting. From analysis of over six hours of data from a range of professional groups interacting with people living with dementia in this situation, a flexible phase structure for the encounters was identified. Two areas of interactional 'trouble' were identified for detailed analysis, namely how healthcare professionals achieved important healthcare tasks, particularly in the face of patient refusal, and how healthcare professionals closed encounters.

Requests in the dataset could be usefully interpreted in terms of the framework of entitlement and contingency, as developed by Curl and Drew.¹⁰² Higher entitlement ways of requesting, which avoided the projection of a 'no' response in their requesting, appeared to support cooperation with healthcare professional's requests. It is possible that by delivering a request in a manner that communicated a confident expert authority, healthcare professionals enhanced the patient's implicit knowledge of the importance of the request. As well as using higher entitlement, healthcare professionals referenced the contingencies (or difficulties) for the patient, but explicitly lowered them. In doing so the healthcare professional oriented to the challenges facing the person living with dementia and demonstrated their intent to make the activity as undemanding and straightforward as possible. Offers to help, framing the action as a joint collaborative endeavour, minimising the task size, duration or frequency, and suggesting the patient 'try' all served to lower the contingency. Healthcare professionals did not communicate an absolute right to demand the actions of patients, but clearly indicated in their referencing of contingencies that the patient's needs, abilities and wishes should be considered.

The prevalence of refusal and reluctance in the data prompted us to consider the ensuing predicament which, it appears, healthcare professionals regularly face when caring for people living with dementia in hospital. The healthcare professional who aims to provide person-centred dementia care will want to value the individual's personhood and autonomy, respecting the person's opinions and wishes around their healthcare choices.^{31,107} However, the healthcare professional knows that the individual may lack the necessary information about or understanding of the action, or its consequences on their health or welfare, to make a fully-informed decision. In contrast, the healthcare professional is aware how failure to complete the task might affect the person's wellbeing. Typically, the healthcare professional cannot complete such tasks without the active or passive cooperation of the patient. Therefore the healthcare professional needs to balance how they encourage the patient to comply with a course of action, whilst acknowledging their concerns.

'Person-centred' care is often contrasted with 'task-centred' care,¹⁰⁷ but it is our contention that achieving important healthcare tasks and person-centred dementia care are not mutually exclusive. The project's PPI representatives, having cared for people with dementia, attested to facing similar dilemmas, for example when encouraging their relatives to drink or take medications. When an activity is deemed to be in the person living with dementia's best interest, the supporting person uses a variety of strategies to motivate and encourage the person living with dementia to comply with the request, with a minimum of distress. Our analysis has sought to explicitly identify what these strategies might be, and their relative effectiveness.

No single way of requesting will always lead to an acceptance or agreement, the patient's agency being primary. However, in identifying what requesting practices 'do' in interactions, we aimed to specify this knowledge so as to better inform healthcare professionals of communication practices that could enhance their interactions with people living with dementia.

Analysis of closings revealed a common theme of interactional trouble, with recurrent use of open-ended pre-closings, mixed messages and using non-specific and indeterminate future arrangements. These practices are not necessarily inherently interactionally problematic. In settings where patients do not have cognitive impairment, they may not

precipitate trouble, and therefore our recommendations should be taken in context. Our findings emphasise the importance of context in the analysis of healthcare delivery, and the limitations of blanket recommendations. Our findings also identify a need to examine best practice guidance as it is actually produced in interaction, using methods which can unpack the interactional detail involved.

Our analysis also highlights the recurring tension in this setting between seeking to treat people living with dementia as full agents who can collaborate in joint communicative projects, and adapting communicative practices to take impairment into account. People living with dementia demonstrate a wide range of communicative abilities and these abilities can vary with time and context, which introduces another level of complexity to any interaction with them. It is feasible that practice could be improved, for example, by helping healthcare professionals develop an awareness of the possible implications of using different closing practices with different patient groups, and by explicitly acknowledging the difficulties that an orientation to more generic person-centred practices can create when communicating with people living with dementia.

CHAPTER 4: INTERVENTION DEVELOPMENT

Introduction

Having uncovered new evidence about *what* communication practices might usefully be changed, we next sought to establish *how* these practices might be changed through a training intervention. The aim was to develop, through a transparent and robust process, a complex intervention which was ready for feasibility testing.¹¹⁹

‘Intervention development is seldom a fixed prospective linear process’.¹¹⁹ In common with other intervention development studies (e.g.¹²⁰), the process described in this chapter was complex, time-consuming and resource-intensive. A number of intervention development approaches were used to support development, but in practice the process was iterative, messy and unique.

This chapter describes what (*actually*) happened, with accounts given for what was done, by whom and why. The aim is not to publish a description of the intervention which would make the intervention completely replicable, but to make the decision-making processes transparent, and justify the educational approaches which were taken. The ‘findings’ section presents the output, using the structure of the TIDieR checklist for intervention description.¹²¹

The objectives for intervention development were to produce a well-described intervention with learning outcomes based on empirical research. It had to be underpinned by relevant theory, but feasible within the practical constraints of the project. We set out to develop the intervention using an explicit process of expert consensus, and to evaluate it as robustly as was practicable.

Methods

Participants (Who made the decisions?)

We convened an intervention development team which met for four half-days over four months. The intervention development team was set up to: specify explicit learning objectives, consider evidence on what and how to teach, discuss how to apply this in practice, reach consensus on training intervention components.

All members of the study Project Management Group (the co-applicants and collaborators) were invited to join the intervention development team, except for one member who preferred to remain impartial, as she would be carrying out interviews as part of the evaluation of the training. The intervention development team contained healthcare professionals, clinical academics, academics, educationalists and carers of people with dementia, with expertise in:

- NHS medical, nursing, AHP and interdisciplinary clinical education
- Dementia and acute hospital care
- Communication skills training
- Conversation analysis and the use of 'real' video data in training
- Simulation in healthcare education
- Electronic (computer-aided)-learning.

Two local experts in communication skills training in healthcare were individually interviewed by the research speech and language therapist. One was a consultant in palliative medicine who had experience of running a simulation-based, inter-disciplinary, communication skills training course in end-of-life care (Dr Patrick Costello). The other was a lecturer in nursing, who had evaluated a video teaching resource based on CA findings and recordings (also in end-of-life care; Dr Becky Whittaker).

The Study Steering Committee (SSC), was consulted at two points during intervention development, to provide external, independent perspectives, helping to mitigate against risk of 'group think', a potential problem in processes which seek consensus.¹¹⁹

Processes (How the decisions got made)

The process of intervention design intended to synthesise existing evidence, new evidence, educational, clinical and experiential expertise to produce a training intervention, illustrated as a four-stage process (figure 2):

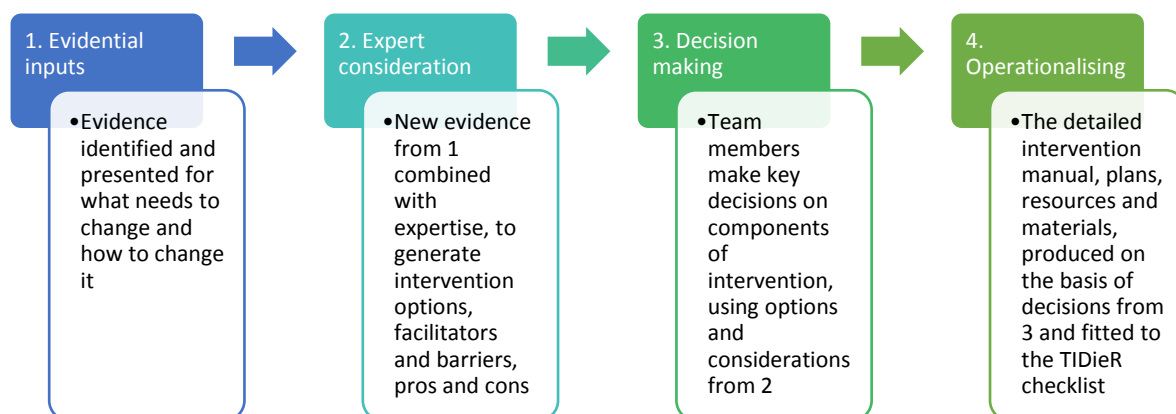


Figure 2: Process of intervention design

Inputs were findings from the systematic review of communication skills training in dementia care, the CA study, and the interviews with local experts.

The systematic review identified a variety of candidate components, including content (what needed to change) and theories, teaching methods and modes of delivery (possible mechanisms for change). However, the quality of the reviewed studies was (at best) moderate and few of these studies were in acute care. Findings could not necessarily be taken at ‘face value’ and used in a new intervention, but needed further consideration and interpretation.¹²² This was done by producing tables of components (duration; theoretical underpinnings; teaching methods and modalities) for critical appraisal and discussion.

The CA findings identified new empirical knowledge about what effective (and less effective) communication looked like. Findings were summarised by the CA analytic team into a list of ‘potential trainables’ (Chapter 3), but these were not sufficiently refined for training delivery. For example, they had not been considered in detail for relevance, acceptability and intelligibility by an audience unfamiliar with CA. Findings on ‘requests and refusals’ and ‘closings’ were discussed by the intervention development team. Others had previously described the application of CA findings in a group training context.¹²³

The interviews with local experts in communication skills training complemented the knowledge of the team. Interviewees shared experience and opinions on questions about intervention design, including: benefits of simulation, CA-video methods, practical aspects

of simulation and video methods (setting up; duration; feeding back; making 'safe'; use of video and playback within simulation), training group size and composition, trainer and facilitator expertise required, recruiting to and administering training courses, methods of evaluation and promoting implementation of learning.

The intervention development team was the mechanism through which consensus was sought and intervention decisions made. Most decisions required further deliberation or work following an intervention development team meeting. A core team undertook this, comprising three clinical academics (Rebecca O'Brien, Sarah Goldberg, Rowan Harwood), who had considerable experience across medicine, nursing and allied health professional roles, working clinically with people living with dementia in acute settings, and in training and educating across professional groups.

The work of 'operationalising' training included preparing materials and resources. Particular attention was paid to preparing simulation exercises. This was done through six meetings between the lead simulator (Megan Murray) and research speech and language therapist (Rebecca O'Brien), with variable involvement of the rest of the core team. The lead simulator produced provisional scenarios for the simulated patients which were developed and amended through iteration in collaboration with the core team to ensure their clinical authenticity.

Findings (what was decided and why)

The intervention development team agreed specific learning objectives for the communication skills training:

1. To enable the healthcare professional to reflect upon and analyse his or her own communication and that of others, when interacting with people living with dementia in the acute healthcare setting
2. To enable the healthcare professional to synthesize new and pre-existing knowledge about communication into his or her own clinical and personal context, in order to create new practices
3. To be able to identify and deploy flexibly a variety of effective communication practices, when interacting with people with dementia in the acute healthcare setting.

Following the pilot course we derived specific learning outcomes from these objectives:

1. Analyse specific aspects of my communication
2. Combine what I already know with new knowledge from the course
3. Apply this knowledge creatively to me in my clinical interactions
4. Be able to flexibly use a variety of effective communication practices.

The TIDieR checklist encourages clear specification of the core components, to support implementation and replication. As well as reporting what was decided in the development of the intervention, the checklist makes explicit how and why each decision was made.

Name of Intervention

The title used during the delivery of training was 'VOICE for Dementia'. A suitable name was required to support recruitment to the pilot and feasibility studies, and for future implementation of a potentially 'marketable' training course. A clear intervention name assists in identifying connected studies, as well as giving an indication of the type of intervention described.¹²¹

Why: the rationale, theory or goal essential to the intervention

The rationale, theory or goals help to identify the 'active ingredients' which mediate anticipated changes, clarifying which components are essential.¹²¹

Educational theories, relevant to communication skills trainings for healthcare professionals, were considered which could underpin the intervention.

The systematic review identified a variety of educational and other theories. Two papers gave extensive consideration to educational theories, models and frameworks,^{78, 80} including the 'learner-centred classroom', Knowles' principles of andragogy,¹²⁴ and reflective practice.¹²⁵ Beer et al supported their description of specific learning activities with references to a variety of educational theorists,⁷⁸ including transformative learning theory¹²⁶ and the motivational framework for culturally-responsive teaching.¹²⁷

An experiential learning approach was chosen, based on Kolb's experiential learning cycle and the need to support different learning styles.¹²⁸ The theories cited in the systematic

review (such as andragogy, reflective learning and transformative learning theory) were part of, or derived from, the experiential learning tradition.¹²⁹

What: Procedures, activities and processes used in the intervention

The 'activities' or 'processes' comprise the training approaches used.

CONTENT (table 8)

The content of the training was designed around the new empirical findings from the CA. The issues for discussion were: how these potentially complex linguistic findings could be distilled and 'translated' for a varied healthcare professional audience; and how much other content there should be about communication and dementia, based on other research or approaches.

The CA findings were validated by the clinicians as being highly relevant. PPI members concurred, identifying with the challenges of trying to get important tasks done, when a person living with dementia was reluctant, and partings, in various contexts. They also agreed that these situations were important to their relatives when unwell in hospital. Clinicians and PPI intervention development team members felt the findings described communication practices they had not been aware of before, and therefore regarded them as highly relevant content for the communication skills training.

The intervention development team discussed the number of communication practices that could feasibly be trained in one course. Previous CA-based training has focused on a few practices only^{65,130}. We wanted to address two quite independent areas of trouble in the interaction, which involved presenting seven (closings) and ten (requesting) communication practices to try or avoid. 'Requesting' in particular necessitated introducing some complex concepts.

The phase-structure of encounters was felt to be helpful for healthcare professionals, and there was a desire to present training in a logical 'openings' to 'closings' structure. Video-material on openings was used to orientate trainees to encounters, introduce the experience of learning, and encourage self-reflection on communication practices. Simplification was achieved by grouping requesting practices together under the three

headings 'raising entitlement'; 'lowering contingencies'; and 'making the task explicit', in order to help trainees better identify and remember specific practices.

Person-centred care in dementia was presented as an underpinning philosophy,¹⁰⁷ but the intervention did not specifically teach on person-centred care. Three openly available e-learning resources related to dementia, person-centred care and communication, previously developed by members of the study team were recommended as pre-training preparation for trainees,^{32,131,132} who were encouraged to use these resources if they felt it necessary to revise more basic concepts, allowing the intervention to focus on new content. The person-centred care philosophy was emphasised by the facilitators during group discussions and the simulation and video workshops.

Table 8: Summary of intervention content development

Sources of evidence	Summary of key considerations for intervention design (content)
CA findings	<ul style="list-style-type: none"> • New CA findings were: the phased structure of these interactions; how to request in the face of reluctance; and how to close an interaction to everyone’s satisfaction. • The new CA findings are essential to the training content. • The CA findings need to be ‘translated’ into a few trainable practices which are comprehensible to a healthcare professional audience.
Practical considerations	<ul style="list-style-type: none"> • The project funding specified that training would be based on the new empirical findings, although not restricted to this. • Given the number of ‘trainable practices’ from the CA, we prioritised content that was likely to have most practical impact.
Systematic review	<ul style="list-style-type: none"> • The review showed no consistently agreed content for communication skills training in dementia care, and mixed empirical justifications. • The Australian ‘MESSAGE’ intervention; specified empirical evidence for each communication strategy.^{133,134} Small et al. study identified ten strategies from carer reports.³⁴ • One study had content based on person-centred care in dementia.¹³⁵
Expert opinions	<ul style="list-style-type: none"> • Training content should include clear learning outcomes. • Teaching on each phase of the interaction, from ‘openings’ through to ‘closings’ would give a good structure. • Exploring the patient’s reasons for reluctance could increase empathy - but is speculative and contrary to empirical CA. • Ethical considerations in dementia care (best interests decision-making, coercion vs. persuasion) need inclusion. • All levels of communication difficulty from dementia should be included - but the analysis focused on those with some remaining verbal ability. • Person-centred dementia care should underpin the training.

TEACHING METHODS: SIMULATION

Simulated patients are professional actors who represent patients for the training or assessment of healthcare staff. This is contrasted with ‘role play’ where trainees enact roles other than their own. The possibility of professional simulation being used in the new intervention was proposed in the funding application, which included collaborators with expertise in this. The systematic review highlighted simulation and role play as key teaching methods in nine of the 27 studies, including one in which simulation was the sole teaching method, with significant gains in confidence of medical trainees.⁸⁰ We decided to use simulation as an experiential learning method, which would give trainees the opportunity to practice skills in ‘real time’ interactions.

The use of simulation in communication skills training has been challenged by a number of authors, however, who have identified ways in which simulated encounters may be 'inauthentic' because of systematic differences from naturally-occurring interactions.¹³⁶⁻¹³⁸ Despite potential limitations, simulation was viewed as the best method available for the 'on-line' practice of new communication skills, particularly for patients with communication and cognitive impairments, who could not themselves be easily trained to give feedback. Simulation is reported to be the part of training that trainees remember and value most.

Good quality simulation has the potential to involve the whole of Kolb's experiential learning cycle (figure 3). The simulation represents a *concrete experience*, created as an opportunity from which the trainee can construct their own learning. Opportunities need to be given for reflection by the trainee on their own performance and also to observe and reflect on fellow trainees (*reflective observation*), which can be particularly valuable for trainees who are reticent or anxious about simulation. Trainees can be given opportunity to think about and try to make sense of their experience (*abstract conceptualisation*), through interpreting their previous knowledge and experience of communication, and the input from the study findings, in the light of their new experience. Finally, they can be offered an opportunity to *actively experiment*, through re-running the simulation, or through discussion with fellow trainees and facilitators, and trying the practices out in their real clinical contexts.

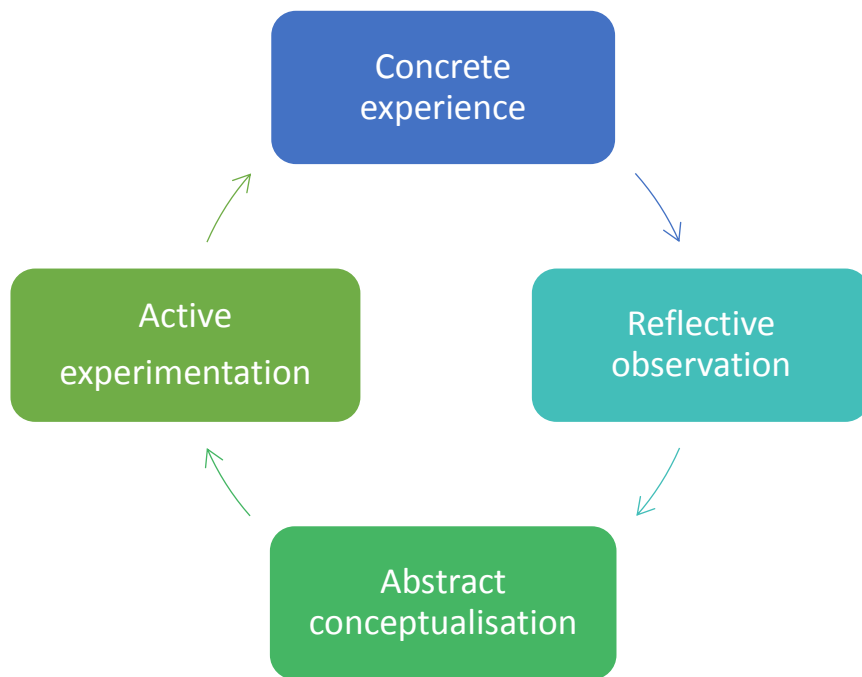


Figure 3: Kolb's Experiential Learning Cycle

To address concerns about authenticity, we undertook to develop the simulation in innovative ways, using the CA findings and data.¹³⁹ The process involved considerable consultation and development work. The research speech and language therapist selected suitable potential participants with dementia from the original video data, and these videos and transcripts were viewed by the researcher and lead simulator. 'Scenarios' were developed, the character was given a (fictional) name, clinical and social history, with descriptions of their retained abilities, appearance, demeanour and manner of speech. Unusually for simulations, we developed additional information for the simulator about the person's typical interactional patterns, based on close scrutiny of the videos and transcripts, and in the light of the CA findings and training content. Some examples are given below for the simulation role 'Annie' (box 3).

Box 3. Information on simulation character 'Annie'

You sometimes produce a lot of speech - which doesn't make sense:

'they've normally got...packages in cardboard on end...so they don't break the points off... it was just bare like that...and it was about that day, Saturday...down there...and bent over...straightened it out...display...'

In response to healthcare professional requests:

You do not agree at first: 'Hmmm'

You question request: 'What for?'

You agree eventually if request is clear and direct: 'okay'

Once the final scenarios had been agreed as acceptable by the intervention development team, they were sent to the simulators for comment and familiarisation (chapter 5).

Simulation has to be properly facilitated, with appropriate support for trainees. Simulation can provoke anxiety which can inhibit learning. This was operationalised through:

- Building relationships from beginning of training using participatory exercises e.g. in pairs, valuing all members and all contributions
- Building group identity for simulation work, keeping groups constant with same facilitator
- Allowing trainees control over aspects of their simulation, such as choosing what task to carry out
- Encouraging trainees to pause their simulations ('time out'), to give control, and to allow for advice/ support, mid-simulation, from the group
- Organising feedback using Pendleton's model,¹⁴⁰ in which the trainee gives positive feedback on self, then facilitators and observers reinforce with further positives, before trainee, facilitator, then observers make suggestions for change
- Trainees encouraged to re-play simulations, to experience their ability to control and change their communication behaviours.

TEACHING METHODS: REAL VIDEO DATA

Use of video in communication skills training is not a teaching 'method' in itself, but is commonly used, reported in 13 of 27 studies in the systematic review. Some studies described how videos were used in teaching, referring to the demonstration of 'good' and 'bad' examples, usually staged with actors. Two studies reported use of video of real-life encounters, showing 'good practice' either from expert trainers,⁷⁸ or from the everyday encounters of nursing aides.⁷⁹

As an alternative, conversation analysts have reported ways in which they have used analyses of real encounters as an educational resource (e.g.¹²³) or in evaluations of interventions designed to change practices.^{65, 130} These methods have been developed into the training approach known as the 'Conversation Analytic Role-play Method' or 'CARM'.¹⁴¹

This approach involves pausing recordings at a key point in the interaction (for example, after the patient's refusal of a request), and asking trainees to consider, usually in small groups, what they might say or do next. After sharing and discussing suggestions, the recording is replayed, to show what actually happened. Trainees then discuss the real response, and consider how it led to the desired or undesired outcome. The trainee experiences the unfolding of an authentic interaction, without knowing the outcome, and is given opportunity to 'role play' their responses. By using examples which play out in the direction of conversational travel which is not desired, and contrasting this with more positive examples, the trainee can experience and analyse for themselves what interactional approaches work best.

The CARM training approach can assist the trainee in experiencing the 'disorienting dilemma', in which their existing knowledge is challenged by something new.¹⁴² Revealing the negative impacts of interactional practices motivates change, for example, in communication partners of people with aphasia.^{143,144} The importance of communication partners identifying positive alternative communication practices with which to replace the negative has been highlighted.¹⁴³ This process should follow naturally from the CARM approach, in which participants observe and analyse for themselves the interactional consequences of a variety of practices, selected by the trainer to meet specific learning objectives.

Awareness of authentic practices which work better than others may not, without practice, be enough to change behaviour in real conversation.¹⁴⁵ We therefore decided to combine CARM-inspired techniques with simulation, to give trainees the awareness of practices which might benefit from change, followed by skills practice and feedback. Practising communication skills with immediate feedback, may work by increasing the facility with which the techniques are used, thus strengthening the trainee's *capability* to change, whilst awareness building may be necessary for building motivation to change.^{143,144}

The research speech and language therapist completed 'CARM' training, and used this approach to support the planning of the training schedule and resources. Short video extracts were selected to explain and illustrate each key learning point. Shorter clips were animated with the 'trainable' words or phrases shown after watching the extract. This allowed the facilitator to involve the trainees in identifying the useful practices, before confirming their findings with the animations (figure 4).

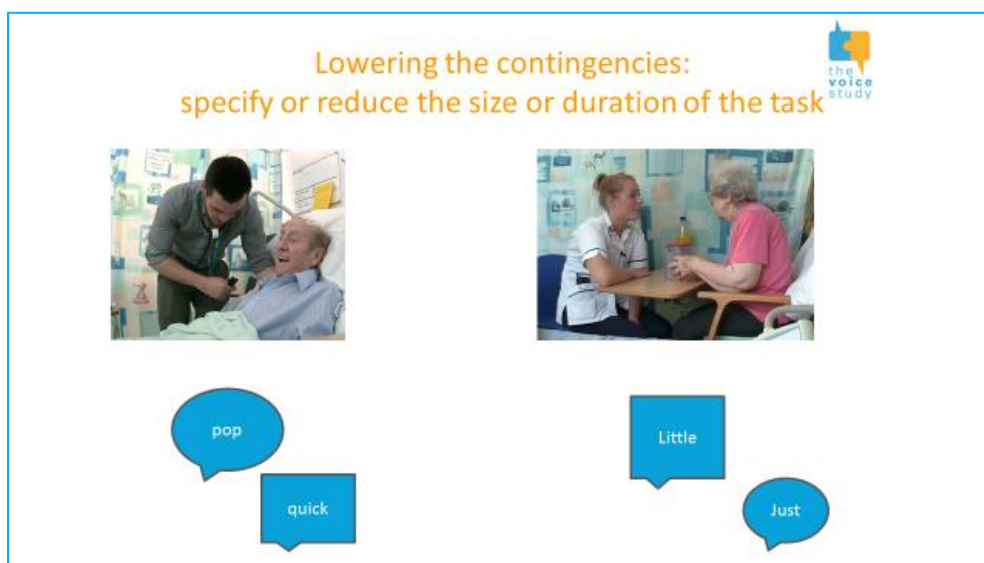


Figure 4: Sample slide showing animation of key words

Three longer sequences (between two and four minutes) were used for 'CARM'-style workshops. A sample slide is shown, stopped at the point for discussion (figure 5).

Video workshop on Extended Closings



PAT: and ↑ju:st put the bed down a little will you
HCP: ↑ye:p
PAT: that's °fi:ne °(,) yeah yeah
HCP: okay (starts to stand)
PAT: little bit
HCP: bit mo:re?
PAT: that's it yeah
HCP: okay(.) ↑alright=
(standing)
=then see you soon
PAT: so ↑ho:w am I generally?

Figure 5: Sample slide from CARM-type video workshop showing CA transcript

TEACHING METHODS: REFLECTIVE LEARNING

Reflection forms part of experiential learning, described in Kolb's cycle. Simply experiencing something is not enough to learn from it. Reflection and reflective practice, developed from the work of Dewey and Schon,^{146, 147} have been identified as core professional skills for healthcare professionals.¹⁴⁸ Reflection is defined as:

'a metacognitive process that creates a greater understanding of both the self and the situation so that future actions can be informed by this understanding' (p685).¹⁴⁹

The process involves 'noticing' an event of interest, use of a critical reflective stance and the application of insights to further situations. A systematic review of reflective learning in the education of healthcare professionals found that reflection enabled deeper learning, and improved integration of new learning with existing knowledge and skills.¹⁴⁸

We required healthcare professionals to become more aware of their communication practices, critically evaluate where their practices and those of colleagues work well or less well, and then integrate new knowledge, in order to develop enhanced communication skills.

Teaching activities that provided opportunities for reflective learning were therefore used. This included the training being split over two separate days, with one month between. A PPI contributor suggested a reflective diary might promote implementation of communication strategies in everyday practice. This was refined into a guided reflection; trainees were asked to reflect on an interaction which had gone well and one which had gone less well. This was thought to be a more realistic request to make of busy healthcare professionals than an open-ended 'diary' of events. Two reflective models were suggested, a classic descriptive reflection model (what happened, how it felt, what went well and not so well, what else you could have done, and how you might handle it differently next time)¹⁵⁰ and a model, based on content from the training ('Did you request any actions of the person living with dementia? Did you try any of the VOICE techniques for requesting? How did they go?'). Trainees were informed they would be asked to share their reflections when they attended the second day of the course.

The sharing of the reflective diaries took place in groups of up to five trainees, with a facilitator to support, encourage and challenge. Facilitators drew out from trainees' reflections any learning needs for that individual for the second day of the course, and also any questions or challenges for the whole group.

TEACHING METHODS: SMALL GROUP DISCUSSION

Simulation, annotated video clips and reflection all incorporate elements of small group discussion. All the studies in the systematic review which delivered group-based training mentioned using group 'discussion', 'activities' or 'exercises'. Active participation is required for deep learning to take place,¹⁵¹ which may include discussion amongst peers. The size of the group may support or inhibit involvement; an optimal 'small group' is often regarded as between six and eight members.¹⁵²

Whilst early models of experiential learning and adult learning theory emphasised the individual learner, social learning theorists highlight the importance of the social context in which learning occurs.^{153,154} 'Supported participation', 'constructive discourse' are 'collaborative learning opportunities' which help learning.^{142,155,156}

The VOICE training incorporated much small-group discussion. Interactive group tasks were designed to encourage active participation, in a non-threatening way. Small group facilitators required skills in managing group dynamics and facilitating trainees to participate fully through a combination, of listening, questioning and responding.¹⁵²

Tasks were also designed as ‘buzz groups’ for pairs of trainees to discuss topics together, with the facilitator’s role being to answer queries and lead feedback in plenary. Discussion activities in pairs involve all trainees and contribution from the whole group, whereas open questions tend to get responses from only a few. Buzz groups use time efficiently, allowing trainees to enter into more detailed talking and thinking together. The energy created by such activities is palpably different to the dynamic which follows the asking of a question to the whole group, but does require skilful management of timing and contributions.

Membership of the small groups for the first simulation was decided by the facilitators, aiming for a variety of perspectives based on factors such as professional group, level of seniority or experience and apparent confidence or anxiety.

TEACHING METHODS: E-LEARNING

Internet-based educational approaches in healthcare have become increasingly popular.¹⁵⁷ A review of internet-based education in healthcare showed this was as effective as conventional teaching.¹⁵⁸

Project funding included support for the development of an e-learning resource known as a ‘Reusable Learning Object’ (RLO). An RLO has been defined as:

‘an interactive, multimedia web-based resource based on a single learning objective which can be used in multiple contexts’.¹⁵⁹

‘Multimedia’ implies use of audio, text, images and video in combination, and ‘interactivity’ means the involvement of the learner in exercises related to on-screen content, or interaction with other users or a trainer. Both interactivity and the use of multimedia content improve the effectiveness of online training.¹⁶⁰ Learners accept e-learning technologies best if they are easy to use technically, align with their values and norms and

are perceived an advantage over alternatives. The desirability of formative feedback and dialogue with others has been emphasized.¹⁶¹

Two studies in the systematic review featured online training only, both describing an interactive, multimedia resource.^{87,162} These two interventions covered broad dementia-related learning objectives (not just communication), requiring two to four hours' time investment. They were well-received by care home staff trainees, and had positive impacts on measures of knowledge and confidence. Both studies included use of videos, which trainees evaluated highly, as being helpful in learning new ways to care,¹⁶² and as being valuable and 'believable'.⁸⁷ Trainees liked the flexibility of delivery, but in both studies, internet access and Information Technology caused problems. When asked how to improve the training, some participants suggested that the sharing of ideas in a group would be more beneficial.¹⁶²

The RLO focused on a single learning objective, and aimed to provide around 15 minutes of learning. We intended to use a blended learning approach in which the RLO reinforced learning from the face-to-face training,¹⁶³ consistent with a behaviourist model of learning, in which repetition and positive reinforcement are key to the retention of new knowledge and behaviours.¹⁶⁴ The opportunity for trainees to review and revise the recommended communication practices was offered through the use of 'real' video encounters, which had been consented for potential online use.

The focus of the first RLO was on 'requesting in the face of reluctance', as this was felt to present the greatest conceptual challenge (figures 6 and 7). Relevant information was presented in text, audio and video ('talking head') formats, to maximise accessibility. After each slide giving information, an interactive activity was used as reinforcement, using the video and transcripts. Trainees were given immediate feedback on correct or incorrect answers and the chance to self-correct. In this way, trainees were given a summary and reminder of previous teaching, allowing for multiple repeats of information, delivered in their preferred modality. 'Testing' and feedback from the activities gave trainees immediate, private, feedback on whether they understood key learning points.



Figure 6: Screenshot from Re-useable Learning Object (RLO)

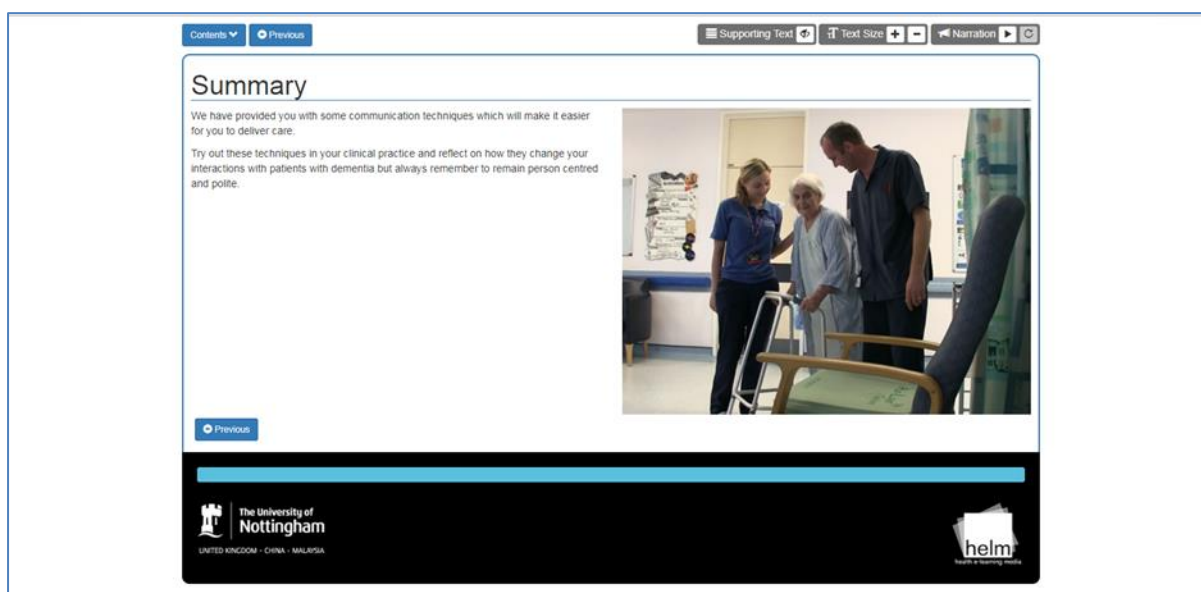


Figure 7: Screenshot from Re-useable Learning Object (RLO)

The process of developing the RLO was supported by the Health E-Learning and Media Team (HELM) at the University of Nottingham. A 'storyboard' was written, assembling text, and video clips, exercises and illustrations. The text was audio and video recorded, allowing for background commentary and 'talking head' sequences.

TEACHING METHODS SUMMARY

Evidence supporting use of each teaching method modality is given in table 9.

Table 9: Evidence supporting each teaching modality

Teaching method	Sources of evidence	Key considerations for intervention design (teaching methods)
Simulation	Systematic review	<ul style="list-style-type: none"> 9/27 studies in the systematic review included either simulation, role play or 'live skills' practice One study reported confidence gains from a simulation intervention for medical students⁸⁰
	Practical considerations	<ul style="list-style-type: none"> Funding for professional simulation included within project grant
	Individual interview (Patrick Costello)	<ul style="list-style-type: none"> Simulation is the part of communication skills training that healthcare professionals report remembering positively in the-long term Good simulation requires skilled facilitators, to create a safe learning environment and with expert knowledge and experience of the relevant clinical field, to draw out appropriate learning Good simulation is personalised by the learner, to allow them some control and increased safety
	Expert panels	<ul style="list-style-type: none"> Simulation offers the opportunity for 'real-time' practice of communication skills, trying out new skills and decision- making Simulation allows for reflection, feedback and re-trying in ways that clinical practice experiences cannot Simulation has been criticised because of demonstrable interactional differences between 'real' and 'simulated' encounters, so work is required to increase authenticity 'Role-play' between trainees or with volunteers would allow more trainees per course, but lack of authenticity in 'performing' dementia, makes this undesirable
Real video data	Systematic review	<ul style="list-style-type: none"> Most published studies (13/27) used video data, the second most consistently used technique The videos included both good & bad practice examples. Videos were mostly of actors but occasionally were from real encounters e.g. trainers demonstrating their expert skills None used video based on CA nor the 'stop-start' technique used in CARM¹³⁶
	CA literature	<ul style="list-style-type: none"> Using real video data avoids potential inauthenticity of simulation by showing what happened in a real encounter Real video can be stopped and started to allow trainees to reflect on what was said and what they might say next The 'best' examples to use of the trainable practices were taken from video from which those practices were identified
	Individual interviews (Becky Whittaker)	<ul style="list-style-type: none"> Significant technical challenges in video recording and playing back simulations within a training day; takes a lot longer per trainee Video playback of real encounters used in CA can be used in training Real video data allows trainees to assess the <u>process</u> of their interactions (how did we get there?) as well as the <u>outcome</u> (did we get there?) Technical aspects must be smooth - good play back, stop-start at will, subtitling to help with audibility

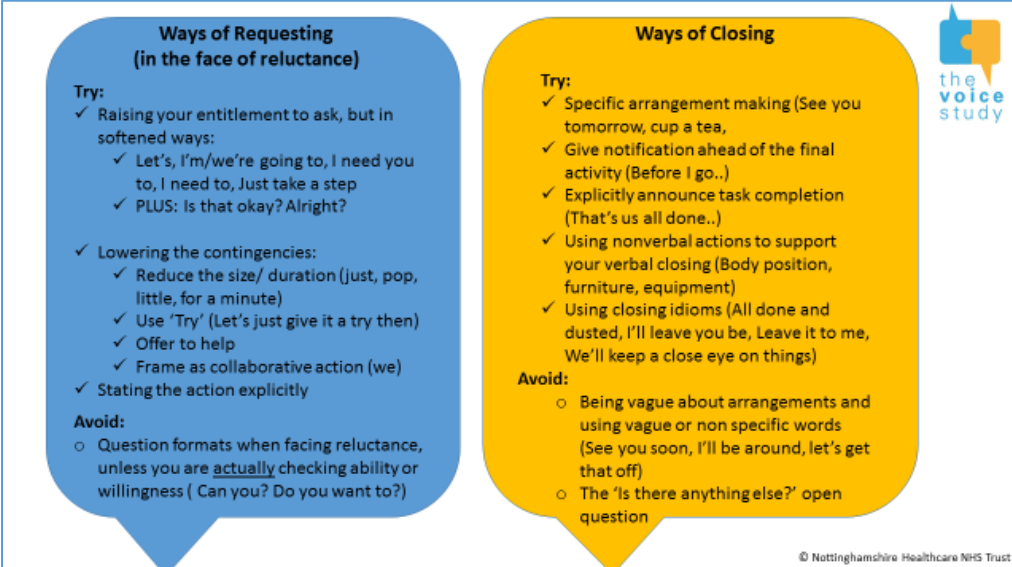
Teaching method	Sources of evidence	Key considerations for intervention design (teaching methods)
	Expert panels	<ul style="list-style-type: none"> Stopping unwanted communication behaviours is easier than starting new ones; video examples of interactional 'trouble' needed as well as 'positive' examples Video methods balance disadvantages of simulation Reflections on 'real' videos needs to be facilitated to maintain respect for interactants and avoid digressions into negative judgments or unhelpful speculation on motivations
Small group discussion	Systematic review	<ul style="list-style-type: none"> All papers which described a group training intervention (15/27) reported using group 'discussion', 'activities' or 'exercises'.
	Expert panels	<ul style="list-style-type: none"> Simulation and CA-based video techniques involve group discussions as part of their reflective, learner-centred, experiential approach Active participation, facilitated by small groups, needed for deeper learning to occur
E-learning	Systematic review	<ul style="list-style-type: none"> Two exclusively on-line training studies Both used video examples (probably staged) Care home staff needed support with technology Technology needs to work well and be easily accessible. Flexibility of delivery was appreciated by care home staff
	Practical considerations	<ul style="list-style-type: none"> Study had funding for development of e-learning resource and an academic specialist included as collaborator Only about half of the videos had consent to share online.
	Expert panels	<ul style="list-style-type: none"> A variety of online tasks helps to maintain interest Clear learning outcomes needed Better to keep short and specific (separate 'requests' from 'closings') Need to avoid using same clips for online resource as for face-to-face training E-learning resource primarily to reinforce learning for trainees
Reflective practice	Systematic review	<ul style="list-style-type: none"> 8/27 papers described using self-reflection
	Practical considerations	<ul style="list-style-type: none"> Training needed to be split over two days to give time for practice in the clinical setting
	Expert panel/s	<ul style="list-style-type: none"> Need to link classroom learning with 'real' clinical experiences to support implementation Trainees need to individualise their learning to their differing contexts A 'reflective diary' supports linking learning to practice Ensuring participation in written reflections can be difficult Reflecting on one positive and one negative experience would be a realistic expectation

What: Materials

Various resources were required to prepare training, but these were the items most often omitted from descriptions in an analysis of 133 interventions used in randomised trials.¹⁶⁵

The learning content, including the interactive exercises and presentation of the video materials, was prepared in Microsoft PowerPoint (figures 5 and 6). PowerPoint allows video/audio recordings to be animated, with transcript appearing as the words are spoken, thus enabling a 'CARM'-type training approach in video workshops.¹³⁶ On-line video resources were embedded to illustrate points.

Paper-based resources were also used. A 'Summary of Recommendations' card, listing the key training content on a two-sided A4 sheet, as a reference for trainees both in the training and afterwards was produced following experience in the pilot course. One side showed the practices to 'try' and to 'avoid' in relation to requesting and closings, and the other side showed a diagram of the structure of the encounter, and a summary of person-centred care (figures 7 and 8).^{31,107}



The image shows a two-sided A4 card titled 'Summary of Recommendation on Requesting and Closing'. The card is divided into two main sections: 'Ways of Requesting (in the face of reluctance)' on the left (blue background) and 'Ways of Closing' on the right (yellow background). Both sections list 'Try' and 'Avoid' practices. The 'the voice study' logo is in the top right corner, and the copyright notice '© Nottinghamshire Healthcare NHS Trust' is at the bottom right.

Ways of Requesting (in the face of reluctance)

Try:

- ✓ Raising your entitlement to ask, but in softened ways:
 - ✓ Let's, I'm/we're going to, I need you to, I need to, Just take a step
 - ✓ PLUS: Is that okay? Alright?
- ✓ Lowering the contingencies:
 - ✓ Reduce the size/ duration (just, pop, little, for a minute)
 - ✓ Use 'Try' (Let's just give it a try then)
 - ✓ Offer to help
 - ✓ Frame as collaborative action (we)
 - ✓ Stating the action explicitly

Avoid:

- Question formats when facing reluctance, unless you are actually checking ability or willingness (Can you? Do you want to?)

Ways of Closing

Try:

- ✓ Specific arrangement making (See you tomorrow, cup a tea,
- ✓ Give notification ahead of the final activity (Before I go..)
- ✓ Explicitly announce task completion (That's us all done..)
- ✓ Using nonverbal actions to support your verbal closing (Body position, furniture, equipment)
- ✓ Using closing idioms (All done and dusted, I'll leave you be, Leave it to me, We'll keep a close eye on things)

Avoid:

- Being vague about arrangements and using vague or non specific words (See you soon, I'll be around, let's get that off)
- The 'Is there anything else?' open question

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Figure 8: Summary of recommendation on Requesting and Closing

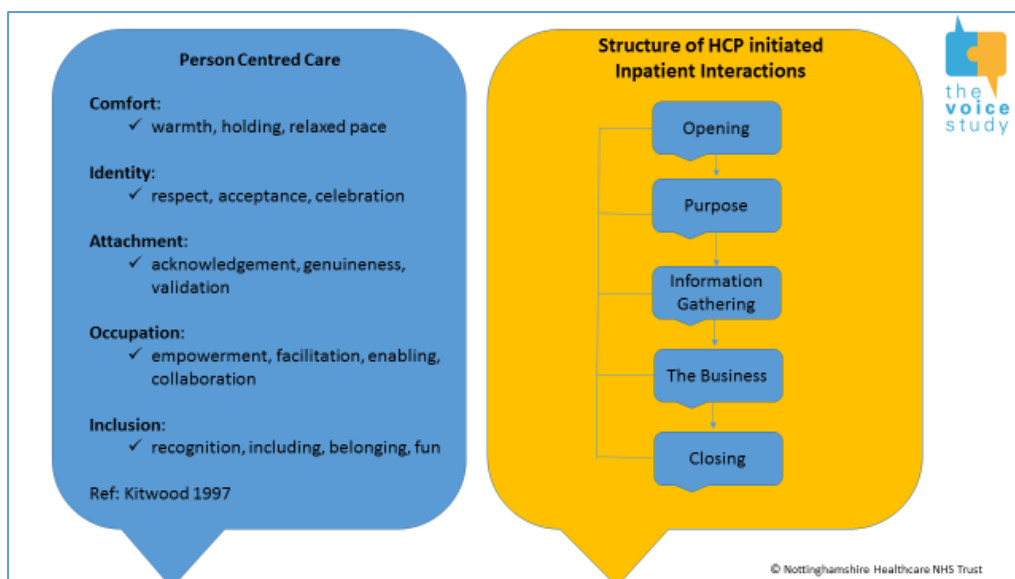


Figure 9: Summary of recommendations on structure of the encounter and Person-Centred Dementia Care

Trainees were provided paper-based resources to support exercises, including a ‘reflective diary’, a written transcript for a video workshops and a sheet of questions to consider during a final, small-group, ‘implementation’ exercise. Simulation workshops were supported by:

- Description of the scenarios
- List of tasks for healthcare professional to choose from
- Observation feedback sheets, to guide trainees in their role as observers of simulation
- Guidance on simulation for facilitators.

Simulations also required ‘props’ to support authenticity, including hospital beds, chairs, bedside tables, blankets and pillows. Other resources supported carrying out of their selected tasks, including a choice of drinks and biscuits, and wash things, with access to water, cups, and bowls. Simulation experts were clear that trainees should not be ‘pretending’ that something was there that wasn’t (i.e. miming), since the healthcare professionals should not be seen as ‘acting’ but rather as being themselves in their professional roles; only the simulator is truly ‘acting.’

The e-learning RLO forms part of the 'materials' of the course and will soon be available online (lead author: Rebecca O'Brien).

Who provided

The intervention provider should be specified, as they can have an impact on how an intervention is delivered.¹⁶⁶ Educators experienced in simulation highlight the importance of facilitation, and facilitator training. Formal and informal training opportunities were sought, including Masters-level training at the Trent Simulation and Clinical Skills Centre, participating in simulations and receiving feedback from the lead simulator.

Training was led by the research speech and language therapist, an experienced clinician and clinical teacher. She delivered most of the didactic teaching and introduced the training exercises. Two facilitators were required for simulation and small group work; one of the two other members of the core team acted as second facilitator. All were experienced clinicians and clinical educators. Two simulators were used per training workshop, with the lead simulator present to observe and support for the purposes of intervention development, due to the innovative nature of using CA-informed simulation.

If the intervention were to be delivered by others, specific consideration should be given to replicating necessary requirements, including experience with the clinical care of people living with dementia and clinical education.

How: Modes of delivery

Deciding how large training groups should be was part of the design process. CARM training suggested that a one-day course can be run for around 30 trainees, with small groups of up to seven.¹⁴¹ Considerably smaller groups, and more time, are required to deliver high-quality simulation. On the 'Dying to Communicate', two-day course, simulations lasted 45 minutes per trainee, with five or six trainees per group being optimal. This course ran with up to twelve trainees, two simulators and two facilitators.

It was clear that simulation workshops could only be allocated to half days, allowing four trainees to have a 45 minute simulation each. It was estimated for the pilot that a maximum of eight trainees could be invited.

Where

The host hospital had a suitable simulation training centre on-site, and available. This centre had a 'suite' of three clinical simulation and training rooms, with relevant audio-visual equipment for teaching in one room, and two other rooms equipped with a hospital bed, chairs and other necessary props. A second local hospital also had a clinical skills training centre, but less availability, so training was undertaken in two rooms. Such clinical skills centres are commonly found across UK hospitals, nursing and medical schools.

When and how much

Multiple sources of input and competing needs contributed to discussion on course length. Evidence on effectiveness would ideally inform decisions about duration. However, in both our systematic review (chapter 2) and that by Eggenberger et al,⁵⁶ there was great variability in the duration of communication skills training interventions, and neither review had sufficient data to determine how effectiveness of training might relate to duration. In the absence of definitive evidence, the decision balanced pressures of cost with the need for adequate intensity to be effective. Half day training was difficult for ward-based nurses.

Training was planned to occur over two days, with a one-month interval in between. This allowed sufficient time to cover multiple 'trainable' communication behaviours, video workshops and simulation, and to facilitate reflective activity between the two days. Having two full days also allowed time for evaluation activities to be completed before and after the training without attrition (healthcare professionals had an incentive to attend for the second day, when post-course evaluation took place, as they received further training). The e-learning activity was offered between training days, as consolidation.

Tailoring

Tailored interventions are delivered in an individualised way, so that not all recipients receive an identical intervention.¹⁶⁶ The experiential learning approach meant that the

course was experienced differently for each trainee. For example, each trainee has different experiences in practice, and in simulation to reflect on, and received individualised feedback from facilitator, peers and simulated patient. Each course included participants with a mix of professional skills and experience, so each course represented a different community of learning.¹²⁹

Modification

We undertook a pilot study of the training, specifically to allow for modifications before entering the feasibility testing phase.

Fidelity-planning

The extent to which an intervention is delivered as planned is referred to as 'fidelity'.¹⁶⁶ When a complex intervention is delivered by different people in different contexts, the possibility of unintended variation is introduced. The need for a clear process for maintaining and checking fidelity, has been recognised, including the potential impact of high or low intervention adherence on outcomes.¹⁶⁷ For the pilot and feasibility testing of the course, delivery was done by the developers, and was consistent across courses, so fidelity was not an issue. If others were to deliver the course, quality control measures would be required, such as ensuring trainers had undertaken the course first, and planning for train-the-trainer activities.

Pilot course

A pilot of the VOICE for Dementia communication skills training course was run, with two primary objectives:

1. To optimise the intervention and
2. To optimise the evaluation of the intervention.

These aims were consistent with the modelling of process as part of the 'Development' phase of the MRC complex intervention framework.¹⁶⁸ Whilst definitions of pilot and feasibility studies vary,¹⁶⁹ this pilot was designed to be a trial version of the communication

skills training course, to test whether the processes could all work together and to allow trainers, simulators, and a sample of trainees to experience the intervention and feedback on it.¹⁷⁰

Method

The pilot course consisted of running the training programme once prior to the start of the evaluation feasibility study, with research measures taken before Day 1 and after Day 2, as planned for the evaluation study (chapter 5). Trainees for the pilot course were invited by the project team on the basis of the following criteria:

- Considerable experience working with people living with dementia in the acute setting
- Experience in education and training of healthcare professionals
- Confident enough to work as 'critical friends' to the research team's senior clinicians/researchers, giving honest, face-to-face feedback
- Represent a spread of professional groups, including doctors, nurses and therapists.

Trainees were made aware that they would be invited to give verbal feedback as a group at the end of Day 1 and Day 2 of the training. These discussions were facilitated and noted by the research team and completed research measures and post-training evaluation forms were also considered. The core research team who delivered the training, including the lead simulator, also contributed their feedback on the intervention and the evaluation processes. The training took place on site at the acute hospital where the trainees were based. The intervention was delivered by two members of the core research team, with a third observing and participating as a trainee. The lead simulator acted in a supporting and observational role. Two simulators supported the evaluation scenarios and two supported the training scenarios.

Findings

Eighteen healthcare professionals were invited to attend the pilot over the four months preceding the pilot. On the first day, seven trainees were booked to attend, but two were unwell on the day. Five invited trainees attended both days of the training, and one clinician-researcher (Rowan Harwood) participated as a trainee to make up numbers.

i. Intervention optimisation

Trainees evaluated the training extremely positively, commenting that despite their experience, they valued their learning from the course. They made a number of suggested improvements, including expanding, reducing, simplifying and re-ordering various exercises and producing supporting resources. Changes to the simulations emerged from discussions with the lead simulator, trainees and trainers, which included: asking for specific, out-of-role feedback from the simulators; providing more props to avoid healthcare professionals 'miming'; increasing the range of simulation tasks; and encouraging pausing and re-running simulations. Trainers reflected that the training had run largely according to plan, with minor changes needed to the presentations and resources, and learning gained by them in how best to support simulation exercises in particular.

ii. Evaluation optimisation

Outcome measures were piloted at the beginning of Day 1 and at the end of Day 2 of the training (chapter 5). All five external trainees completed the measures. Trainees gave useful feedback on some of the items in the knowledge test, resulting in some re-wording. The confidence scales were completed without problems. Both knowledge and confidence scores showed positive changes pre- to post-training, suggesting they were appropriate measures with the potential to show a training effect. Practicalities before the course commenced proved challenging, including welcoming trainees, consent process, completing paper-based baseline measures, and completing a videoed simulation. An extra research team member therefore attended for the feasibility study. After reviewing these video recorded simulations, changes were made to the way the assessment simulation was introduced and timed. Review of the completed pilot evaluation forms showed extremely encouraging views of the training.

Summary of intervention design

This chapter has presented the ‘who, what, why and when’ of the intervention design processes. The development and evaluation of an evidence-based intervention is a complex, non-linear process. In this chapter, we have described how the VOICE training was co-produced with a wide group of informants. The resulting approach, based on original findings from the CA analysis, has been described in detail. We have presented findings from piloting the training course and its evaluation. Throughout this chapter attention has been paid to the implications for the delivery of the intervention beyond the context where it was developed.

CHAPTER 5: TRAINING OF ACTORS

Introduction

This chapter describes the training of actors, who play the part of patients for training or assessment purposes – known as ‘simulated patients’ (SPs). ‘Training’ includes pre-training preparation and resources, the pre-course training day and on-going feedback and coaching during the courses. We needed simulated patients for both the training elements of the courses, and the effectiveness evaluation study. This involved creating scenarios and training a team of simulated patients to bring those scenarios to life.

Six simulated patients were recruited, on the basis of expertise, experience and ‘looking the part’, i.e. age and gender appropriate for the scenarios. Their experience spanned:

- work in formative and summative settings
- in a variety of healthcare contexts
- simulating a range of acute, chronic, mental, and physical conditions
- meeting diverse educational agendas (breaking bad news, end-of-life consultations, exploring patient-centredness)
- being facilitated, self-facilitating and giving feedback
- knowledge and experience of confidentiality, simulation delivery (consistency, authenticity, adherence to learning outcomes) and teamwork.

Establishing training requirements

The six simulated patients recruited had to simulate six scenarios. Four scenarios were required for the training sessions (Jack, Maureen, Tom and Alice) and two scenarios for the evaluation assessment (Stan and Annie). Two training scenarios were used on Day 1 of the course (Jack and Maureen) and two on Day 2 of the course (Tom and Alice). The level of communicative impairment on Day 2 was greater than on Day 1, in order to present the trainees with more challenge, and more scope to demonstrate their acquisition of communication skills (table 10).

Table 10: Training requirements for simulated patients

Simulated Patient requirement	Evaluation assessment simulations	Training simulations
Give a consistent and <i>acceptably authentic</i> portrayal of the patient.	✓	✓
<i>Respond to 'trainables' (requests, closing) to give trainees opportunity to practice communication skills</i>		
Respond appropriately to one set task (refuse request 2-7 times).	✓	
Respond appropriately to a range of tasks (refuse request 2-7 times)		✓
Prolong the closing	✓	✓
<i>Respond as required to the individual needs of the learners</i>		
Stop and start in response to request to 'Time Out'.		✓
Repeat all/part of the simulation with the same trainee		✓
Give feedback out of role		✓

The training approach

Our approach was based on four out of the five domains from the practice guidelines from the Association of Standardized Patient Educators Standards of Best Practice:¹⁷¹

1. Safe work environment
2. Scenario development
3. Simulated patient training
4. Programme management (including communication/feedback processes and channels)

The fifth domain (professional development) was not relevant to course set-up.

Safe work environment

The design of the activity

Simulated patient safety was central in the development of the scenarios in terms of the physical, cognitive and psychological challenges of role portrayal. We moderated our requirements for role delivery in light of what was feasible and safe. For example, SPs were not required to exhibit physical symptoms that would lead to their discomfort, or disbelief on the part of the trainees. The complexity of delivering the simulation, providing opportunities for trainees to demonstrate the 'trainables' and framing feedback presented a

high level of cognitive challenge. We endeavoured to address simulated patient anxiety around meeting this challenge by openly acknowledging that, by its pioneering and unique nature, this simulation work was going to be difficult. We helped simulated patients gain understanding of dementia, and provided communication channels through which to share concerns.

Simulated patient debriefing/de-roling

The VOICE faculty responded to simulated patient requests for feedback on their performance, and time was explicitly allocated for the lead simulator to debrief the simulated patients. With the evaluation assessment scenarios, this involved eliciting simulated patients' thoughts on how the simulations had gone and addressing concerns or questions arising from unexpected events or psychological impact. For instance, one simulated patient needed to explore their response to a trainee who had made a request in a forceful way. With the training simulations, the lead simulator fed back her observations as well as inviting the simulated patients to share their thoughts on the simulations, facilitation and feedback processes. Further conversations proceeded through email and follow-up phone calls between the courses.

The simulated patient environment

Simulated patient training and most of the training courses took place in a venue that simulated patients had worked in previously, and was well-equipped. There was greater pressure on available space at the second venue, and so did not offer the same degree of privacy and preparation space for the simulated patients.

Respect for simulated patients

Respect for the simulated patients' personal boundaries was written into the scenarios and then reiterated when suggestions for modifications to the simulation task were mooted. For example, the simulated patients were never expected to remove all items of clothing even when this was suggested as being necessary for the correct way to listen to the patient's chest. Implicit in the trainees' tasks was also a limit on personal touch. No intimate exams were included in the task list.

Scenario development

Scenario preparation

The process included:

- Identification of the 'trainables' to determine what the simulations needed to deliver; the need to ensure the scenarios gave the trainees opportunities to practise and demonstrate the learning objectives i.e. the simulated patient had to refuse and prolong the closing.
- Scrutiny of the video recordings by the lead simulator to determine whether simulations could be developed from the patients filmed for the VOICE study. This step involved looking at whether the patients' demeanour, verbal and non-verbal communication could be simulated authentically enough, i.e. could behaviours be 'un-picked' to give the simulated patients ways to portray that patient?
- Identification of patients from the video material and CA transcripts on whom the scenarios could be based. These were selected on the basis of the level of communicative impairment.
- Creating a character for the scenarios based on the video recordings and CA transcripts, whilst respecting anonymity and privacy.
- Meetings and conversations were scheduled to draft, review and edit the scenarios prior to the simulated patient pre-course training day.

Scenario components

Once six patients had been identified, scenarios were developed to include:

- Patient Information: social background, insights into character, behaviour, appearance and demeanour. Creation of a 'back story' to provide an underlying logic for the patient's behaviour.
- Clinical information: reason for hospital admissions, dementia symptoms, communicative ability, retained abilities, previous medical history and current medication.
- Information for Simulator:
 - A description of what the patient knew and what they could do, e.g. 'Your name is Annie. You live with your daughter... Generally, you can take turns in a conversation.'

- A guide to the patient's manner of speaking taken from interactional patterns identified in the CA transcripts, e.g. you speak quietly and quickly, you giggle, you say things and smile 'I've made you happy. Hee hee hee.'
- Responses to the healthcare professional at the different phases of the interaction taken from interactional patterns in the CA transcript.

The scenarios were sent to two simulated patients to gain feedback on whether the information included was adequate for them to build the simulation. One simulated patient replied in the affirmative; the other suggested changes.

Simulated Patient training

Preparation for the pre-course training day

The training plan embedded the advice of the PPI representatives who, with their first-hand experience of caring for people living with dementia suggested that the simulated patients needed to understand the context of the patient experience, the patient's condition and to have realistic behaviour both verbal and nonverbal in order to simulate people living with dementia effectively.

One week prior to the training day simulated patients received their scenarios and background information and links to online resources to enhance their understanding of the patient experience and condition.^{32, 131, 132}

The pre-course training day (box 4)

One day of face-to-face training was arranged for the simulated patients. The plan took into account the order and the way in which the three elements should be addressed on the training day as well as introducing the educational aims. The nature of dementia and the VOICE study and its findings were introduced, 'Today is Monday' (a documentary showing 24 hours in a specialist hospital Medical and Mental Health Unit¹⁹⁴) was shown, and questions about dementia and watching video recordings from the VOICE study shared. Simulated patients worked in 'role groups' to prepare their scenario.

Box 4: programme for simulated patient training day

SP Pre-Course Training Day

Outline for the day

9.00am:	Introductions & Objectives for the day
9.15am:	Introduction to the VOICE Project (Becca O'Brien & Sarah Goldberg)
10.15am:	Break
10.30am:	Living with dementia (1): Viewing of 'Today is Monday' followed by Q & A session on symptoms, behaviour and care (Prof Rowan Harwood)
11.30am:	Living with dementia (2): First-hand insights (helping to build authenticity into the roles through watching film footage) (Becca O'Brien)
12.30pm:	Lunch
1.15pm:	Scenario familiarisation and practice: Day 1, Training Scenarios - Maureen & Jack (Becca O'Brien, Sarah Goldberg & Megan Murray)
2.15pm:	Scenario familiarisation and practice: Day 2, Training Scenarios - Alice & Tom (Becca O'Brien, Sarah Goldberg & Megan Murray)
3.00pm:	Break
3.15pm:	Scenario familiarisation and practice: Assessment Scenarios - Annie & Stan (Becca O'Brien, Sarah Goldberg & Megan Murray)
4.00pm:	Learning Capture & Troubleshooting: Insights/challenges/what ifs? Practical matters: Plans for Pilot Days 1 & 2
4.30pm:	Finish

On-going training

On-going simulated patient training took the form of feedback based on observations of the simulations by VOICE faculty, and lead simulator. The lead simulator attended the initial courses, and subsequently in response to the emerging support needs of specific simulated patients. Further training was tailored around the simulated patient's individual on-going training needs. For example, one simulated patient took the opportunity to shadow a colleague simulating the same role in order to modify her portrayal.

Modifications to the training

Introduction of simulated patient feedback

Simulated patient feedback was not built into the original plan for the training simulations, but this was added after the pilot course. Simulated patients gave feedback 'out of role'; trainees or facilitators framed specific questions such as 'Did you feel I was rushing to get away at the end?' Simulated patients were advised to frame their feedback around the trainees' demonstration of person-centred care (chapter 4, figure 9)

Simulated Patient response to use of touch

It became apparent during the courses that touch was frequently used as a therapeutic tool by healthcare professionals. This had been acknowledged, but not explored at the pre-course training. The VOICE faculty provided insights to simulated patients on how they should respond to healthcare professionals' touch during simulations.

Programme quality management

Feedback on the quality of the training was requested from trainees at the end of the VOICE in Dementia Courses (chapter 6). Simulated patients were asked to complete written feedback and were invited to a face-to-face evaluation session. Key points gathered from simulated patient feedback to be considered in future simulated patient training interventions included:

TRAINING RESOURCES

- Simulated patients needed the combination of the written scenario, CA transcript and video recordings to bring the scenarios to life. One single resource was inadequate.
- Simulated patients would have preferred more video clips of the patients. With one video clip their response repertoire was limited.

PRE-COURSE TRAINING TIME

- Simulated patients felt that more time for the scenario familiarisation and practice was needed; half a day was insufficient

ON-GOING TRAINING SUPPORT

- A feedback session with the faculty two weeks into the programme provided opportunities to make amendments to the delivery of the simulations. This also provided an opportunity to validate simulation performance and promote confidence.

Conclusion

Authentically simulating a person living with dementia for the purposes of communication skills training is difficult, but experienced patient simulators were able to successfully learn and deliver simulations following a careful process of scenario development, training on specific aspects of dementia and the educational objectives of the course, and active feedback and support.

CHAPTER 6: CAN WE TRAIN? COURSE EVALUATION STUDY

Aim

We aimed to evaluate the effectiveness and acceptability of the communication skills training intervention. We used the first three levels of Kirkpatrick's four steps evaluation mode: reaction, learning and behaviour.¹⁷² The aims of the VOICE communication skills training course were that healthcare professionals would increase their confidence in caring for people living with dementia, increase their knowledge of dementia communication, and change their communication behaviours. The communication skills training had to be acceptable and useful to the healthcare professionals, and feasible to run. Line managers had to be willing to release staff from clinical practice to attend the course, and see the benefits of dementia communication skills training.

Study Design

Study Outline

We evaluated the course using a before- and after- study design. This was chosen as an efficient research design for detecting changes in communication knowledge, confidence and behaviour. It allows for between-individual variation (prior experience, personality, knowledge, native interpersonal skills, and so on) to be controlled for. Before- and after- study designs can overestimate the benefits of an intervention.¹⁷³ Before- and after- designs are commonly used to evaluate dementia training interventions.¹⁷⁴

The study was reviewed and approved by the NHS Health Research Authority IRAS 211817.

Setting

Staff were recruited from wards in two acute hospitals, one a teaching centre, the other a district general hospital. Both hospitals have a specialist Dementia and Delirium unit, where several of the participants worked.

The training courses and study assessments were held in a suite of two or three clinical skills rooms. The clinical skills rooms were equipped with hospital beds and bedding, tables and chairs and sinks.

Participant identification and recruitment

The healthcare professionals all volunteered to take part in the study, following either an approach from their ward or professional manager, or by responding to posters or word of mouth. Healthcare professionals interested in the study were referred to the clinical researchers who answered their questions, and sent them a participant information sheet. It was made clear that the study involved a two-day training course, that the participant had to seek approval from their line manager to attend, and that the course was not suitable for them if they were not working with people living with dementia. It was emphasised that participation was dependent on agreement to attend both days, and taking part in the evaluation study, including videoing of simulated encounters with a simulated patient. Those who agreed were reminded of their right to withdraw consent without prejudice. If still interested in the training and willing to participate in the study, the healthcare professional was booked onto one of the six VOICE communication skills training courses. Written informed consent was taken on the morning of the first day of the course by one of the facilitators. The participant had the opportunity to ask more questions before consenting.

We aimed to recruit a spread of healthcare professionals (doctors, nurses and therapists) across the six courses and within each course. We therefore capped numbers of each professional group on each course at half the total number of places available (a maximum of five). Healthcare professionals who spoke English as a second language were welcome and encouraged to participate.

Inclusion Criterion:

- A registered healthcare professional (doctor, nurse or therapist) working with patients with dementia at one of the two participating hospitals.
- Willing to give informed consent for participation.
- Male or female, aged 18 years or above.

Exclusion Criteria

- Unable or unwilling to attend both days of the course.
- Unwilling to be video recorded for the simulated encounter assessment.

Methods

Outcome measures

Prior to the start of the course first day, participants were asked to complete the following questionnaires:

- i) Demographic information (healthcare profession, years of experience working with people living with dementia, ethnicity and gender).
- ii) The Confidence in Dementia Scale ('CODE');⁸⁶ This is a nine-item scale to assess a person's confidence in caring for a person living with dementia. A sample question is: 'I feel able to interact with a person with dementia when they cannot communicate well verbally'. Responses were on a Likert scale from 1=not able to 5=very able.
- iii) Three additional questions linked to the course 'trainables', asking participants to rate their confidence on a scale of 0= no confidence to 10=totally confident on: 'ending a conversation where the patient tries to continue it'; 'achieving a task in the person with dementia's best interest when their first response is a refusal'; and 'awareness of the best way to ask someone with dementia to do something'.
- iv) Dementia Communication Knowledge Test: we developed a ten-item, multiple-choice answer test of general and course-specific knowledge of communication in dementia (appendix 2).

At the end of the second day of training, participants were asked to complete the following questionnaires:

- i) Confidence in Dementia Scale.⁸⁶
- ii) Five questions to test confidence in specific areas of dementia communication. These questions asked participants to rate their confidence on a 0-10 scale (0=no confidence to 10=total confidence) on awareness of communication skills; use of communication skills; and the three questions asked before the course (as iii above).
- iii) Dementia Communication Knowledge Test (as iv above).
- iv) Evaluation of the training course. We asked participants to rate on a scale of 1 to 10 if the course was interesting, useful, informative, and enjoyable; whether they felt respected, and safe; whether the course was challenging and relevant to their practice, fulfilled their learning goals, and had improved their practice. Participants

were asked if the course met their expectations and if they would recommend it to their colleagues. The evaluation was adapted from one used by the 'Dying to Communicate' end-of-life communication course, which also used simulation as a teaching method.

Participants were asked at the end of day two of the course, and by e-mail one month later, if they remembered and were performing the skills they had learnt; and if they considered the skills to be useful in their role.

Space was provided on the evaluation questionnaire for participants to record what they had learnt from the course; what was most helpful about the course; how they thought the course would help with caring for patients; and if there was any part of the course to consider changing.

Simulated encounter measure

We evaluated whether participants changed their communication behaviours following the VOICE communication skills training. We video-recorded simulated encounters (with simulated patients) before and after the course.

The simulation assessment involved the participants being given one of two scenarios, containing brief details about the 'patient' and the generic healthcare task to be completed, which was either to get the simulated patient out of bed, or get the simulated patient to drink some water and eat a biscuit. Participants were asked to treat the encounter as if they were dealing with a real patient in a side-room, closing the interaction appropriately. There were two simulated patient roles for the assessments, played by a male and a female simulated patient. To create a clear distinction between the evaluation and teaching, the simulated patients doing these assessment scenarios were not involved in the simulation workshops during the same training course. Simulated patients were trained to refuse the task several times and to extend the closing of the interaction. In order to keep the course to time, and to orient the healthcare professional to some sort of time pressure, they were given an indicator (a knock at the door) after ten minutes had elapsed, to prompt them to close the encounter and leave as soon as was appropriate. The participant completed the

assessment with a different role at baseline and outcome; with half the group doing the baseline assessment with one scenario and the other half with the other scenario, in a cross-over design. The lead simulator monitored simulated patients' performance to ensure consistency (by watching the video recordings after the courses).

We developed two checklists to rate the participants' communication behaviour shown on the video recordings.¹⁷⁵ These checklists identified specific, objectively-identifiable, communication behaviours, which had been identified in the CA and taught on the course (requests and closings). The rating forms are in appendix 2 and 3.

Ratings were made independently by two trained, experienced, speech and language therapists, blind to whether the video was made before- or after- training. Videos were edited to remove time references to morning and afternoon which might have unblinded the raters (blurring clocks, removing greetings which mentioned morning or afternoon). The raters were trained during a one-day training session. They were introduced to the VOICE study and the communication behaviours taught on the course. They then rated video-recorded simulated assessments from the pilot study and compared their results. Through discussion of differences, they achieved good reliability by the end of the training. For requests, they agreed on the behaviours being present or absent on 73% of occasions, kappa 0.42, moderate agreement; for closings, the raters agreed on 89% of occasions; kappa 0.75, good agreement.¹⁷⁶ Videos were assessed in a random order using a random number sequence. We calculated agreement between the two rates (kappa scores) after the rating exercise.

We also invited PPI representatives to rate the video recordings. During intervention development meetings PPI representatives raised the possibility that by teaching healthcare professionals to make requests in a more entitled way, and to more clearly signal closing of an interaction, they might appear less person-centred. We therefore used a measure of the emotional tone of the communication, the Emotional Tone Rating Scale, ETRS.¹⁷⁷ We sought to check whether people living with dementia and their carers would find changes in healthcare professionals' communication behaviours 'acceptable' and no less person-centred after the training than before. The ETRS is a valid and reliable scale designed to

‘measure the underlying affective qualities of communication with older adults’ (p376).¹⁷⁷ Williams reported high inter-rater reliability with intra-class correlation for agreement = 0.95. The paper describing the scale stated that it required minimal training to use. Users rate twelve characteristics on a five-point Likert scale (1=not at all, to 5=very): ‘The healthcare professional’s communication was...nurturing, directive, affirming, respectful, patronising, supportive, polite, bossy, caring, dominating, warm, controlling’.

Members of the intervention development group (including three PPI representatives) used the ETRS on a pilot video-recorded simulation assessment. We determined that the scale was easy to use, but agreement on scores between raters was low. We invited PPI representatives from the Alzheimer’s Society research network and from the University of Nottingham’s Dementia and Frail Older Person’s PPI group, who had no previous involvement with the VOICE study, to attend at least three of six, four-hour, group rating sessions. All the raters either had dementia themselves or cared for a person living with dementia. We trained the PPI raters by asking them to answer a simple question to practice using a Likert scale: ‘how was your journey to the hospital today? Give a score of 1-5 where 1 is ‘terrible’ and 5 is ‘excellent’. We introduced the ETRS, gave instructions on completion, and asked them to score a pilot video as practice. We then showed two short clips from the same assessment video. We did not define the ETRS terms, and asked raters to use their own understanding of what they meant. Raters were not told the videos were before- and after- a training course. Videos were presented in a random order, paired for each session, so that individuals rated both the before- and after- video for each healthcare professional. Raters scored each encounter after watching two minutes of video: one minute starting from the participant’s first request and one minute taken from the start of the closing sequence. Video clips were shown twice.

Sample size

We estimated that it was feasible to train 40 healthcare professionals over a six-month period taking into account staff rotas and release from the wards. Other studies evaluating dementia communication skills training courses using a before-and-after design ^{56,174} have had similar sample sizes ranging from 15 to 48.^{21,57,178-181} We over-recruited to courses (up to ten for each course) to allow for healthcare professionals cancelling at late notice.

Data analysis

To test inter-rater agreement, kappa scores were calculated for each communication behaviour shown in the assessment simulations that the speech and language therapists and PPI members rated. Participant-related data were summarised using descriptive statistics. Differences in responses before- and after- training were evaluated using paired t-test and the Wilcoxon signed-rank with 95% confidence intervals. Mean changes in Emotional Tone Rating Scale were assessed using paired t-test.

McNemar's test was used to assess change in the communication behaviours. The McNemar exact test was used when the discordant pairs totalled <20. The results reported for the speech and language therapist rating are where both raters agreed the communication behaviour was present or absent.

Results

We delivered the course six times between January and May 2017. We recruited 45 healthcare professionals who attended one of the courses. 44/45 participants attended the second day. For many course dates, the course was oversubscribed, though cancellations at late notice meant numbers attending each course ranged from six to nine participants. Participants comprised a mixture of doctors, nurses and therapists attending each course with 8/45 (18%) doctors; 19/45 (42%) nurses, 17/45 (38%) allied health professionals (occupational therapists, physiotherapists, speech and language therapists and one orthotist). One activities coordinator also participated. Forty (89%) of the participants were female, 40 (89%) were white, four (9%) Asian and one identified as mixed race. They had a median five years' experience working with people living with dementia, range 0.3 to 33 years (table 11). Twenty-nine participants (64%; four courses) attended the training at site one, the rest at site two (two courses).

Table 11: Demographic characteristics of evaluation study participants

Profession	
<i>Doctors</i>	8/45 (18%)
<i>Nurses</i>	19/45 (42%)
<i>AHPs</i>	17/45 (38%)
<i>Other</i>	1/45 (2%)
Median years of experience working with patients with dementia (interquartile range)	5 (3-8) years
Gender female	40/45 (89%)
Ethnicity	
<i>White</i>	40/45 (89%)
<i>Asian</i>	4/45 (9%)
<i>Mixed</i>	1/45 (2%)

The baseline questionnaires for one participant were not returned, despite repeated requests. One participant did not attend day two of the course nor complete outcome questionnaires. Analysis was therefore confined to 43 participants. Five participants missed at least one question on the Dementia Communication Knowledge Test.

Participants increased their confidence in dementia care and knowledge of dementia communication following communication skills training. Confidence improved in all categories, and overall on the Confidence in Dementia Scale (32.8/45 versus 38.3/45), and course-specific confidence questions (tables 12 and 13).

Table 12: Confidence in Dementia Scale, before- and after- the course (scored on a Likert scale of 1= not able to 5=very able; total maximum 45)

No.	Question: I feel able to...	Pre-course mean (95% CI) N=43	Post-course mean (95% CI) N=43	Difference (95%CI) N=43
1	... understand the needs of a person with dementia when they cannot communicate well verbally	3.3 (3.1-3.5)	3.9 (3.7-4.1)	0.6 (0.4-0.9) p<0.001
2	... interact with a person with dementia when they cannot communicate well verbally	3.5 (3.3-3.7)	4.1 (3.9-4.3)	0.6 (0.4-0.9) p<0.001
3	... manage situations when a person with dementia becomes agitated	3.1 (2.9-3.4)	3.9 (3.7-4.1)	0.7 (0.4-1.0) p<0.001
4	... identify when a person may have a dementia	3.6 (3.4-3.8)	4.2 (4.0-4.4)	0.6 (0.4-0.9) P<0.001
5	... gather relevant information to understand the needs of a person with dementia.	3.6 (3.5-3.9)	4.3 (4.1-4.9)	0.6 (0.4-0.9) p<0.001
6	... help a person with dementia feel safe during their stay in hospital	3.5 (3.3-3.7)	4.2 (4.0-4.4)	0.7 (0.5-0.9) p<0.001
7	... work with people who have a diagnosis of dementia	4.0 (3.8-4.2)	4.6 (4.5-4.8)	0.7 (0.4-0.9) p<0.001
8	... understand the needs of a person with dementia when they can communicate well verbally	4.0 (3.8-4.2)	4.5 (4.3-4.7)	0.5 (0.3-0.7) p<0.001
9	... interact with a person with dementia when they can communicate well verbally	4.1 (3.9-4.3)	4.5 (4.4-4.7)	0.4 (0.2-0.6) p=0.0002
	TOTAL	32.8 (31.6-34.1)	38.3 (37.2-39.5)	5.5 (4.1-6.9) p<0.001

Table 13: Confidence in course-specific communication items before- and after- training course (scored 0=no confident to 10=totally confident)

Confidence in:	Pre-course	Post-course	Difference, p-value
Ending a conversation where the patient tries to continue	4.5 (3.7-5.3)	7.8 (4-10)	3.3 (2.3-4.3) p<0.001
Achieve a task in the persons best interest	4.6 (3.8-5.3)	8.2 (6-10)	3.7 (2.8-4.5) P<0.001
The best way to ask someone to do something	4.7 (3.9-5.4)	8.7 (6-10)	4.0 (3.1-4.9) P<0.001

Participants improved their knowledge on the course-specific Dementia Communication Knowledge Test (mean 7.2/10 versus 8.8/10), mean improvement in total score 1.5 (95% CI 1.0-2.0) (table 14).

Table 14: Dementia Communication Knowledge Test; before- and after-training course

No.	Question	Pre-course answers correct	Post-course answers correct	Difference in proportion (95% confidence interval), p-value
1	Speed of speech	30/44 (68%)	41/43 (95%)	27% (12%-42%), p=0.001
2	Introductions	40/44 (91%)	37/43 (86%)	5% (-18%-9%), p=0.48
3	Communication strategies	37/44 (84%)	38/43 (88%)	4% (-10%-19%), p=0.56
4	Gaining attention	43/44 (98%)	42/42 (100%)	2% (-2% - 7%), p=0.33
5	Repeating back question when patient says 'no'	37/44 (86%)	36/42 (84%)	-2% (-17% - 13%), p=0.76
6	Framing requests when expecting reluctance	38/44 (86%)	43/43 (100%)	14% (3% - 24%), p=0.01
7	Dealing with a refusal	25/44 (57%)	39/43 (91%)	34% (17% - 51%), p=0.0003
8	Open ended pre-closure question ('anything else?') when closing	17/42 (40%)	34/42 (81%)	40% (21%-59%), p=0.0001
9	Indicating a healthcare conversation is about to end	13/42 (31%)	27/42 (64%)	33% (13%-53%), p=0.002
10	Non-verbal communication to signal closure	36/43 (84%)	41/43 (95%)	12% (-1%, 24%), p=0.08
	TOTAL (mean, 95% CI)	7.2 (6.8-7.7)	8.8 (8.4-9.1)	1.5 (1.0-2.0) p<0.001

The course was acceptable to participants with 95% reporting the course met their expectations, and 98% would recommend it to other healthcare professionals. The course evaluated highly in all the categories investigated. At the end of the course, high scores were given to the question asking the participants if they remembered the skills, were using them in practice, finding them useful and if they were confident in awareness and use of communication skills (table 15).

Table 15: Course evaluation (scored on a scale of 1 to 10, 10 affirming the statement).

Question	Mean score/10 (range); n=44
Do you remember the skills?	8.7 (6-10)
Are you performing the skills?	8.2 (6-10)
Are the skills helpful?	9.6 (8-10)
The course was:	
Interesting?	9.3 (7-10)
Useful?	9.4 (7-10)
Informative?	9.4 (7-10)
Enjoyable?	9.1 (7-10)
I felt respected	9.7 (8-10)
I felt safe	9.8 (7-10)
Challenging?	8.4 (3-10)
Relevant to my practice?	9.5 (7-10)
Fulfilled my learning goals	9.1 (5-10)
Improved my confidence	9.2 (6-10)
Confidence in:	
Awareness of communication skills	8.6 (7-10)
Use of communication skills	8.5 (7-10)

The response rate to the email follow-up one month after the second day of the course was 31/44 (70%). Participants gave a mean score of 8.6/10 to the question 'do you remember the skills you learned in the training course?'; 8.4/10 for the question 'are you performing the skills you have learned in the training course?' and 9.3/10 for the question 'are these skills helpful in your role as a healthcare professional?' There was a small increase in the proportion of participants remembering what was taught (mean 8.2/10 at the end of the course versus 8.6/10 a month later; $p=0.02$); no change in whether the healthcare professional was performing the skills learnt (mean 8.7/10 versus 8.4/10; $p=0.02$), but a small reduction in whether the healthcare professional felt the skills were helpful (9.7/10 versus 9.3/10, $p=0.003$).

Communication behaviours in the evaluation simulated encounters were only considered present or absent where both speech and language therapist-raters agreed. Inter-rater

reliability for each communication behaviour was mostly fair or moderate (kappa range 0-0.79; tables 16 and 17).

Table 16: Interrater reliability of speech and language therapist blind-ratings of the presence or absence of communication behaviours in making requests during evaluation simulation

Communication practice	Example	Inter-rater reliability first request (kappa)	Inter-rater reliability subsequent request (kappa)
High entitlement request: proposal	Let's: (Let's try a yoghurt).	0.48 Moderate	0.69 Substantial
High entitlement request: announcing future action	Going to/we'll	0.22 Fair	0.57 Moderate
High entitlement request: statement of need	I need you to; I need to; You need to	0.59 Moderate	0.55 Moderate
High entitlement request: direct instruction	Take a step	0.32 Fair	0.39 Fair
High entitlement request softened eg. with checking / permission-seeking question	Is that okay? Alright? Okay?	0.43 Moderate	0.47 Moderate
High entitlement: Other	Forced alternatives which presumes compliance ('Which finger shall I use?')	0.42 Moderate	0.24 Fair
Lowering contingencies: Reduces the size or duration of task	Just, little, pop, quick, for a minute:	0.12 poor	0.55 Moderate
Lowering contingencies: Request includes 'try'	Try: (Shall we give it a try then?)	0.66 Substantial	0.64 Substantial
Lowering contingencies: Explicit offer to help	(What about if I give you a hand?)	0.31 Fair	0.79 Substantial
Lowering contingencies: Frame accurately as collaborative or joint action	We; let's; for me: (Shall we go for a walk);	0.49 Moderate	0.17 Slight
State the action explicitly (not just stating the reason for the action)	(What I want to do is give you a shave)	0.08 poor	-0.02 poor
Action required of patient is not stated explicitly	(Can I take your blood pressure?)	n/a	n/a

Table 17: Interrater reliability of speech and language therapist blind-ratings of the presence or absence of communication behaviours in closings during evaluation simulation

Communication practice during closing	Examples	Reliability (kappa)
Vague arrangement at closing	(See you soon; See you around)	0.51 Moderate
Specific closing arrangement	(See you tomorrow; I'll get that cup of tea now.)	0.25 Fair
Notification ahead of final activity	(Before I go...)	0.31 Fair
Announcing completion of final activity	(That's us all done).	0.42 Moderate
Announcing explicit intention to leave	So I'm gonna go now.	0.31 Fair
Non-verbal actions supporting verbal closing	(Re-positioning table; tidying equipment)	0.40 Fair
Closing idiom or saying	(All done and dusted; I'll leave you be; We'll keep a close eye on things; You take care).	0.29 Fair
'Is there anything else?' type open question during closing	(Anything you want to ask me before I go? Is there anything I can help with?)	0.37 Fair
Mismatch between nonverbal and verbal actions during closing	E.g. healthcare professional gives verbal indications of closing but doesn't make physical moves to indicate closing/leaving; healthcare professional opens new lines of enquiry (verbal) whilst walking away (non-verbal).	0.41 Moderate

Impact of training on communication behaviours displayed in the evaluation simulations was variable. Results showed that following training, when closing an interaction, participants were: less likely to make a vague arrangement (56% before versus 16% after); more likely to be specific about closing the conversation (51% versus 79%); and more likely to announce completion of the task (0% versus 14%) (table 18).

Table 18: Blind ratings of communication behaviours during closings of evaluation simulations

	Communication technique seen before training	Communication technique seen after training	McNemar's test Odds Ratio (95% CI), p-value
Vague arrangement making	24/43 (56%)	7/43 (16%)	0 (0, 0.24); p<0.001
Specific closings	22/43 (51%)	34/43 (79%)	4 (1.3, 16.4); p=0.007
Notification ahead of closing	7/43 (16%)	11/43 (26%)	2 (0.5, 9.1); p=0.4
Announcing completion of task	0/43 (0%)	6/43 (14%)	n/a; p=0.03
Announcing explicit intention to leave.	22/43 (51%)	23/43 (53%)	1.1 (0.42, 2.9); p=0.8
Nonverbal actions supporting verbal actions	6/43 (14%)	6/43 (14%)	1 (0.2, 4.3); p=1.0
Closing idiom used	16/43 (37%)	22/43 (51%)	2 (0.7, 6.5); p=0.24
Anything else question asked	7/43 (16%)	4/43 (9%)	0.6 (0.1, 2.2); p=0.55
Mismatch between verbal and non-verbal communication	1/43 (2%)	3/43 (7%)	3 (0.24, 158); p=0.62

There were no significant changes in behaviour on the communication techniques related to requests (table 19). Eighty-six per cent of participants did not make the initial request explicit; 79% did not make the subsequent request explicit; 95% did not soften the initial request by checking agreement ('...is that okay?'). However, many participants already used some of the requesting communication techniques prior to training. For example, prior to training, 74% of healthcare professionals were highly-entitled when making a 'subsequent' request (i.e. not the first request); 93% of healthcare professionals reduced contingencies for subsequent requests.

Table 19: Blind ratings of communication behaviours during requests in evaluation simulations

	Communication technique seen before training	Communication technique seen after training	McNemar's test Odds ratio (95% CI); p-value
Initial request made in a highly entitled way	2/43 (4%)	8/43 (18%)	7.0 (0.9, 315); p=0.07
Subsequent request made in a highly entitled way	32/43 (74%)	37/43 (86%)	2.2 (0.6, 10); p=0.27
Initial request softened	2/43 (5%)	3/43 (7%)	1.5 (0.17, 18.0); p=1.0
Subsequent request softened	8/43 (19%)	11/43 (26%)	1.4 (0.5, 3.9); p=0.65
Initial request includes a reduction of contingencies	13/43 (30%)	9/43 (21%)	0.6 (0.2, 1.8); p=0.45
Subsequent requests include reduction of contingencies	42/43 (98%)	40/43 (93%)	0.3 (0.4.2); p = 0.62
Initial request is explicit	3/43 (7%)	3/43 (7%)	1 (0.1, 7.5); p=1.0
Subsequent requests are explicit	2/43 (5%)	8/43 (19%)	7 (0.9, 315); p=0.07

In the evaluation of emotional tone in the evaluation scenarios, the PPI raters showed poor inter-rater reliability on ETRS items (kappa 0.01 to 0.10). The communication of the healthcare professionals was thought to be slightly less warm (mean 3.4/5 before versus 2.9/5 after the training course; p=0.03) and communication was more controlling (2.2/5 versus 2.7/5; p=0.03). There were no differences in the other categories of emotional tone (nurturing, directive, affirming, respectful, patronizing, supportive, polite, bossy, caring).

Free-text feedback identified that the most helpful parts of the course were the simulation workshops including immediate feedback, and being able to practice the skills learnt (mentioned by 27 participants).

'The simulation exercise. We were able to take part in a small formative groups where we were open and honest with each other. The feedback from the 'patient' was very helpful.'

[Participant 17]

'I wouldn't say I enjoyed it as such, but the simulation part was really helpful. Being able to stop and replay was particularly good and getting feedback/watching others'.

[Participant 18]

The reflective exercise between the two days was mentioned by five participants:

Reflection of my interactions. Discussion with colleagues, to learn from their experiences and realise that we all feel the same challenges.

[Participant 12]

Specific techniques/skills learnt were mentioned by eight participants. Being able to watch others undertake communication tasks, interdisciplinary learning and small group sizes were also valued.

The participants were asked how they thought the course would help them caring for patients. A number of participants responded that they felt more confident in their own skills:

Given me the confidence that what I do is correct and works and that I have a high entitlement to do task, and lower the contingency to ensure important aspects of care are achieved.

[Participant 25]

Much more confidence with persisting with/approaching patients with dementia.

[Participant 36]

Discussion

We evaluated a dementia communication skills training course using a before- and after-design. The course was acceptable to participants. They reported using the communication techniques taught a month after the training. Participants increased their knowledge of dementia communication, were more confident in communicating with people living with dementia and showed some changes in communication behaviours in a simulated encounter. Participants found particularly useful: the simulation workshops, the reflective

exercises and the teaching on the specific communication behaviours. They felt that increased confidence would improve their care of people living with dementia.

The evaluation of educational interventions is less well-developed than for therapeutic interventions in healthcare. Acquisition of relevant knowledge and skill is generally helpful to healthcare professionals, but is cumulative. Individuals will integrate the output of any given teaching intervention with their prior experience, expertise and attitudes. Large-scale randomised controlled trials with 'hard', patient-related outcomes (such as mortality) are logistically difficult (or impossible). In any case, there are many other influences on patient-related outcomes than communication alone. Evaluation of education therefore typically focusses on intermediate outcomes, usually self-reported by trainees. We used the long-established theoretic evaluation framework of Kirkpatrick to demonstrate improvement in both confidence and knowledge.¹⁷²

A before- and after-design has disadvantages, not least 'social desirability bias'; trainees may, sub-consciously report what they think course providers or educational researchers want to hear. If they have enjoyed a course or activity, they are likely to be well-disposed towards it regardless of any real benefit. We undertook a feasibility study, to see if we could run a practical course, including innovative use of simulated patients, within funding, practical and logistical constraints. The evaluation of outcomes was statistically underpowered. Our trainees were volunteers, who by the very act of taking part were displaying enthusiasm for the subject, were well-disposed towards learning and almost all had better than average knowledge, skills and confidence before training. We used a mix of established and (unvalidated) bespoke measurement scales, which we mostly analysed by item (and which had face-validity, at minimum).

We attempted to measure changes in communication behaviours, using a video-recorded simulation, which we blind-rated according to a checklist of behaviours. We demonstrated some changes in behaviour, especially relating to closings, but none relating to requests, which perhaps formed the greater part of the training. This was partly due to the high baseline prevalence of some behaviours, and under-powering. We achieved good inter-rater reliability when training our independent speech and language therapist-raters, using video

material from the pilot course, but this was not so apparent in rating the evaluation simulations. This will have reduced power to detect real differences, but also illustrates how complex communication behaviours are and how difficult it can be to objectively ascertain them. A communication encounter involves multiple elements: assessing a situation and communication level or ability, creating a rapport with the communication partner, assessing the practical problems and solutions for task completion, and undertaking a negotiation. This is dynamic. For example, a healthcare professional may 'test' the situation by making a polite, non-threatening, low-entitled, indirect request, maybe with some explanation or rationale ('I'm wondering if you'll let me take your blood pressure?'). If the person is reluctant or refuses, different approaches may be tried sequentially, amidst possible diversions or distractions, gradually introducing higher-entitled requests and lowered-contingencies, until acceptance or abandonment (as part of a 'leave and return' strategy). Different techniques may be tried at the next attempt.

We tried to capture this in the communication behaviours checklist, for example by differentiating between first and subsequent requests. Even so, the raters (who were speech and language therapists, specialist healthcare communication clinicians, with a grounding in both practical communication problems and linguistics), struggled to reach agreement on whether a behaviour was displayed or not. The task was perhaps easier for closings, where the action was more defined and concrete. The healthcare professional trainees themselves considered the course to be successful on their self-assessments of reaction (whether the learning was a valuable experience), confidence (whether it enabled individuals to know if they were doing the right thing), and learning (whether the participant's knowledge increased after the course). 'Confidence in competence' is an important professional attribute.²⁵ An unmeasured outcome reported by trainees was that we gave them a language to articulate what they already did, helping them to teach or guide members of staff they are managing or mentoring.

Alternatively, some communication behaviours may simply be difficult to change, or our methods were inadequate to do so.

We did not formally measure whether the course changed patient outcomes, but healthcare professionals reported that they were still using the knowledge and skills one month following the course, and had started disseminating it to colleagues.

We concluded that the VOICE communication skills training course was feasible to run, and defined conditions for it to do so successfully, including use of simulation and video excerpts of real-life communication encounters. The evaluation of educational benefit, based on intermediate outcomes, strongly suggested that it had been successful. However, we only studied a relatively small group of healthcare professionals who were experienced and interested, and cannot extrapolate to the general healthcare workforce. A cadre of highly-trained practitioners might however be useful in front-line practice, in role-modelling, case-management of difficult cases and teaching.

CHAPTER 7: CAN WE TRAIN? INTERVIEW STUDY

Introduction

We developed and evaluated a communication skills training intervention using a before- and after- design, using quantitative measures of course perception, knowledge, confidence and behaviours. The course included innovative features, and the use of simulation in training was unfamiliar to healthcare professionals other than doctors. We wanted to understand and explore these further, in order to help validate, or refine, the intervention choices made. We were also interested in whether, and how, the communication strategies that we taught were useful in practice, and wanted to understand practical and contextual factors in real hospital settings that might enable use and dissemination of the findings, or provide barriers to implementation. We were aware that hospital clinical settings are busy and hard-pressed, and that resources and time for staff training are limited. We wanted to understand the value placed on communication skills training by clinical managers.

Methods

Participants

Fifteen healthcare professionals and clinical managers were interviewed three to six months after the communication skills training course.

Interviews were conducted with ten healthcare professionals who attended the training, two ward managers who manage healthcare professionals who had attended, and three healthcare professionals who both attended the training and had managerial or supervisory roles over other healthcare professionals (table 20).

Table 20: Interview study participants

Participant code	Job role
HCP1	Junior doctor
HCP2	Physiotherapist
HCP3	Speech and language therapist
HCP4	Middle grade doctor (registrar)
HCP5	Senior doctor (consultant)
HCP6	Nurse specialist
HCP7	Speech and language therapist
HCP8	Junior doctor
HCP9	Speech and language therapist
HCP10	Middle grade doctor (registrar)
HCP11	Nurse specialist
HCP12	Nurse
HCP13	Nurse manager
M1	Physiotherapy manager
M2	Nurse manager

Procedure

All healthcare professionals who attended the course were invited to take part. There were challenges in arranging times and suitable locations for interviews, and, on occasions, interviews were postponed at the last minute due to work pressures or changes in shifts. Telephone interviews were offered to participants as an alternative. Five were conducted face-to-face in the participants' workplaces, ten interviews were conducted over the telephone.

Semi-structured interview schedules were used, with separate schedules for healthcare professionals and ward managers (appendix 4). Interviews were carried out by an

independent occupational psychologist (Louise Thomson) who was not involved in the development or delivery of the communication skills training. Interviews were audio-recorded and transcribed verbatim.

Analysis

Qualitative data were analysed (by Louise Thomson) using a framework method drawing out themes concerning the usefulness and effectiveness of the communication skills training and the facilitators and barriers to transfer of the learning into clinical practice.¹⁸² NVivo 10 (QSR International), was used to manage the data and the analysis.

Transcripts and reflective notes were read and the audio-recording listened to, to familiarise the researcher with the content. The first few transcripts were read line-by-line, and open coding of these transcripts took place. These codes were used to develop an initial analytical framework, a structure of categories and themes under which the codes could be grouped together. Remaining transcripts were then read and coded using the analytical framework. Constant comparison was used to compare codes across the data and to refine the structure of the framework. Coded portions of each transcript were extracted into the framework matrix. Finally, data were interpreted through a process of thematic comparison, in which all items of coded data within the categories were compared against each other for similarity and difference. Themes and sub-themes were generated by bringing together items of data that were conceptually similar.

Results

Eighteen themes and eleven sub-themes were identified, describing the experience and effectiveness of the communication skills training. These themes and sub-themes were organised into categories derived from the study aims (table 21).

Table 21: Interview study themes and sub-themes

Framework categories	Themes	Sub-themes
EXPERIENCE OF THE PROGRAMME		
Most useful parts	Learning new techniques	High entitlement
		Closings
		Openings
		Requesting technique
		Simplifying and breaking down
		Body language
		Terminology for techniques
	Evidence of what works	
Less useful parts	Need for training in communication with aggressive dementia patients	
EFFECTIVENESS OF TRAINING		
Training methods	Use of simulation	Convincing as patients
		Feedback on performance
		Uncomfortable for some
		Watching back simulations
	Use of videos	
	Inter-disciplinary approach	
Structure of the training	Good organisation	
	Balance of activities	
	Use of a second day	
Effectiveness of approach	Effective training approach	
	Alternative approaches	
	Who should attend	
TRANSFER INTO PRACTICE		
Facilitators to transfer into practice	Frequent use of skills	
	Confidence to try	
	Cascading Learning	
Barriers to transfer into practice	Time with the patient	
	Need for Critical Mass	
	Low frequency of use	

Experience of the training: most useful parts

Learning new techniques

All participants described how they had learnt new techniques for communicating with people living with dementia, and that this learning had been the most useful part of the training. The specific technique identified as most useful varied between individuals, and for some it was multiple techniques.

HIGH ENTITLEMENT

Many healthcare professionals described how this was a new skill that they had learnt through the training and that they had adopted into their usual practice. Even healthcare professionals experienced in working with people living with dementia, who reported that some of the other techniques were echoed in their previous practice, reported that 'high entitlement' had added a new approach for them.

I've changed my behaviour almost certainly because I think I used to address things in a bit more of a lower entitlement kind of fashion which doesn't always work [HCP8]

I think probably having worked with dementia for a while I think I have always done [some of the other techniques] so I do not think that made any difference but I definitely think the increase in entitlement... I have been aware of that, I do not know if I used to do it before or not but I have certainly been more aware of it since the course [HCP3]

It was widely perceived that 'high entitlement' ran counter to other communication approaches that healthcare professional receive training in, and are encouraged to use. Healthcare professionals found it easy to adjust their communication style to a high entitlement approach, but felt that this might be harder for less experienced healthcare professionals.

Those juniors just don't have that [confidence]. You don't teach that at university, you teach much more of a consent idea, the idea that it's very much on the person's terms, and you should give them time, which is absolutely right... That is just not going to work with this client group [HCP2]

CLOSINGS

Healthcare professionals found the techniques for closing an interaction to be useful. This was particularly due to healthcare professionals finding this to be something that had been difficult and often protracted before. Healthcare professionals described how this helped them to feel a closure to the task, as well as helping the patient.

I really found it quite interesting about the sort of closing, that can be a challenge for all of us and so that, you know, using those tips like making a specific arrangement, being explicit and sort of non-verbally and sort of indicating that it's coming to an end.... so drawing on those skills again, that's really helpful [HCP7]

Closing a conversation to mark the end of a task was also a clear and definite event, which made it easier to remember to apply at that specific point in time. The use of a variety of props or actions to mark out a change in the activity was described by healthcare professionals.

I used the wrapping-up idioms a lot, and I find that's a really good way to end a session and notify someone that this is the end of ... end of the, sort of, task [HCP2]

Using props or ... using the environmental skills to finish the conversation like by moving the table or putting things down or using terminology that I'm going to finish the conversation [HCP5]

Healthcare professionals again noted that this technique of using specific actions to help close down an interaction ran counter to the practice that many had previously used. A number of healthcare professionals specifically described their use of open-ended questions at the end of an interaction with a patient, which they had stopped doing after the training.

as a Nurse, it has been my practice for 30-odd years that when I leave a patient, I always say, 'is there anything else I can do for you before I go?', that is my end line for all patients and I have stopped doing that now [HCP6]

One healthcare professional went further to describe why the new techniques for closings ran counter to previous approaches practised, as it could sometimes feel discourteous and

that you weren't necessarily checking that you were leaving the patient in the best state. They explained how they had justified the change to a more direct closing due to the needs of other patients.

because I think that is something that people really, really, struggle with, is leaving somebody who is still talking to them... Because it is just rude isn't it and it is against everything that we would normally do but [this training] is about being able to give people permission to say, do you know what, sometimes you might just have to do that, you know, it is one thing just walking away and ignoring somebody straight off but you know when you have given them five minutes, and you have tried your techniques and whatever and they are still going and you know that you have got ten more patients needing your care, then... You just have to say, I did my best [HCP6]

This particular technique was reported to be useful with a wider group of patients.

the ending the consultation strategy I probably have consciously thought about a lot more than I did previously, not necessarily just with dementia patients but with patients in general [HCP1]

OPENINGS

Two healthcare professionals mentioned the opening of a consultation as another communication technique that they found useful. In particular, the need to have a closed and focused opening, rather than an open and vague one was mentioned by healthcare professionals.

And I just tell all my colleagues not to open, like, 'are you okay? Are you well today?' Or 'are you...?' [HCP2]

to put the start, to introduce myself and to clarify the purpose of the communication at that time [HCP5]

REQUESTING

A number of healthcare professionals spoke about the usefulness of looking at different ways of asking patients to do things. They found a number of techniques to be helpful when

requesting patients to co-operate in an activity, such as providing a rationale, stating an action as a joint act between patient and healthcare professional as a way of convincing the patient to join in with the task.

so it has been more successful from the beginning the sessions because I have used the phrases that were suggested in the ways of asking people to do things and so I have probably had less occasions where we have had a difficulty or a challenge in an assessment [HCP9]

SIMPLIFYING AND BREAKING DOWN

Three healthcare professionals talked about the lessons they had learnt about breaking things down into smaller tasks, and the benefits they had seen in using this with patients.

The breaking it down into the two boxes ... and the hand-out sheet that she gave us. I found myself constantly talking to my juniors and my other staff members about using those, sort of, tips that they broke them down into different areas. The 'just checking' question. The 'tries' and the 'pops', and like, reducing down your commands into smaller things, and trying to simplify things better [HCP2]

BODY LANGUAGE

Learning about the importance of their non-verbal language was reported by two healthcare professionals. More specifically they described how they now understood how their body language indicated certain things to patients, and how it could be used to continue the interaction with a patient.

I've started using more non-verbal cues to maintain the contact with the patient [HCP5]

TERMINOLOGY FOR TECHNIQUES

A number of healthcare professionals described the value of assigning terminology to the techniques learnt in the training. Having a meaningful label not only helped to describe the technique appropriately in a way that made sense to the healthcare professionals, but it also supported them in explaining the techniques to colleagues.

so the entitlement and the contingency, I have never heard of that before. I had never heard it described in that way and although I kind of did it, I did it not knowing what I was doing So actually, but then being able to explain that to other people, is really really helpful [HCP6]

it was quite nice just using that language because it underpinned what we're doing, you know most of us are delivering this but it's just giving it a term [HCP7]

However, one healthcare professional found the need to use certain terminology to describe the techniques confusing and a bit contrived.

they kind of wanted us to use, I can't remember the words now, certain words and I think that was quite confusing sometimes for people, that high entitlement ... they did say that they'd tried all to think of different ways of putting it and that was the easiest way but ... could get hung up on oh hang on what are we doing now, even though we knew what to do, so there was like a label on it which I think was a bit confusing [HCP1]

EVIDENCE OF WHAT WORKS

In addition to learning new communication skills and techniques, a number of healthcare professionals found it particularly interesting and useful to understand the evidence and research findings that were the basis for the training. They described how this gave them the theoretical and evidence-based knowledge behind the practical skills taught, and this linking of the two elements was particularly valued by some.

I just thought it was so fascinating hearing all the research that had gone on, learning about things that have actually, seen have worked on the wards, it was kind of evidenced in a very useful way that these things had worked with patients, these techniques have worked and there was evidence of that when ... talking about all the recordings that she has made of certain types of initiating assessment and some of the things that had been used had worked

100% of the time she had observed it and that was really great to hear that sort of evidence [HCP9]

Experience of the training: least useful parts

Most healthcare professionals were unable to identify any element of the training that had not been useful in some way.

Need for Training on Communicating with Aggressive Dementia Patients

One healthcare professional felt that a useful addition would have been specific training on managing and communicating with patients displaying aggression. This was an expectation that they had before going on the course; it was a challenging area of practice that would be useful to have some practical advice and skills training on.

I guess it would be very difficult for the course to do but actually quite aggressive dementia patients which are the most difficult and wasn't simulated, yes, wasn't really part of the course and they're actually the hardest people to deal ... because that is a big part of dementia, the really difficult to manage patients [HCP1]

Effectiveness of the training: methods

Use of simulation

Simulation was widely considered the most effective training method used during the course. Healthcare professionals felt that the opportunity to role-play different healthcare activities with simulated patients reinforced their learning of the skills and techniques taught, and helped them to embed new skills into their practice.

I think role-play is definitely a really effective way and it is used in lots of different ways in my medical training as well, although it is difficult to do, it is obviously easier to sit in a lecture, you learn more and remember more from actually having to do it in a simulated environment [HCP10]

I really liked the opportunity to do the role play, that was really important because I think immediately, rather than just being given a piece of paper with this is what you should be taking away, you're actually embedding it into your practice and trying to change your behaviours [HCP7]

Healthcare professionals described how the use of simulation gave them an opportunity to try out different approaches and techniques in a safe, yet realistic, environment, emphasising the need for healthcare professionals to adapt and change their approach each time. This was supported by 'live feedback' from peers and facilitators during the simulation exercise.

the simulators had so much value as well, that you could challenge yourself, and see whether or not you got better from doing it. Or you could practice some of the techniques, so that was the thing, it's that we were practising them all the time. I think it's such a valuable way of learning, and it was completely new to me, and I really felt it was really beneficial really [HCP2]

we got feedback from the people watching, we could stop and start if we needed to and try out different things and see how the patients reacted in different ways [HCP4]

I liked the way that you could try something that you might not actually do in practice and that ability to free you halfway through the scenario was really good. And then just getting feedback from the experts really, on our delivery in those situations [HCP6]

Allowing healthcare professionals to choose role-specific tasks to try out with simulated patients added to the reality of the situation, supporting the embedding of the learning.

being put in that situation where you had a task to do with a person who was acting like they had dementia and then having opportunity to have a go at it and then discuss what went well, what did not go well, discuss other possibilities and then have another go, I thought that was fantastic... You did actually feel you were in that situation and you were trying to complete an

assessment with somebody with cognitive difficulties. It felt very real. That was absolutely brilliant way to learn strategies that you had been taught at the beginning of the course [HCP 9]

they were different scenarios as well, so you could sort of select something that was relevant to your profession like doing a swallow assessment or doing an oromotor assessment but you know, the patients presented very differently and it was interesting seeing how other people work [HCP7]

Being able to practise the techniques in a safe environment through the simulation increased healthcare professionals' confidence in the use of the techniques.

I really enjoyed it. ... having a go at something in a safe environment, where you are not going to be, you can be critiqued but not criticised, I think a lot of people find that very useful.[HCP6]

I mean there was a lot of time to do role play and practise that and you know, actually I think that was really good because it just made you feel quite comfortable and confident going out as well [HCP7]

it definitely gave me the tools that I needed to go on to use it myself so I feel like it was a lot more natural when I use it on a day to day basis but it was nice to be able to practise that in a safe and secure environment where you do get feedback from your colleague before going out to use it [HCP12]

Convincing as patients

Many healthcare professionals commented on the quality of acting in the simulation, and found the actors to be very convincing as patients with dementia.

the actors were really good, they were very convincing [HCP4]

How the simulations were used was also described as being very realistic: healthcare professionals had a little background information about the patients, but needed to respond to unfolding situations.

The actors and actresses were absolutely amazing and it was real because you got a little bit told what you might be going to do with the actors and actresses, but you did not know a lot, so that was so real that you walked into a situation with somebody who had dementia and I know they were actors and actresses, but you would have thought they were people with dementia and you had to think on your feet [HCP11]

However, one healthcare professional felt that they were unable to act in a completely natural and comfortable way because it was a simulated encounter. They found it difficult to ignore the fact that the simulated patients were acting. Despite this, they felt that actors were good, and that the simulated scenario did not change the way they would have interacted with the patient.

I thought these actors were actually better than I have experienced in the past.... maybe it was because we ... knew they were acting, it felt maybe it was as much our feeling that we were not always acting in a completely natural way because it was an artificial situation so maybe it was a bit of both, maybe it was partly the actors but partly us knowing they were acting made it quite difficult but I do not think I particularly, I do not think I responded in an unusual way or a way that I would not have done with a patient, it just felt strange [HCP3]

Uncomfortable for some

Some of the healthcare professionals were less comfortable with the simulation exercises than others. In particular, doctors felt that their non-medical colleagues were more nervous because they were less familiar with simulation. In contrast, this was a familiar form of learning for doctors.

I think it was quite apparent that as a medic I probably felt a lot more comfortable doing the simulated scenario because I think we do it a lot more in our training than the other health specialties so that didn't really faze me

doing that, whereas I think quite a few of the nurses were really, really, nervous about that and didn't particularly seem to like doing it [HCP1]

For some participants, completing simulation exercises in front of others could be intimidating. However, when carried out in safe and positive setting this initial reaction would dissipate.

I think it can be intimidating for people, myself included, but I feel that for me it's one of the best ways to learn and I think you're in a good environment where you shouldn't feel intimidated, it certainly shouldn't make you feel that way. It can be quite scary to do it but if you receive the feedback and things and it's often a good way of learning [HCP8]

Non-doctor participants also noted their lack of familiarity with this learning method but described that their apprehension was quickly overcome during the exercises.

through physiotherapy you'd have no simulated patients whatsoever, well not when I trained,... I was really apprehensive about the actors – I thought it was going to be a bit weird and a bit fake. In fact I found it really useful, and I found it not weird at all [HCP2]

Feedback on performance

Healthcare professionals recalled how the feedback they received during the simulation exercises was particularly useful in developing their learning and skills. The formative nature of the feedback was highlighted as a beneficial tool, allowing healthcare professionals to try out different approaches during the exercise. Being able to see and participate in the feedback to other members of the training course was also identified as a good way of learning

seeing other people mess up as well, that was great. So you really thought, oh, okay, yeah, I've done that before, oh I know now what to do instead. [HCP2]

we got feedback from the people watching, we could stop and start if we needed to and try out different things and see how the patients reacted in different ways ... I think that was really useful. [HCP4]

Feedback from the simulated patients was highlighted as a valuable addition, especially as direct feedback from dementia patients was typically infrequent.

really, really helpful to get their feedback as well, both positive and negative. Because I think at times I was questioning myself... 'am I doing this right?' So to get that feedback to say... 'No, I found it really nice'... But with working with dementia patients, you don't often get that feedback [HCP2]

Watching back simulations

A number of healthcare professionals stated that an additional learning tool would have been to have healthcare professionals watch their own videoed simulations.

but it almost felt like it would have been useful to see because that's the often we do that on simulation, we have to watch ourselves back and you can learn from that so it felt like almost an opportunity missed [HCP1]

Use of video material

Healthcare professionals found the video recordings of communication interactions with people living with dementia to be a good learning method. It allowed them to see a wide range of examples of the different techniques that were described, which promoted modelling of positive behaviours. Seeing evidence of how different approaches led to more effective communication with patients reinforced the learning.

because I wasn't really aware until watching the videos of the impact that it had, but I had found it effective when I've changed the way that I, when I've used a different way to ask questions at the end of an interview or to close an interview [HCP10]

the videos, where you saw other people go wrong, was really, really helpful, because you watched someone else mess up and then, well, one: it didn't make you feel so bad when you messed up, which is absolutely fine, and then also you, sort of learnt completely from their mistakes and also saw how they changed that situation as well [HCP2]

Inter-disciplinary learning

Healthcare professionals responded positively to the inter-disciplinary nature of the training course, which included nurses, doctors and allied health professionals learning together. Participants noted that most of their work was conducted in Multi-Disciplinary Teams (MDTs), but the opportunity to attend training with such a mix of professions was rare. They felt that the MDT approach to training was better than running the course with individual professional groups.

I think it was really nice working in a setting with loads of different health professionals which we often don't really get to do that, we work together with everyone but you don't actually learn together so I really like that [HCP1]

I think if it had been all speech therapists it would have been not as good [HCP3]

Learning about the perspective and approach of the different disciplines was described as being valuable. Seeing fellow healthcare professionals carry out different tasks in the simulations gave insights into other professions' interactions with patients and some of the challenging aspects of the work they experienced. Having a better appreciation of constraints on different healthcare professionals in terms of the task, and time available to complete it, was an important learning point.

in my group there were a couple of speech therapists so we could see what sort of things they would use and how they could use those techniques as well in their day-to-day role so it was nice [HCP4]

you start to understand the difficulties different people have in their roles but ...I think it is important to try and understand where they are coming from ... because the interactions are different aren't they depending on what your role is ... if you are a Nurse based on a ward and you are doing a 12 hour shift, you have got lots of opportunities to re-visit a situation or to change what you are doing, if you found one technique doesn't work, but if you are a Doctor, and you are coming to do a physical examination, or you're a Physio and you want somebody to come for a walk with you and those, Phlebotomists just want to take a blood sample, they are there for five minutes, that interaction is going

to be very very different so, ... I think it is good for other people to be able to recognise that as well [HCP6]

This was also thought to generate more understanding and reduce conflict between professions.

I think it was really beneficial to hear everyone's different perspective because often we can be quite negative about each other [HCP1]

One manager thought that the transfer of training into a clinical environment was supported by inter-disciplinary learning:

I think the increase in education for us as an MDT has been really helpful and as I say, sharing that knowledge with the MDT, particularly junior members of the Team [M1]

Effectiveness of the training: structure

Good organisation

Healthcare professionals remarked on how well-organised the training had been in terms of the booking and administration, the venue and activities on the day.

The whole thing was very well-organised to be honest, we were sent me stuff in advance, we were sent stuff in between the days, we were sent things after the days to sort of consolidate and remind ourselves to just think about what we'd learnt, so there was plenty of follow-up from that point of view [HCP4]

Balance of activities

Healthcare professionals felt that there was a good balance of activities between the theoretical and evidence-based learning and the practical work through simulation. There was a logical progression in the way the course was structured, and that the pace of this progression was right, with the training neither feeling too rushed nor too slow.

I thought the structure of it was really good... we were taught different techniques and the theory behind it and then we got to test those out... so I

*thought it was really well-organised and very logical steps going through
[HCP4]*

Healthcare professionals liked time for reflection, discussion and feedback. Having this time built into the programme allowed healthcare professionals time to think about the implications of the learning for their practice.

[the trainer] was always asking for our input so that was really good and just being able to hear what other people were feeling and you could get that sense through the day that things were clicking and people were really reflecting on their clinical practice and how they could improve it [HCP3]

Having the variety of activities and teaching methods was also welcomed, as it kept healthcare professionals engaged.

It's a good mix actually, I think if you are sat in one place and being taught for a length of time then you know it can be quite difficult to keep the concentration up but in a ... if you're mixing things up and having videos and doing workshops, that I think is a lot more helpful in terms of getting people involved and getting you to actually, it helps the learning experience, so I think it was a good variety of things [HCP8]

Use of second day

Healthcare professionals generally found the two-day structure to be effective. Returning for a second half-day reinforced learning from the first day. It gave an opportunity to practice skills and try them out in their usual work, before returning for further role play and feedback.

*two sessions was good as well because it helps to consolidate that knowledge
[HCP8]*

One healthcare professional felt that the second day was not necessary.

I did think the second day dragged a little bit because it felt very repetitive ... I know it is for research as well as just being training ... if it was just training I think you'd have just needed the first day really [HCP1]

Two healthcare professionals mentioned the logistical challenge of being able to attend both of the dates for the course, and one healthcare professional manager reported that this had prevented some healthcare professionals attending the training.

it was just so difficult to find somebody not having annual leave in one month, but then having it in the other month. That was the only thing [HCP2]

Effectiveness of the training: overall approach

Effective training approach

There was consensus that the approach adopted for the training was effective. There was acknowledgement that the course was labour-intensive and therefore expensive to run, but this was seen as an inevitable consequence for high-quality training of specialist skills.

I really liked the videos and the audio stuff, I really liked the simulators as well. I almost... I just... I think that was a really perfect way of doing it, I know it must be really expensive to do it that way, which is difficult [HCP2]

I cannot think of a better way to do it but I am sure it is not a cheap way of training or an easy way of training but it is so much more effective than lots of other things that you do on-line training and just watching clips, actually getting the opportunity to trial them with an expert there helping you out if needed is great [HCP9]

Alternative approaches

Healthcare professionals were asked if there were any alternative training approaches that could be used to teach the communication skills they had learnt. Some suggested that elements of the course could be delivered on-line, but not all of it. However, others argued that on-line learning was not an effective approach for some staff and suggested paper-based workbooks instead.

I guess it could be delivered as an online sort of resource but I do not think it would be quite as effective because I think a lot of discussion was quite helpful with people's own experiences. I think that would be the most

effective way but I guess the videos could be shown, I guess some of it could be done prior to a face-to-face [HCP3]

One thing I'm struggling with our core dementia training is getting staff to do the e-learning. Not all staff are very good on computers. ...For some of our staff...they might not be able to access that and that would be my worry, so if we do have an e-learning component, we need something that somebody else might access, you know, so work books might be useful [HCP11]

Who should attend?

Healthcare professionals commented that the training should be aimed at a wide group of hospital staff who had contact with people living with dementia. It was further suggested that the participants who had attended the training had been people with an interest in and prior experience with dementia, so may already be relatively good at communication with this group of patients. Other groups of staff may be in greater need of the training.

I think the training would of been as helpful if not more helpful for people who have not had experience of dementia or just starting out [HCP3]

Absolutely everyone [should have the training].... Certainly anyone who has patient contact [HCP11]

Some specific groups of healthcare staff were mentioned too.

I think it would be beneficial for a wider group of health professionals to do, especially like nursing assistants actually, because I think they're often with patients that work a lot more intimately with patients so I definitely think they could be a health care group that were included [HCP1]

[junior doctors] get taught a lot of communication skills throughout our training but we were never ever taught what techniques to use with people with dementia and actually when you're on a general medical job, very much as I said on my ward probably 30 to 40 per cent have dementia or delirium or

something, then that's the same very much across the board in most hospitals so I think it would be quite useful if we could try and get that run some similar courses aimed more at the maybe just one and two levels or maybe even going to various hospitals and try and do it as part of their training [HCP4]

Transfer into practice: facilitators

Frequent use of skills

Healthcare professionals were asked about any factors that facilitated the transfer of the skills they learnt on the training course into their everyday practice. The most frequently cited factor was the frequency with which the healthcare professionals were able to use the techniques they had learnt. Healthcare professionals working on wards with a high proportion of patients with delirium or dementia reported that being able to apply the skills on a regular basis, helping to reinforce the learning.

so many times a day, if you're doing a ward round, with certain number of patients and you're doing it all the time so probably that's why it's easier to adopt because actually, and with everyone, because you're repeating it really [HCP1]

Some healthcare professionals described how they were asked to help colleagues with particularly challenging patients, and this allowed them to practice different approaches and techniques.

my colleagues will be like, 'oh, please can you help with this person, I was just really, really struggling with them'. From this, this and this reason, and it has given me the opportunity to say... to approach people in a different way, and to try things in a different sense, and definitely we've had different results from me doing it versus them [HCP2]

A few healthcare professionals, who were working in an area where there were fewer dementia patients, had used the techniques with other types of patients and found them to be beneficial.

[I have] found them just helpful with everyone, not necessarily with dementia patients [HCP1]

Confidence to try

Healthcare professionals also reported increased confidence in trying different communication techniques with their patients.

I mean it is a confidence thing as well because you've done the training so you actually feel more confident in the way that you communicate with patients because you feel you've had the training, okay, I can do this and you don't feel necessarily so bad if things don't go necessarily the way you want them to go [HCP8]

Cascading learning

Healthcare professionals reported that they had cascaded the skills learnt to other members of their teams. However, one felt that their colleagues didn't use techniques as much as if they had attended the course themselves.

It was a really good experience and something that I am now promoting and telling staff you know we really need to get this embedded in the work that we do [HCP11]

I fed back about the course, and just some of the stuff that we used, and definitely people thought that the leaving idioms were really useful... We learn from each other quite a lot, we do a lot of stuff together, but I reiterated some of that, and... yeah, I don't think they probably use it as much as if they had actually been on the training [HCP2]

Transfer into practice: barriers

Time with the patient

A lack of time with each patient was frequently cited as a barrier to using the communication skills in practice. This increases the pressure on healthcare professionals which can mean that they fall back onto previously-used communication approaches.

you're aware in day-to-day life that you're not necessarily using the best techniques all the time because there's just not the time to put all that into practice sometimes but that's not really anybody can do anything about is it, just the nature of the NHS [HCP4]

Interruptions during a patient consultation further reduced time available with that patient, and disrupted the ability to apply the communication skills in practice. The fast pace of activity of the ward was sometimes not conducive to effective communication with a patient.

A lot of it's a time problem as well, you're starting a task and you're interrupted by someone to go and do something else and then you're going up to do something and then you kind of dealing with some other issue and then, yes, I think it's probably a bit more like the situation and the time [HCP8].

Need for critical mass

A number of healthcare professionals felt that there was a need for a critical mass of staff on a ward to be trained with these communication skills. Only when the majority of staff adopt these communication techniques, would there be sufficient consistency in practice for it to really benefit the patients.

unless you get a critical mass, I think that could impact on it because you've got some people who are trying hard to do it that way and other people that are not following and that could be confusing to the person with dementia, that there are different approaches, you know consistency when you find the right way, I think is really important [HCP11]

One of the managers interviewed reported that consistency could also be negatively affected by the multi-disciplinary nature of teams, which could lead to a variety of approaches being adopted with people living with dementia. This reinforces the benefits of potentially training a group of staff from an MDT.

sometimes the MDT is very beneficial but sometimes the MDT does become a barrier, so we can only educate so much and then a lot of it comes down to staff perceptions of patients with dementia and them being willing to change their approach. So, we do a lot of teaching but as I say, it does not always fall into practice with the other members of the MDT, so that is sometimes a barrier [M1]

Low frequency of use

Some healthcare professionals who attended the training were not working in areas where there were a lot of patients with dementia. This meant that they were not frequently faced with situations that called for them to use the communication skills that they had learnt. Talking about the 'high entitlement' technique in particular, one healthcare professional said:

I just haven't had patients that I've needed to do that with because we've not had anyone feel uncooperative, I would use them and I actually think they're good but I haven't needed to [HCP1]

Discussion

The interviews with healthcare professionals attending the voice communication skills training course and their managers has demonstrated that the participants found the course acceptable, useful and were remembering and using the skills in practice. The use of simulation was particularly valued as an opportunity to practise skills in real time. Learning from other professional colleagues was also useful and valued. There were challenges to using the skills in practice and focusing on a critical mass of healthcare professionals on a ward attending the course might be beneficial.

Interviews allow an in-depth exploration of issues, and may reveal things that cannot be anticipated in advance. This study provided an independent and overwhelmingly positive description of what trainees thought about, and took from, the course, some months after it had taken place. However, interviews also

represent a 'public voice', with the risk that participants report what they think they 'should' be thinking or doing, or what they think the interviewer wants to hear.

Some of the findings betrayed mis-understanding – for example, that requesting in a highly-entitled way was a mechanism for making requests, not a separate category from it; or that the communication techniques taught would take more time, rather than to save it, as was intended. However, overall, it appears that course participants had understood and retained what was taught, were using it in practice and finding it useful.

CHAPTER 8: PATIENT AND PUBLIC INVOLVEMENT

We have involved service users and the public in every stage of our research.

The University of Nottingham's Dementia, Frail Older Person and Palliative Care PPI group was founded in 2012 as a means to involve carers and people with dementia in our research. We felt this was needed to provide the necessary support and training to members who were potentially experiencing stressful personal circumstances during the course of their involvement in research. The group has 24 members (there is some natural turnover) and meets for two hours, ten times a year, on a set day each month. We provide regular training, both internally and externally. We have facilitators for the group (two research assistants and a research fellow), administrative support (funded from NIHR grants) and senior academics regularly attend. As a thank you to the group for their continued support, we provide a Christmas lunch once a year. As academics, we benefit from the PPI group as their lived experience of dementia contributes ideas and insights into our research.

The group currently supports six active studies and ten PhD student studies. We pay PPI members an inconvenience allowance for attending study management meetings and steering committee meetings, intervention development group meetings and focus groups, and for time to read and comment on study documentation, in line with INVOLVE recommendations. We also reimburse travel costs. Where funding is available, we encourage PPI members to submit abstracts for conferences and to attend conferences with the research team.

At various stages of this project from the initial idea to dissemination, we have involved carers, people living with dementia and interested lay people. In total, we have included 16 carers or lay people (mostly carers) and three people living with dementia in this research (13 from our PPI group, six via the Alzheimer's Society).

Developing the study proposal

Our monthly meetings with the PPI group meant we already knew that communication between healthcare professionals and people living with dementia on hospital wards was an important area that needed improving.

The methods for researching this area were suggested by a speech and language therapist (RA). We felt that we needed to agree the methods, involving video-recording people living with dementia on the ward, as acceptable with the PPI group. Insights from the PPI group were collected through two meetings and a survey. The PPI groups were attended by twelve carers or lay people and one person living with dementia. These identified the importance of the topic of communication between staff and people living with dementia, the need for staff training in appropriate skills, and the group provided examples of helpful staff communication behaviours. The group discussed the acceptability of video-recording interactions at length, and agreed that video was important to capture non-verbal communication, and suggested that mealtimes and discharge discussions were potentially important occasions to video. They also highlighted the possible need for multiple cameras or wide angle lens to capture all participants in an interaction (staff, patients and carers).

One of the group, Kate Sartain agreed to be a co-applicant on the grant. As co-applicant, she attends all the project management group meetings. She has provided detailed feedback on the application and helped to write the lay summary.

PPI and governance

We recruited a further two PPI members to attend our project management group (PMG) meetings. These members both had recent lived experience of close family members with dementia who had experienced hospital care. We recruited another PPI member to the study steering committee (SSC) and asked the Alzheimer's Society to provide a further representative at this meeting. These PPI members at the PMG and SSC meetings support our research with constructive suggestions and challenge our assumptions at times.

Development of study documentation prior to ethics submission

Our PPI co-applicant reviewed all study documents and the lay summary submitted to the NHS Research Ethics Committee, as did a second carer of a person living with dementia. The review ensured the language used in the participant information sheets was acceptable to someone with dementia or their carer. One of the PPI reviewers, following her review of documentation, asked whether family members would be involved in the video-recorded conversations. Her concern was that if the conversation was about a sensitive matter (for example, a conversation about discharging the patient to a care home), the carer should be present and she would not want the study to interfere with this. This resulted in us changing our procedures slightly to allow an informal carer to be present during the video recorded conversation if they wished. We also introduced carer participant information sheets and consent forms for them to be included in the video recordings (two carers were included in the video recorded conversations).

Intervention Development

Three PPI members including Kate Sartain were members of the intervention development group (which also included healthcare professionals, educational experts, and experts in including simulation in training, conversation analysts and academics). The team met four times over a period of five months for whole day meetings. The intervention development group discussed the duration, content and structure of the training including the simulated patient role profiles and the content of the reusable learning object. The group was shown video recordings to be used in the training to get their views on the acceptability of them. The PPI members made the following recommendations on the training:

- i) The course should be two days rather than one. It was felt that one day was insufficient for healthcare professionals to grasp the content and change their approach behaviour.
- ii) There should be a reflective diary between day one and two of the course. This was an innovative idea which proved very successful on the course and was developed into a reflective workshop on day two.
- iii) The PPI members questioned how person-centred some video-recorded healthcare professionals were. The videos chosen illustrated well the communication techniques we were to teach on the course. However these

comments changed the focus a little. The focus of the training became how healthcare professionals use the taught communication skills techniques alongside person-centred care.

- iv) The PPI members, considered our initial method for rating communication behaviours shown in the simulation assessments would be too difficult for service users to use (as they would have found the rating form difficult to use themselves). This issue together with the issues raised by the PPI members that the techniques we were teaching healthcare professionals might result in them being less person-centred resulted in us choosing the Emotional Tone Rating Scale (ETRS) as a tool for service-users to rate the simulated encounters before and after training. All members of the intervention development team practiced using the ETRS on a pilot video-recorded simulation assessment. It was found to be acceptable by the PPI members, though agreement between the group members on rating scores was low.

Delivering the training intervention

Kate Sartain attended two of the two-day training courses. Her role was to support the participants (healthcare professionals), help with administration of consent and evaluation measurement scales, and to report back to the team on the fidelity of the intervention and the acceptability of the training from a service-user perspective. She reported that the course was acceptable, well-run and delivered what was planned. Kate Sartain considered that the simulated workshops were done in a very supportive way, but raised a question about whether there was more we could do to support participants who are very anxious about simulation. This question was raised after Kate Sartain noticed how one participant appeared 'out of her depth' and did not return to day two of the course. This situation occurred on the last training course, but we are considering how to both make it clear what the course involves and how to provide additional support to healthcare professionals who find simulation very challenging when we put on future VOICE training courses. Kate Sartain commented that it was very clear that the inter-professional mixed training groups were obviously of value to the participants and the ambience of the day allowed for supportive conversations. Kate Sartain also raised the issue of healthcare professionals who do not have English as their first language. Consideration of further research into this matter is vital

if this training is to be of value to the diverse NHS workforce. Kate Sartain also has suggested that in time further research will be required to design a training package suitable for the workforce in the community particularly in care homes.

Evaluation of the training

We are aware of recently published guidance from Alzheimer's Europe that it is no longer acceptable to not include people living with dementia in research.¹⁸³ We accept this recommendation, whilst being aware of the challenges this represents. However, we felt going forward we need to include people with dementia into our research and did this for the final stage of our research, the evaluation of the training.

We wanted to know whether healthcare professionals would remain as person-centred after training as before. To do this, we convened a group of seven service users. These included two people with early dementia and five carers. We organised five half-day sessions (with refreshments and lunch provided) and asked the service-users, following training, to rate the before- and after- evaluation simulations using the Emotional Tone Rating Scale.¹⁷⁷ Feedback from the group at the end was that they found the exercise stimulating and interesting and they very much enjoyed being included in the research.

Dissemination

Our dissemination plans are still ongoing. However, our PPI co-applicant Kate Sartain has presented a poster at the Alzheimer's Europe conference (Berlin, October 2017) on service-user involvement in research. Kate Sartain made the opening address at our VOICE dissemination conference (Nottingham, October 2017). She is supporting the work we are doing to develop future VOICE study courses.

PPI value highly the positive effect this training will have on the ability of healthcare professionals to provide skilled care to people living with dementia in an acute setting, removing much frustration and anxiety. PPI representatives believe dissemination is essential for the well-being of patient, their carers and healthcare professionals.

CHAPTER 9: DISCUSSION

Summary of findings

We video-recorded 41 encounters between healthcare professionals and people living with dementia in the acute hospital. We used conversation analysis to understand what worked, and what did not work, in real, practical settings. Encounters followed a recognisable phase structure: opening, purpose, information gathering, business and closing, although not all encounters contained all elements. Most of these phases were trouble-free in interactional terms. Two phases were consistently, and strikingly, associated with problems: requests (and consequent refusals) and closings. The manner in which things were said had a major influence on acceptance or refusal. Unusually for health care communication, requests were often met with an unmitigated refusal ('no'). Skilled healthcare professionals used several devices in order to gain the agreement of the patients living with dementia: they asked more directly, they raised entitlement (authority to ask), and lowered contingency (reduced the difficulty), by making the task sound smaller or shorter, asking the person living with dementia to 'try', offering to help, or proposing collaborative action (do it together). Closings were often prolonged, with the person living with dementia not recognising the usual verbal or body language cues that the encounter was coming to an end, and often reopening the conversation. More satisfactory closings resulted when the end of the task was declared, a specific arrangement made for what was to happen next, and body language that was congruent with the message, or 'closing idioms' used.

These original, and 'teachable', findings, together with evidence from a systematic review, were used as the basis for a new communication training course for experienced healthcare professionals. An intervention development group was convened including researchers, clinicians, educationalists (and in particular people with expertise in simulation) and PPI. The course comprised two days, one month apart, and was grounded in experiential learning theory. It used didactic learning, video clips and transcripts from real life, simulation, and reflection on practice. We were concerned to draw on, and integrate, healthcare professionals' prior knowledge and experience, and to ensure that the principles of person-centred care were adhered to. As preparation, we asked trainees to complete three brief

electronic-learning packages ('Reusable Learning Objects', RLO), on dementia, basic communication and person-centred care. In addition, we developed a new RLO, on requests and refusals, which we asked trainees to undertake before the second session, as revision. An RLO on closings is in preparation.

A training programme was devised, and manualised, and actors were trained to credibly emulate people living with dementia, with particular regard to refusal and extended closings. Courses comprised six to nine participants, with two trainers/facilitators. Simulations took place in groups of three to five, and allowed for the action to be stopped, in order to ask advice or try different strategies, or re-run. Peers, facilitators and simulators all fed-back on performance. A pilot course was run with experienced healthcare professionals, all of whom had an interest in education, and adjustments were made based on the experience.

We ran six courses in two hospitals, involving 45 participants, 44 of whom returned for the second day. Trainees were interdisciplinary, with nurses, doctors and allied health professionals taking part alongside each other. We undertook a rigorous analysis of the education, including three of Kirkpatrick's four levels of educational effectiveness. These included feedback on the course, its usefulness, and the methods employed; tests of knowledge and confidence in a before-and-after design; and an assessment of whether the course changed communication behaviours. This was done by asking trainees to perform an assessment task with a simulator before and after the training, which was video-recorded, in a cross-over design. Videos were blind-rated by two independent speech and language therapists against a checklist of behaviours. A panel of PPI representatives, including two people living with dementia, rated the test videos for 'emotional tone' as a measure of person-centredness. Trainees were asked if they were using the techniques taught and if they were useful in practice, one month after the course. An independent occupational psychologist interviewed a sample of trainees and managers to investigate facilitators, barriers and value placed on the training using a thematic analysis.

The course rated very highly. Knowledge and confidence both improved, statistically significantly, despite fairly high baseline scores. Some aspects of communication behaviour were more commonly observed in the test videos after the training than before. Emotional tone was mostly unchanged (that is, communication had not become more, or less, person-

centred), although videos were rated as being slightly less warm and slightly more controlling after training. Techniques were remembered, used, and found useful one month after the training. The interviews found that the course was very well-received, validated all the decisions made during intervention development, emphasised the value of simulation, interdisciplinary learning, reflection and the two-day structure. Some participants found simulation uncomfortable, but almost all recognised its educational value. Learning was regularly used in daily practice, and was, to an extent, cascaded to other staff, or used as a framework in teaching other staff. Length, cost and lack of consideration of communication during aggressive episodes were considered weaknesses. Wider dissemination was supported.

Strengths and limitations

The teaching on the VOICE training course was grounded in empirical research. In the field of communication training this is, perhaps surprisingly, uncommon. We used a rigorous socio-linguistic method, conversation analysis, applied to real encounters between healthcare professionals and people living with dementia, to identify the structure of interactions, where problems arose, how skilled practitioners tried to overcome these, what worked in practice, and what we considered to be 'teachable'. The analysis uncovered original and interesting new linguistic findings, but was fundamentally directed at what might be taught to fellow practitioners, and practiced both with simulators and in everyday care.

Dementia communication has rarely been studied in the challenging environment of the acute hospital. CA has been increasingly used to understand healthcare consultation, but most communication teaching is based on experience, custom and practice. The overriding strength of using CA is that it studies what participants do in practice, not what they think, or report that they do. This can also mean identifying and making explicit behaviours that the individual does not necessarily consciously know they are doing. By studying skilled practitioners we could identify both difficulties, and successes, and how difficulties or breakdowns were overcome.

Intervention development was multi-disciplinary and inter-professional, including experienced clinical educators, patient and public involvement, clinicians, and experts in

simulation. Simulation has been used in teaching both consultation and practical skills, including scenarios involving people living with dementia,⁸⁰ and difficult conversations at the end-of-life. Clinical practice is characterised by the need to ‘think on your feet’, responding in real time to a variety of information of unknown veracity, coloured by emotions and reactions both in the patient and the practitioner. Whilst some approaches, techniques and ‘tricks of the trade’ can be learnt or refined through experience, the opportunity to practice new skills and gain feedback is reported as invaluable by trainees.

Simulators, actors trained to work in clinical education, can provide consistency and challenge, and feedback either in or out of role.^{184,185} In some settings, people living with a condition can take part in education, such as aphasia after a stroke. However, this is difficult for people living with dementia, especially those with moderate or severe impairment when communication problems are most troublesome. Portraying a person living with dementia is not easy, with a risk of stereotyping or caricaturing, or simply producing chaotic responses. In this study, we carefully developed training for simulators, based on real cases we had observed, to enable a credible simulation experience.

We used mixed training methods, including didactic information giving (lectures, PowerPoint presentation), and made extensive use of video clips, or transcripts, of real encounters. We also used reflection on practice, and considered how to incorporate previously-mastered skills and attributes, especially paying attention to understanding and maintaining person-centredness. We refined the training course based on a pilot course, to which we invited experienced practitioners who themselves had a role or interest in clinical education, allowing an informed educationalist’s view.

Education and training initiatives are often evaluated quite crudely. The opportunity to do true experimental studies is unusual. Training can be evaluated at the levels of reaction, knowledge, behaviour, and impact on outcomes.¹⁷² We used questionnaires to study trainees’ perceptions of training methods, the role of simulation, and the usefulness of the knowledge gained. We used questionnaires delivered before- and after-training to assess changes in knowledge and confidence. Innovatively, we used videoed simulations before- and after- the training to assess changes in communication behaviour. Two specialist speech and language therapist raters, blind to whether the simulation was before or after training, used a checklist to identify the use of objectively identifiable communication behaviours,

using a cross-over design to control for differences in the nature and difficulty of the set task.

The interactions between people living with dementia and healthcare professionals that we videoed had some limitations, largely determined by the need to gain consent or agreement from participants, and to set up recording equipment in advance, but were otherwise unstaged. All were initiated by the healthcare professional; we excluded interactions initiated by the patient. Healthcare professionals were all willing to be videoed, and we targeted healthcare professionals whom peers reckoned were good communicators or 'good with people living with dementia'. This was appropriate because we were looking to see what worked in real-life practice. Less confident healthcare professionals, including some with English as a second language, were reluctant to take part. Interactions were typically brief (two-30 minutes). Analysis could not take into account what previous relationship the healthcare professional had with the patient, nor what previous knowledge they were working with. It is possible that healthcare professionals changed their behaviour as they were being studied, although it is generally considered impossible to 'fake' the sorts of behaviour that are ascertained in CA. Families and other carers are especially important in the support of people living with dementia in hospitals; for the most part we did not include 'triadic' conversations, as these had a very different dynamic, and were difficult to film in a way suitable for CA, including all participants' body language and expression. Many communication problems arise during personal and intimate care: we did not film these to respect patients' privacy and dignity.

CA is detailed and time-consuming. Within the resources and timeframe available to the study not all themes or foci of interest could be fully analysed. CA, like any qualitative analysis, is to some extent subjective, or at risk of preconception or bias. To overcome this regular supervision and group data meetings were held, including experienced conversation analysts. Data and proposed interpretations were also presented and discussed at regional and national data sharing meetings, a common practice amongst conversation analysts.

The structure of the training intervention was influenced by our previous experiences of learning and teaching communication skills, especially in aphasia after a stroke, and end-of-life care. We were also influenced by our experiences researching and teaching person-centred dementia care.^{6,32}

Use of simulation can be controversial, particularly the issue of authenticity, and relatively expensive. We paid particular attention to authenticity in the training of actors.

The evaluation was based on six repetitions of the course. We invited 'experienced' practitioners to take part, and in practice this was self-defined. Participants included senior nurses with leadership roles in dementia education and service development, staff nurses from older persons and surgical wards, allied health professionals including occupational therapists, physiotherapists, speech and language therapists, an orthotist, and junior and more senior doctors from geriatric and general medical specialties. The course was free, and therefore attractive to staff for whom access to advanced education was limited, but participants were enthusiastic volunteers. These enthusiasts or 'champions' are an important training target: they will be role-models, will direct or supervise difficult situations in clinical areas, and will teach, informally or formally. We previously found evidence that even experienced practitioners lacked confidence in working with people living with dementia, despite this being an important part of their jobs.²⁵

Only three participants had English as a second language. Whilst doctors were well-used to simulation as a training medium, this was unfamiliar for other disciplines, and seen as challenging or threatening for some. Participants were told that they were expected to undertake the evaluation tasks (questionnaires and videoed simulation) in order to be accepted onto the course, and this may have been off-putting. Almost the first activity undertaken by participants was a fairly challenging, videoed, assessment simulation without feedback. The emotional tone rating of assessment videos was administered by a group of PPI contributors, including two people living with dementia. The scale is simple, but used words that are open to interpretation. Interrater reliability was poor (there was poor agreement between different raters about whether a feature was evident in the interaction or not).

We have evidence (from the assessment simulations) that the VOICE training changed participants' strategies for closing encounters with people living with dementia, but not their requesting behaviours. We do not have objective evidence of changed behaviours in real-life clinical practice, nor any impact on wellbeing of patients. This requires further research with an implementation focus, involving the systematic observation of trained staff carrying out routine healthcare encounters. Our trainees were a self-selecting group, who

demonstrated an interest in communication, which may explain why they appeared to have high levels of skill in some domains at the outset. This limits the generalisability of our findings, and may explain why requesting behaviours remained unchanged. Trainees were using the strategies of raising entitlement and lowering contingency already, and while the course gave them a new vocabulary with which to reflect on this, it did not result in significantly changed behaviour since they were intuitively doing it routinely. For trainees finding requesting and subsequent refusals from people living with dementia a challenge, our methods may have resulted in objective change in this regard as well. The interviews also pointed to the fact that some trainees found the concepts of entitlement and contingency confusing, which may have also been a factor in the lack of objective change in this trained behaviour. Direct observation of taught strategies being used in real-life clinical practice will also allow us to contextualise positive reports from trainees when evaluating the course and reflecting on strategy use. We acknowledge that trainees may have been subject to social desirability bias when reporting their views to the team, mitigated to an extent through the use of an independent occupational psychologist in undertaking interviews.

The use of simulation in evaluation and testing has been criticised (for example: in employment procedures, assessing competencies, and examinations).^{136,186} The main problem is the tendency to perform to the teaching, learning goals, or expectations, in a way that would not happen in real clinical practice; analogous to exaggerated looking in the mirror during a driving test. For example, simulators will be given brief background information and limited key information. The assessment 'game' becomes for the trainee to 'extract' this information, and verbal devices for enabling this soon become common knowledge, thereby diminishing the validity of the assessment. In a learning situation this is not necessarily a problem; a skill is practiced with a reactive human partner, enabling the interaction to be experienced, rather than just contemplated or imagined, and feedback given. In our assessment of behaviour this could have occurred: before the training the task was undertaken without knowing specifically what we were looking for; after the training, the behaviours we were teaching had been made clear. In educational practice, the ideal assessment is clearly mapped to learning goals, making the argument somewhat

tautologous. To overcome this we prompted an overt link to what healthcare professionals did in clinical practice, and asked for reflection on this in writing, then in a discussion group.

We did not study the impact of communication training on health outcomes for patients. This would require a very large scale trial, possibly cluster randomised, with large-scale training of involved staff members. This would be very difficult to do logistically, and is rarely reported for communication skills training. Instead, we interviewed trainees and managers about the usefulness of what they had learned, whether they had used it, the barriers and facilitators to use in practice, and the priority given to training in communication with people living with dementia by service leaders.

Context

In 2011 Tadd et al published their report 'Dignity in Practice' and stated: 'a key message echoed by staff at all levels in the organisations involved in this study was that the acute hospital is not the 'right place' for older people. The prevalence of this view has resulted in the physical environment, staff skills and education and organisational processes acting as barriers to delivering dignified care to older people'.¹⁸⁷

People living with dementia, and other vulnerable frail older people, comprise core NHS acute and general hospital users. Two-thirds of hospital users are over 70 years old. Half of emergency admissions of people over 70 have cognitive impairment (dementia, delirium, or most commonly delirium complicating dementia); 40% have dementia.^{10,188} Almost half of people who break their hips have dementia, whilst others have delirium, or develop it post-operatively.¹⁸⁹ People living with dementia are complex, and are disproportionately represented amongst those with very prolonged hospital stays. Health policy rightly promotes ongoing attempts to minimise the need for hospital admission, and to expedite discharge for those who are admitted. However, most admissions are for legitimate medical conditions or injuries, and the delivery of necessary assessment, treatment or future care planning.⁴ Caring for people living with dementia is, and will remain, an important part of what acute general hospitals do.

Hospitals are well-known to be difficult and challenging environments for people living with dementia. This is partly because of the need to focus on the efficient and safe delivery of effective physical healthcare, but also reflects a failure to make the 'reasonable adjustments' to environment, staffing, training and processes required to make services as good as they can be for people living with dementia.^{25,187} Staff often recognise, and are frustrated by, lack of appropriate knowledge and skills, and identify communication as a key topic requiring further training.^{2,25}

Communication difficulties are well-recognised as a problem for people living with dementia. This includes the specific language skills of understanding and expression, which are compounded by poor memory, impaired mental processing or reasoning, and problems in recognition, planning, initiation and social control. In addition, co-morbid problems with hearing or vision, mouth or teeth problems, delirium, insomnia and pain also make communication more difficult. A noisy and busy environment can be overstimulating, and assessment processes involving multiple new and unfamiliar faces and locations, and repeated questioning can be overwhelming.

Attempts to improve staff training and hospital experience for people living with dementia emphasise communication. Individualising care, seeing the perspective of the person living with dementia, building relationships, promoting inclusion and providing purposeful activities are key components of person-centred dementia care, and implicitly require good communication. Misunderstanding or misinterpretation of instructions or actions, especially when delivering personal or intimate care, or ensuring safety, are important drivers of distress and behaviours indicating distress. Some advice is uncontentious: optimising hearing (for example, by ensuring hearing aids are working), introducing yourself, and saying what you are doing. Skilled practitioners, especially from mental health and palliative care professional backgrounds, have developed considerable expertise, although they sometimes struggle to articulate exactly what they are doing, making teaching or sharing skills difficult. Little of what is promoted has derived from research using rigorous methods, although much clearly 'works'.¹⁷⁴

Most published evaluation of communication skills training for people living with dementia has taken place in care homes, and has targeted nurses and unregistered care workers. Brief medical student teaching, using simulation, has been reported, and was successful, although

in some cases it only made students more aware of their limited skills.⁸⁰ Attitudes towards communication with people living with dementia have been studied, and a framework for communication has been published based on empirical research,¹⁹⁰ but the effectiveness of implementation has not been reported.

Interpretation

Our results draw on CA findings from other settings; the structure of encounters was similar to that previously reported,¹⁰⁰ and the roles of increasing 'entitlement' and reducing 'contingencies' to gain agreement have been described before.¹⁰⁵ The value of 'direct imperatives' has also been reported.¹⁹² The findings 'made sense' to experienced practitioners, who had not previously had the concepts or language to describe what they were doing.

CA is strictly an empirical methodology: it describes and makes explicit what was done and what the response was, and avoids speculating about motivation, or mechanisms of action. Interpretation therefore necessarily goes beyond CA.

Dementia (and its related complication, delirium) causes cognitive (or neuropsychological) impairments, including language, information-processing and reasoning. Healthcare professionals strive to be empathetic and polite. Many are aware of the power imbalance between patient and professional, and the disempowering effect of the unfamiliar hospital environment, care being delivered by strangers, and the unusual or threatening nature of many healthcare assessments and procedures (including personal and intimate care). Staff adapt their language to mitigate this, often becoming deferential (showing 'low entitlement') and offering choices that imply the possibility of refusal. This is also common in everyday English language and culture. In closing an interaction we routinely rely on the giving and registration of cues that the conversation is coming to an end, but these can be subtle, in order to try not to give offence.

In order to decipher the 'message' from amongst the social and cultural etiquette requires understanding, processing, perception and insight, processes with which a person living with dementia is likely to struggle. Person-centred dementia care philosophy holds that people

living with dementia require an 'enriched' or 'enhanced' social environment, in which the healthcare professional takes greater responsibility for making the relationship, even in the face of reluctance or resistance. Adapting communication to make it easier for the person living with dementia can be seen as a central part of this. The person living with dementia does not benefit from social etiquette if meaning is unclear, ambiguous, open to misinterpretation, invites refusal, or results in a necessary medical or personal care task being neglected, or argued over. The person living with dementia needs to feel satisfied with communication, avoiding, where possible, contradiction or argument. Reaching swift and unambiguous agreement is a virtue.

The risk is that language can become unduly coercive, or fails to respect the identity or vulnerability of the person living with dementia. In many ways all language carries this risk; the lines between agreement, persuasion and deception are subtle. Rhetoric, marketing, propaganda, and political messaging all deliberately attempt to persuade or change opinion.¹⁹³ CA has an overtly ethical dimension: findings can be used to promote good, or misused and result in harm.¹²³ The importance of professional, ethical and person-centred practice is undiminished by learning what language can be used to gain agreement or end an encounter.

We were aware of this potential problem, emphasised it in teaching, and used an independent rating of 'emotional tone' of assessment videos before and after training (as a proxy for person-centeredness). This revealed some tension between effective communication and person-centredness, in that independent ratings suggested that communication was slightly less warm and more controlling after training. However, we do not believe that our findings reflect an incompatibility between person-centred care and effective communication. Several caveats are worth noting in this regard. How a conversation 'sounds' (the basis for rating emotional tone) is not necessarily a reflection of its person-centredness. For example, a highly-entitled, direct request may promote inclusion and occupation, and does not necessarily diminish identity. Secondly, brief video clips offer little information about the context or necessity of a request, nor what occurred before or after. Thirdly, the inter-rater reliability of assessments was poor, suggesting that different people see different things in an interaction.

We undertook this CA-based study of dementia care communication precisely because most-best practice guidelines in this area are not underpinned by objective research. Furthermore, it is unclear how person-centred care is operationalised in terms of communication behaviours during health encounters with a person living with dementia (or during healthcare encounters generally). We have found evidence that some of the more common strategies for enacting person-centred care (like asking ‘is there anything else I can help you with?’) may be inappropriate for people living with dementia as a result of their communicative and cognitive difficulties.

We (and our trainees) concluded that our training changed knowledge, skills and behaviour, and was useful to them in diverse roles in everyday frontline clinical practice (and indeed may be useful for patients who are cognitively intact). Healthcare professionals already have considerable knowledge and skills, technical and discipline-specific, but also generic and interpersonal. Many experienced in working with people living with dementia are at least familiar with the ideas behind good communication and person-centred care. The key elements of our educational endeavour were the provision of new knowledge, a framework for understanding why communication can break down, the integration of prior skills and attributes, the opportunity to rehearse, practice and have feedback on communication behaviours, reflect on communication encounters between the two days of the course, and progression to more challenging simulation on the second day.

One feature that was commented upon by trainees was the value of interdisciplinary learning. Different disciplines may not regularly observe how others communicate; watching peers and colleagues communicate in simulations proved as valuable as direct experiential learning. Another particular feature valued by trainees was the use of real life video-clips or transcripts illustrating learning points, both positive and negative. These carried especial validity (they were, after all, real), were often memorable, but also illustrated real-life complexity, difficulties, failures, and the sense of negotiation often required to gain agreement, which is difficult to encapsulate in writing.

A further effect of making explicit good communication practice is the engendering of ‘confidence in competence’. Griffiths et al identified that even when healthcare professionals were doing their best, and delivering care well in difficult circumstances, they were often unsure, or frustrated that they were not doing well enough: they lacked

‘confidence in competence’.²⁵ Healthcare professionals’ knowledge that they are doing the right thing is important for job satisfaction and avoidance of stress and burnout.

The VOICE course was mapped onto the Skills for Health – Dementia Core Skills Education and Training Framework Tier 3 (expert level) for communication, interaction and behaviour in dementia care and for person-centred dementia care.³³ This level defines the expectations of expert practitioners. There is little current provision in the UK for this level of training, and identifying such training is a current Health Education England priority. We have assessed the course using the Dementia Training Design and Delivery Audit Tool (DeTDAT), which assesses how well dementia training and education packages for hospital staff meet evidence-based good practice criteria. The VOICE course met all the requirements of this tool.^{174,191}

Implications

Hospitals and other care settings should make further ‘reasonable adjustments’ to ensure that staff are prepared to look after people living with dementia. Many factors influence quality of care: the UK Care Quality Commission has characterised this as requiring leadership, attitudes, skills and resources.¹² Staff skills alone are not enough if staff numbers and time, the physical (and auditory) environment, processes and priorities represent barriers to dignified and person-centred care. Leadership requires both a commitment to training, and to enabling application of skills and knowledge in practice. Training can influence attitudes: showing that things can be done, and done well, helps avoid a tendency to nihilism. Good communication helps support identity, inclusion and occupation, which is more satisfying and defends against objectification and infantilisation.

Teaching adequate staff skills, however, remains central to the provision of good care. Care of people with dementia is complex, and can be difficult. Poor communication results in missed therapeutic opportunities, mistakes, distress, denial of choice or autonomy, and poor decisions. Distress, or unexpressed need, can result in difficult behaviours. Creating comforting relationships is the key to enhancing well-being, and improving satisfaction. Unless senior staff understand and can role-model best practice, less experienced staff and students will not be adequately supported.

The main barriers to widespread implementation are expense and the need to train actors. The cost is modest in commercial training terms (full economic cost about £300-350 per person, 2017 value), but healthcare professionals often have little or no access to funds for training. Incorporation into undergraduate or postgraduate training structures (such as Foundation Programme or Higher Specialist Medical Training for doctors, or Learning Beyond Registration for other healthcare professionals) would provide another avenue. The most likely niche will be as a fairly centralised resource for specialist practitioners. Given the importance of older people with dementia in hospitals, the numbers of people requiring the skills that our course teaches is very considerable, however.

In order to train actors in credible and effective simulation of people living with dementia we are preparing a manual and supporting materials (including video clips and the 22-minute documentary '*Today is Monday*' about people living with dementia and the staff who care for them in an acute hospital).¹⁹⁴

In addition, we have developed two brief electronic-learning multimedia packages ('reusable learning objects', RLOs),¹⁵⁹ which support the training, but cannot replace the face-to-face content.

We are also exploring shorter packages, to minimise cost.

Further research can be done from within the corpus of video-data collected for this study, and to explore related questions (including the enactment of person-centred care) and settings (such as care homes). The CA-based methodology is powerful and generates highly applicable practical output, but is labour-intensive, and requires careful consideration of consent, data security and re-use of material.¹⁹⁵ However, the methodology provides great opportunities for further understanding communication in healthcare.

We undertook a feasibility or proof of concept study. In the face of known and acknowledged problems, it is likely *a priori* that teaching communication will be worthwhile for this patient group in this setting. A large randomised controlled trial to demonstrate benefit in terms of patient-level healthcare outcomes would be unfeasibly large and expensive, and would be unprecedented in the field of communication training. Our evaluation study may be considered sufficiently 'positive' to support implementation and roll-out without further large-scale evaluation. However, further research should be done to

adapt or develop training for a wider body of staff, and to evaluate its effectiveness. This might include unregistered practitioners (such as healthcare, therapy or nursing assistants), all registered staff who work with people living with dementia (who may be less skilled initially, more unwilling to learn, and engage less well in training than the volunteers we studied), or staff with English as a second or additional language.

Development of communication training and its evaluation is also required for staff who work in care homes, domiciliary care staff, and for family carers. The interplay between communication skills and person-centred care requires further exploration. A wider range of communication encounters (beyond healthcare practitioner-initiated requests), and how they are managed, might be studied, although the practicalities of CA might make this difficult (gaining agreement in advance and setting up a camera).

The ultimate goal of staff training is to improve the quality or efficacy of care. Research methods to determine the impact of communication practices on patient outcomes, such as health status, wellbeing or distress, or healthcare-related metrics such as safety, discharge destination or length of stay, are poorly developed, and require attention. Non-participant observation may be required. Similar, from an organisational perspective, enablers and barriers to implementation require investigation, including features such as 'critical mass' of trained staff, leadership and culture, and competing priorities, and how such conflicts or trade-offs are best managed.

Traditional methods of teaching communication skills for people living with dementia in hospital have been inadequate. We have drawn on multiple different pedagogic approaches to develop an innovative and effective training course, teaching evidence-based key practical knowledge.

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Rebecca O'Brien: study conception, undertook pilot work, wrote funding application, systematic review, undertook ethics application, recruited participants, collected and analysed the video data, designed the communication skills training intervention, designed the simulations and trained the simulators, delivered the communication skills training course, designed the evaluation, including the rating of simulation video data, drafted the interventions development chapter, drafted the conversation analysis chapter, sat on management group, approved final report, undertook dissemination.

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DISCLAIMER

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JOURNAL OUTPUTS TO DATE

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DATA SHARING

Due to the nature of the data collected and conditions attached to ethical approval, there are limited data available for wider use. All queries should be submitted to the corresponding author in the first instance.

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APPENDICES

Appendix 1: Conversation Analysis transcription notation

PAT	patient
HCP	healthcare professional
[look] [it's]	square brackets show where different speakers overlap
(PAT moves glass)	text in single brackets gives a description of what people are doing
(it)	single brackets indicate a word/phrase that is hard to understand
(2.5)	a number in single brackets denotes a pause in seconds, e.g. 2.5 seconds
oh::	colons indicate a lengthening of the sound or syllable they follow
?	a question mark indicates a rising tone
.	a full stop indicates a falling tone
,	a comma indicates a continuing tone, as if a speaker will say more
=	an equals sign marks where there is no hearable gap between two words
but-	a single dash indicates a word or sound that is abruptly cut off
I ↑need	an upward arrow marks a noticeable upward shift in tone
<u>mouth</u>	underlining indicates emphasis
°°no°°	degree signs indicate quiet speech, two or more indicate very quiet speech
WHY	capital letters indicate loud speech
>a bit of a<	lesser than/greater than signs indicate sections of speech that are faster
hhh	a sigh
.hh	an in-breath

Appendix 2: Dementia Communication Knowledge Test

No.	Question
1	When communicating with people with dementia it's best to speak: <ul style="list-style-type: none"> a) Fast and clearly b) Slowly and clearly c) At a normal rate and clearly
2	When approaching a patient with dementia to carry out a healthcare task the best introduction would be: <ul style="list-style-type: none"> a) Hello Margaret. Do you remember me? b) Hello Margaret. I'm Diane, one of the doctors here. I've come to see if you're getting better. c) Hello Margaret. Can I check your blood pressure?
3	Which of these communication strategies might help when communicating with someone with dementia: <ul style="list-style-type: none"> A). Using gestures, objects or pictures to show what you mean B). Using metaphors to explain things. C). Touching the part of the body you are talking about. D). Using short sentences E). Using one step instructions <ul style="list-style-type: none"> a) A, B, C, D, E b) A, C, D, E c) A, B, D, E
4	If a patient with dementia is distracted, what is the best way to get their attention so you can talk with them? <ul style="list-style-type: none"> a) Use their name b) Speak loudly c) Ask the relative rather than the patient.
5	Repeating back what you understand of what a patient just said to you, when you don't completely understand them, is likely to be: <ul style="list-style-type: none"> a) A useful way of indicating you are listening and trying to understand. b) Confusing for someone with dementia c) Annoying for someone with dementia.
6	When requesting a particular patient with dementia takes an important medication, which you know they are often reluctant to do, it may help to: <ul style="list-style-type: none"> a) Frame the request as a question about their willingness to do it, such as 'Joan, do you want to take your tablet now?' b) Frame the request as a very polite question, such as 'Joan, I was wondering if you might possibly want to take your tablets now?' c) Frame the request as a statement of what you are proposing will happen, with a checking question at the end, such as 'Joan, I've brought your tablets for you to take now. Is that okay?'
7	When a patient says or communicates 'no' to doing something you have asked (and which the team and family thinks is important and in their best interest), which of the following approaches would be <u>unhelpful</u> ? <ul style="list-style-type: none"> a) Keep repeating the request in the same way, slowly and clearly, until they agree b) Make the task sound less demanding, by reducing the size or duration of the task eg. 'just for a minute' c) Say that you need them to do it e.g. 'I need you to take these, for your diabetes'
8	Towards the end of your session, if you ask the patient an open question like 'Is there anything else you want to ask me?' this is likely to lead to the patient with dementia: <ul style="list-style-type: none"> a) being silent b) being confused about what they are expected to say and not reporting any healthcare concerns c) making some attempt to share their healthcare concerns or questions with you
9	To indicate to the patient that the session is about to finish, in a way that feels respectful, which of the following strategies/statements would work best? <ul style="list-style-type: none"> a) I'll see you soon b) I'll see you tomorrow morning

No.	Question
	c) You're doing really well, and there's nothing to worry about
10	As you are ending a session with a patient on the ward, if you stand up, clear away your equipment and pull the curtains back, this is likely to: a) appear rude to the patient with dementia b) make no difference to the patient with dementia as they won't notice or understand these signals c) help the patient with dementia understand that you are about to leave

Appendix 3: Communication behaviour rating forms - requests.

<u>VOICE COMMUNICATION PRACTICES CHECKLIST: FOR HEALTHCARE PROFESSIONAL REQUESTING IN THE FACE OF PATIENT RELUCTANCE</u>				
<u>RATING STARTED AT (TIME CODE):</u>		<u>RATING FINISHED AT (TIME CODE):</u>		
<u>COMMUNICATION PRACTICE</u>	<u>EXEMPLARS</u>	<u>TIME CODE OF INITIAL REQUEST</u>	<u>TIME CODE OF FURTHER REQUESTS</u>	<u>QUOTES/ QUERIES/ COMMENTS/'LOTS'</u>
High entitlement request: proposal	<u>Let's:</u> So let's have another go; Let's try a yoghurt.			
High entitlement request: announcing future action	<u>Going to/ Gonna/ we'll:</u> We're just gonna use this bathroom here; I'm just gonna pop this on; We'll give you a quick shave.			
High entitlement request: statement of need	<u>I need you to; I need to; You need to</u> I need to put a bandage on your leg; You need to wake up a minute; You need to bring that forward.			
High entitlement request: direct instruction	Take a step; Have a little drink;			
High entitlement request softened eg. with checking / permission seeking question	<u>Is that okay? Alright? Okay?</u> Then we'll give your mouth a little wipe- is that okay? We're going in this bathroom here- alright?			NB. 'Please' may act in this way.

High entitlement: Other (please give quote)	Egs. Forced alternatives which presume compliance- 'Which finger shall I use?' Format 'I think it would..'			
Lowering contingencies: Reduces the size or duration of task	<u>Just, little, pop, quick, for a minute:</u> Just a little bit; I need to pop this on your finger; if you let me have a quick listen; it'll just be here for a minute.			
Lowering contingencies: Request includes 'try'	<u>Try:</u> Shall we give it a try then? Let's try a drink.			
Lowering contingencies: Explicit offer to help	Can I help? What about if I give you a hand?			
Lowering contingencies: Frame accurately as collaborative or joint action	<u>We; let's; for me:</u> We're going in this way; Shall we go for a walk; Let's try a yoghurt; Have a drink for me.			
State the action explicitly, (not just stating the reason for the action)	Can we try and have a stand up then; What I want to do is give you a shave.			
Action required of patient is not stated explicitly	I was just wondering if we could relieve the pressure on your bottom? Can I take your blood pressure?			

Appendix 4: Communication behaviour rating forms - closings.

<u>VOICE COMMUNICATION PRACTICES CHECKLIST: FOR CLOSING OF ENCOUNTER</u>				
RATING STARTED AT (TIME CODE):		RATING FINISHED AT (TIME CODE):		TOTAL TIME CODED:
<u>COMMUNICATION PRACTICE DURING CLOSING PHASE</u>	<u>EXEMPLARS</u>	<u>TICK IF PRESENT</u>	<u>TIME CODE</u>	<u>QUOTES/ QUERIES/ COMMENTS</u>
Vague arrangement at closing	See you soon ; See you around; some people will be around (without specific arrangement first)			
Specific closing arrangement	See you tomorrow; the nurse will be here in five minutes; I'll go and get that cup of tea now.			
Notification ahead of final activity	Before I go... (then announces a final task or action or question)			
Announcing completion of final activity	That's us all done; that's it, got what we needed.			
Announcing explicit intention to leave	So I'm gonna go now.			
Non-verbal actions supporting verbal closing (body position, furniture, equipment)	Re-positioning table, doll, blankets; tidying equipment; breaking eye contact.			
Closing idiom or saying	All done and dusted; I'll leave you be; We'll keep a close eye on things; You take care.			

'Is there anything else?' type open question during closing	Anything you want to ask me before I go? Do you want a hand with anything before I go? Is there anything I can help with?			
Mismatch between nonverbal and verbal actions during closing	Eg. Healthcare professional gives verbal indications of closing but doesn't make physical moves to indicate closing/leaving; healthcare professional opens new lines of enquiry (verbal) whilst walking away (non verbal).			<i>Don't include here activities that happen after a 'before I go..' announcement, as this was a trainable.</i>
CLOSING 'OTHER': State whether facilitator or barrier to closing; give quote				<i>No data classed here as 'other' will be counted.</i>

Appendix 5: Interview schedule

Work Package 3 Intervention Testing: Interview Guide

Introduction:

- Introduce interviewer
- Explain the aims and purpose of the study and give a brief description of the interview structure.
- Ensure Participants have read the information sheet and understand that participation is voluntary and they are free to withdraw at any time
- Discuss digital recording of the interview and confidentiality
- Opportunity for participant to ask any question
- Complete the consent form and give a copy to participant, or obtain verbal consent and record it

Topics, Questions and Prompts: Healthcare Professionals:

- Background details
 - What is your current job role
 - What type of ward do you work on?
 - How long have you worked in that role/that setting?
- Enrolment on the course
 - How did you first hear about the training?
 - Could you immediately see how it could be of use in your work?
- Experience of the programme
 - How did you find the training generally?
 - E.g. the venue, organisation, pace, balance of learning activities
 - What were the most useful parts of the training? And why?
 - What were the least useful? And why?
- Overall perceptions of effectiveness
 - Do you think this training is an effective way to teach these specialist communication skills to Healthcare Professionals?
 - What other approaches to training do you think could be used?
- Transferring learning into practice
 - Since the training, which of the techniques/lessons from the training have you most easily adopted into your everyday job role?

- What factors have facilitated this?
- Are there any techniques/lessons that you've not been able to use in your job?
- What factors have prevented this?

Topics, Questions and Prompts: Line Managers/Ward Managers

- Background details
 - What is your current job role
 - What type of ward do you work on?
 - How long have you worked in that role/that setting?
- Enrolment on the course
 - How did Health Professionals that you manage/on your ward become enrolled on the programme?
 - How many healthcare professionals that you manage/on your ward attended the training?
- Perceived impact on healthcare professional practice
 - What have you heard about the contents of the training and what healthcare professionals learnt?
 - Have you noticed any changes in how healthcare professionals communicate with patients as a result of attending the course
 - Have you noticed any changes in patient experience as a result?
- The barriers and facilitators to successful implementation
 - Are there any factors that have facilitated healthcare professionals in changing how they communicate with people living with dementia on their job?
 - Are there any factors that have prevented healthcare professionals changing practice?

In case of distress:

If the participant becomes distressed during the interview, ask the participant if they would like to stop the interview and offer the participant the contact number for the staff counselling service for their organisation.

If a participant reveals information which is of concern and may need reporting i.e. potential risks to another person or to themselves, or criminal behaviour, you should discuss this with the PI at the earliest opportunity and where appropriate report accordingly.

Short Debrief:

The interviewer will now explain the interview is now officially over and there are no more questions. They will state when the project will be ending and that if after this date, it gets published that we will let them know. The volunteers will be thanked for their participation, and asked if they would like to have a more in depth debrief, for example if what has been discussed has made them feel particularly emotional. Even if they decline the debrief at the time, it will be reinforced that we can arrange for one if on reflection they feel they would like to talk to someone. The interviewer will ensure that participants are not left distressed, and we can signpost them to individuals with expertise in this topic area if they require extra support.