

A staff training intervention to improve communication between people living with dementia and health-care professionals in hospital: the VOICE mixed-methods development and evaluation study

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Scientific summary

The VOICE mixed-methods study

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Scientific summary

Background

Twenty-five per cent of general hospital inpatients are people living with dementia. Dementia can affect understanding and expressive language, and other features, such as memory loss, can also affect the ability to communicate effectively. Much of health care is delivered through talk. Problems with communication make care and decision-making difficult, and contribute to behaviours indicating distress. Family carers and health-care professionals identify communication as a problem, but opportunities for communication 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 sociolinguistic 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 the questions, with respect to communication between health-care 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
- investigate empirically how experienced health-care professionals communicate with people living with dementia, identify when problems arise and how problems are overcome
- identify trainable communication strategies
- develop a communication skills training course using coproduction
- 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 health-care encounters

We recruited consenting health-care 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 video-recorded 41 health-care encounters between 26 health-care professionals [11 nurses, nine doctors and six allied health professionals (AHPs)] and 26 people with dementia (10 men and 16 women), comprising 378 minutes (mean 9.2 minutes, range 2–30 minutes). Eleven (27%) video-recordings included a person with dementia who had mild communication impairment, 22 (54%)

included a person with moderate communication impairment and 8 (19%) included a person with severe communication impairment. 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, CA findings and interviews with experts, and consideration was given to logistical constraints. Decisions were made by consensus. Communication is a practical skill, deployed in real time, in unpredictable circumstances; therefore, communication skills training 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 the groups learning, to minimise anxiety (e.g. 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 health-care professionals, all of whom had an interest in clinical education. These participants were debriefed using a focus group, and changes were then made to the course.

Communication skills course evaluation

We ran the communication skills training course six times, in two hospitals' dedicated clinical skills centres. We recruited 45 volunteer health-care 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 (B-A) study design. Before the course, health-care professionals completed measures of knowledge about dementia, and the Confidence in Dementia Scale. Without any further preparation, health-care professionals then undertook one of two simulation exercises (getting a patient out of bed or getting a patient to drink some water) that was video-recorded. Immediately after the second day of the communication skills training course, participants completed a course evaluation. Measures were repeated, and a questionnaire on confidence in communicating with a person with dementia was completed. Participants swapped the video-recorded 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 e-mail and asked about their use of the techniques in practice. An independent occupational psychologist interviewed 10 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), the interpretation of findings, the design and delivery of the training course, and dissemination. People living with dementia and carers were involved in assessing the 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-six 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 4 hours (range 45 minutes to 24 hours over 6 months). Training methods included digital versatile discs (DVDs), e-learning, didactic teaching, group discussions, problem-based learning, self-reflection and videos, supported by theory, written materials and homework. Nine studies used role play, simulations 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 health-care encounters

We video-recorded health-care professionals completing a variety of clinical tasks, including ward rounds, recording vital signs, medication administration, swallow assessments, feeding, and assessments of mobility and activities of daily living. All tasks were initiated by the health-care 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 health-care professionals introduced themselves by name and stated their purpose. The reason for the visit was mostly made explicit. Information gathering varied depending on the task involved, and sometimes did not occur. The business phase usually required physical action on the part of the health-care professional and the patient, working more or less collaboratively. The closing was usually initiated by the health-care 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, which were often repeated several times. Refusals could be overt, mitigated (a reason given) or a passive non-response. These features are unusual in health-care interactions and removed from what everyday communication skills prepare us for.

Conversation analysis 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' by using a checking question ('is that OK?').

Health-care professionals were more likely to complete a task successfully 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 reopening a conversation, sometimes in an attempt to complete a failed task. Health-care 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 the use of vague or non-specific language ('see you soon'), which was 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 '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 that could vary with time and context, requiring real-time awareness, assessment and adaptation by the health-care professional.

Communication skills course development

We developed a communication skills training course comprising 2 days, 1 month apart, which was developed from a series of four whole-day workshops and other meetings.

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

Communication skills course evaluation

Forty-five trainees attended day 1 and 44 returned for day 2. There were eight doctors, 19 nurses, 17 AHPs and one activities co-ordinator; 89% were female. Eighty-nine per cent were of white ethnicity, and there was a median 5 years' experience working with patients living with dementia. One trainee failed to return assessment documentation. The course was evaluated highly: 98% would recommend it to other health-care professionals. Mean scores were > 9 out of 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 before and after the course (32.8/45 vs. 38.3/45; $p < 0.001$), as did communication-specific confidence questions. Participants improved on the dementia knowledge test (7.2/10 vs. 8.8/10; $p < 0.001$).

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

The speech and language therapists' ratings of simulated encounters showed that after training, when closing an interaction, participants were less likely to make a vague arrangement (56% vs. 16%; $p < 0.001$), more likely to be specific about closing (51% vs. 79%; $p = 0.01$) and more likely to announce completion (0% vs. 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 health-care professionals were highly entitled making a request and 93% of health-care professionals reduced contingencies after refusals).

On the Emotional Tone Rating Scale, communication after training was found to be more controlling (2.2/5 vs. 2.8/5; $p = 0.002$), more bossy (1.9/5 vs. 2.3/5; $p = 0.02$) and more dominating (1.9/5 vs. 2.5/5; $p = 0.006$) but there were no differences in the other categories (warm, nurturing, directive, affirming, respectful, patronising, supportive, polite and caring).

The interview study found that training was considered to be highly effective. Use of simulations and interdisciplinary learning and the use of real-life 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 the simulations 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 Videoing to Improve dementia Communication Education (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 health-care 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. B–A 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, SPs, facilities and the small group sizes. Although 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. CA should be used more widely in investigating health-care 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.

Study registration

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