**TITLE**

Supporting communication for people with aphasia in stroke rehabilitation: transfer of training in a multidisciplinary stroke team

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**Abstract**

*Background*:  Participation of people with aphasia in clinical care and rehabilitation is an area of increasing research interest.  Supported Communication (SC) training, which aims to enhance the participation of aphasic patients, has been shown to improve conversation partner knowledge and skills. However there is a lack of evidence for transfer of SC training to practice in post-acute rehabilitation settings.

*Aims*: We aim to develop an understanding of causal mechanisms implicated in the transfer of SC training, by examining the nature of the setting, staff perspectives and the situated character of the action.

*Methods*:  Twenty-eight staff from a multidisciplinary team were trained in SC. We collected detailed and varied data, including staff experiences of SC training and implementation, and video data of routine practice. Using a critical realist approach, we develop explanatory mechanisms for barriers to and enablers of transfer. Eleven team members (nursing, therapy and assistant staff) took part in focus groups and interviews at the end of the study; 54 learning logs were collected over a ten month period. Six aphasic patients and eight staff took part in video-recordings of therapy and care sessions.

*Findings*: Three main themes derived from staff experience data are linked to key components of the setting, indicating processes implicated in transfer of training, and impacting on outcomes such a perceptions of quality and staff confidence. ***Barriers, constraints and problem-solving approaches in enacting SC*** were evidenced through *patient factors*, *spaces and events* and *time constraints*. Staff flexibility and team working were key factors in problem-solving these obstacles. Staff reported ***Responsive use of skills and resources*** and ***Perceived Impact of SC training***, with most but not all staff reporting benefits, including increased confidence in interactions with aphasic patients. Activity analysis of video data illustrates how some mechanisms may be operating in practice, with evidence of rich use of interactional strategies and resources; a focus by staff on getting the work done; opportunities for patient active participation or emotional support that are realised or not; strategies for aphasia-related trouble and repair sequences.

*Conclusions*:  This model of SC training has clear benefits for staff communication practices and confidence, but transfer of training is subject to complex processes. Training should therefore address systems-level practices and be extended for staff who need more advanced skills. The values implicit in SC have the potential to create a culture of access and inclusion, encouraging and supporting active participation of all stroke patients.

Keywords:

Aphasia; supported communication; multidisciplinary; post-acute stroke rehabilitation; training transfer; critical realism

**Introduction**

Effective communication between health care staff and patients is an essential aspect of maintaining patient safety (World Health Organisation, 2008), ensuring a good experience of care (National Institute for Health & Care Excellence [NICE], 2012) and enabling active involvement through partnerships with healthcare professionals, who should have demonstrable competency in relevant communication skills (NICE, 20012; 2013). In the context of stroke rehabilitation specifically, staff should be competent to enable people with communication impairments to convey everyday needs and wishes, and support them to understand and participate in decision-making (NICE, 2013).

For people with aphasia, participation, which is key to the success of most treatments in stroke rehabilitation (Intercollegiate Stroke Working Party, 2008) may be adversely affected by ‘barriers’ such as inaccessible information, negative staff attitudes, or unskilled communication partners (O’Halloran, Hickson, & Worrall, 2008; Pound, Parr, Lindsay, & Woolf, 2000). Stroke staff should ensure that environmental barriers to communication are minimised (NICE, 2013), as people with aphasia are particularly vulnerable to the effects of these adverse conditions (Simmons-Mackie, Kagan, O’Neill, Christie, Huijbregts, et al., 2007). The level of communication disability – and by implication the level of satisfaction with and involvement in rehabilitation – experienced by a person with aphasia results from an interaction between the impairment itself, type or complexity of activity undertaken, and the healthcare or social environment (O’Halloran, et al., 2008).

The principle of enabling people with aphasia to more fully participate originally focused on conversation/communication in family and community contexts (e.g. Kagan, 1998; Lyon, Carisk, Keisler, Rosenbek, Levine, et al., 1997). Access for and participation of people with aphasia in clinical care and rehabilitation in particular are receiving growing research interest (e.g. Kagan, 1995; Glenwright, Davison & Hilton, 1999; Legg, Young, & Bryer, 2005; Simmons-Mackie, et al., 2007). A key element of approaches in both types of context involves education and skills training for non-aphasic communication partner/s (e.g. Lyon, et al., 1997; Kagan, Black, Duchan, Simmons-Mackie, & Square, 2001; McVicker, Parr, Pound, & Duchan, 2009).

Participation in communicative interactions has been demonstrably enhanced for people with aphasia by providing ‘supported communication’ (SC) in the form of skilled communication partners and appropriate communication resources (e.g. Kagan, et al., 2001; Hickey, Bourgeouis, & Olswang, 2004). SC builds on the ability of many people with aphasia to capitalise on preserved cognitive and interactional abilites in order to participate (Kagan, et al., 2001), and is premised on the theory that interactional communication is collaborative and co-constructed (Clark & Wilkes-Gibbs, 1986), with the unimpaired communication partner (e.g. spouse, volunteer; healthcare practitioner) being jointly responsible for achieving exchange of information and sustaining participation (Kagan, et al. 2001). Important interactional principles related to social constructionism, local negotiation of action, collaboration, and the social dimensions of power and authority underly this apparently simple approach, with implications for maximising access and inclusion for people with aphasia (Simmons-Mackie & Damico, 2007).

A number of approaches to partner training have evolved, with a focus on: the dyad e.g. spouse plus person with aphasia; close family member/s or friends, but without the person with aphasia present; strangers e.g. volunteers, student speech and language therapists or healthcare professionals. Skills targeted tend to be dependent on the approach taken (Simmons-Mackie, Savage, & Worrall, 2014; Simmons-Mackie, Raymer, Armstrong, Holland, & Cherney, 2010). For example, in dyad training ‘problem’ behaviours on the part of the communication partner e.g. spouse interruptions or over-use of test questions, may be identified prior to training (Simmons-Mackie, Kearns, & Potechin, 2005). More ‘generic’ training approaches tend to focus on the ability of partners to acknowledge (e.g. keeping talk natural; avoiding being patronising) and reveal (e.g. ensuring understanding; ensuring opportunities for expression) the competence of people with aphasia, while highlighting important differences between social interaction and transaction of information (Kagan, 1995; Kagan et al., 2001). Interventions range from group approaches to education in generic strategies through partner training workshops, to highly specific and specialised dyad focused interventions (see Simmons-Mackie, et al., 2014; Simmons-Mackie, et al., 2010 for comprehensive reviews). The impact of training on partner skills has been evaluated using two key approaches – qualitative, predominantly applying Conversation Analysis (e.g. Simmons-Mackie & Kagan, 1999), but also using interviews with partners (e.g. Sorin-Peters, 2004); and quantitative, for example using knowledge and understanding questionnaires (e.g. Rayner & Marshall, 2003), or behavioural rating scales (e.g. Kagan, Winkel, Black, Duchan, Simmons-Mackie, & Square, 2004), but with the underlying sense that overall impact should extend to the well-being and quality of life of people with aphasia (Kagan, Simmons-Mackie, Rowland, Huijbregts, Shumway, et al., 2007).

Proof of concept of communication partner training has been established through a range of studies and study types, and indeed recommendations for training multidisciplinary stroke teams (MDTs) in ‘communication support’ are embedded in a number of national clinical guidelines for stroke (e.g. Intercollegiate Stroke Working Party, 2008, 2012; National Stroke Foundation, 2010; NICE, 2013). However, there is a significant gap in partner training research evidence in acute care settings (Simmons-Mackie, et al., 2010). Simmons-Mackie et al. (2007) report on a study aimed at improving communicative access and decision-making for people with aphasia in three types of healthcare system, including acute care. They used a model that incorporated staff team-training in supported communication, with post-training support and follow-up, and found that there was a positive impact on team knowledge of alternative communication methods, identification of appropriate resources and strategies and a “recognition of shared responsibility for promoting access” (Simmons-Mackie et al., 2007, p.59). These authors found positive systems-level changes in rehabilitation and long-term care settings, but not in acute care. McGilton, Sorin-Peters, Sidani, Rochon, Boscart, & Fox (2011) took an experimental approach in a one group pre- post-design of a patient-centred communication intervention. Using an interaction rating checklist they found that nursing staff were able to deploy communication strategies learned in training, but that practice changes needed continued feedback and support to be sustained. While attitudes and knowledge related to care of patients with communication impairments improved from the staff perspective, closer relationship and ease of caregiving did not. On the other hand there was a significant increase in patients’ perceptions of staff relational care, their ability to communicate and the closeness of relationships with staff.

The need for a balance between intensive rehabilitation, and emotional support for stroke survivors, with shared goals derived from active communication between patients and clinical staff has been highlighted (e.g. Wen Eng, Brauer, Kuys, Lord, & Hayward, 2014). However, nurses’ interactions and use of supportive communication skills with stroke survivors with aphasia and nurses’ advocacy skills for those with aphasia and their families in MDT meetings have been shown to be limited (Hedberg, Cederberg, & Johanson, 2007; Gordon, Ellis-Hill, & Ashburn, 2009). These studies suggested that such limitations were also apparent in other MDT members and represented areas of stroke rehabilitation where whole team training was warranted. There is no doubt that underlying dimensions of power and authority impact on how participation and inclusion are realised (Simmons-Mackie & Damico, 2007) through the operation of mechanisms related to participant roles and identities (Horton, 2007). Interactions within rehabilitation activities may be framed (Goffman, 1974) in a range of ways, from ‘instructional’ to ‘caring’ or ‘conversational’, which have implications for the roles and relationships of participants (Roberts & Sarangi, 2005). Health professionals work within sets of rules (e.g. care plans; evidence based practice; shared decision-making) mediated through experience and the demands of the case in hand, giving rise to the need for expert management of interactional trajectories (Sarangi, 2010). However framed, supporting communicative access and participation is a delicate and demanding task that “requires sensitivity to the nuances of communication at the local level” (Simmons-Mackie & Damico, 2007, p.92).

Patients may potentially experience wide variations in the type and nature of rehabilitation in-patient activities and the level of engagement, participation and autonomy they enjoy (Horton, Howell, Humby & Ross, 2011). Although experienced stroke care practitioners might be expected to already possess the necessary skills, communication problems in healthcare settings do not necessarily resolve with clinical experience (Fallowfield, Jenkins, Farewell, Saul, Duffy, & Eves, 2002). Indeed, individual communication skills training may not in itself lead to improved patient outcomes if not supported by attention to the particular needs of the practice setting (Simmons-Mackie et al., 2007; Chant, Jenkinson, Randle, & Russell, 2002) and strategies for sustained implementation of the intervention in context (Swanson, Gold, & Keen, 2011; Simmons-Mackie et al., 2007; Heaven, Clegg, & McGuire, 2006). Changing behaviour is particularly challenging in healthcare settings due to the complex relationships between organisations, professionals and patients (NICE, 2007).

In this paper we report on qualitative findings drawn from a larger study, which examined the feasibility, initial evidence of clinical efficacy and value of a SC intervention aimed at improving the participation in rehabilitation activities of people with moderate-severe aphasia after stroke (Supported Communication to Improve Participation in Rehabilitation of people with moderate-severe aphasia after stroke: a pilot study [SCIP-R]: ISRCTN**:** 37002304). The main study used an exploratory cluster controlled assessor blinded trial design (SC enhanced care vs routine care), with clusters based on the stroke rehabilitation unit from which the participants – healthcare staff and patients – were recruited. Ethical approval was granted by the East of England NRES Committee (ref: 10/H0310/69).

Here we aim to develop an understanding of causal mechanisms implicated in the transfer of SC training to day-to-day clinical practice. We focus on particular phenomena and processes, in the context of a post-acute rehabilitation unit and a multidisciplinary stroke team trained in SC. By examining the nature of the setting, staff perspectives and the situated character of the action we seek to further our understanding of barriers and enablers to SC implementation.

**Methods**

We take a critical realist perspective to developing an understanding of these issues. Realist or critical realist approaches (see Maxwell, 2004; Angus, 2012) use a range of methods to investigate causal mechanisms involved in particular settings, examining the interplay between intervention, individuals and context (Marchal, Westhorp, Wong, Van Belle, Greenhalgh, Kegels & Pawson, 2013), with the potential to develop explanatory mechanisms for interventions which, for example may vary from patient to patient, are distributed across many members of staff and are “played out in conjunction with other treatments and care” (Pawson, 2012, p.4). Causal mechanisms, while they may not be open to direct observation, can be inferred though a combination of empirical investigation and theory construction, in order to “develop deeper levels of explanation and understanding” (McEvoy & Richards, 2006, p.69).

This approach does not rely on comparisons between control and intervention conditions. Therefore, we have used a case study of the intervention unit, using detailed and varied data to describe key components of the setting and the “mental events and processes” (Maxwell, 2004, p.247) associated with staff experiences of SC training and implementation, which will provide a context for examining examples of day-to-day interactional practices.

***Setting and participants***

The intervention site was 24-bedded ‘post-acute’ stroke rehabilitation ward in a purpose-built rehabilitation unit. Patients were admitted after a mean of 11 days on an acute unit, with a median stay of 38 days in rehabilitation. The ward was divided into two nursing teams, with physio- (PT), occupational (OT) and speech and language therapists (SLT) working across these teams. The ward had four 4-bedded, two 2-bedded bays, and four single rooms, a day room and two consulting rooms, used for some therapies. A therapy gym was located two floors up from the ward.

Staff participants were recruited from all professional groups (nursing, therapists, healthcare assistants, others) and from Bands 2-7 (seniority and pay scale grading) in order to reflect the workforce composition. Medical staff were excluded because rotation of junior doctors made it unlikely they would be able to complete the study. Target recruitment (N=24) was achieved; owing to attrition (one participant withdrew; three left the unit for other employment) a further four staff were subsequently recruited and trained. At the end of the study 21 of the 28 were still in post, with one of these on maternity leave. Table 1 is an overview of staff participating in the study (intervention site) by seniority (Band) and profession (Healthcare assistant [HCA]; Associate Practitioner [APR]; Non-clinical admin. [NCA]).

INSERT TABLE 1 ABOUT HERE

There are no Bands 2-4 in nursing or the therapies, and no higher grades for HCA and APR than Band 4; NCAs are generally Bands 2-3. HCAs carry out general nursing and care duties; APRs deliver (mostly) PT and OT activities; NCAs deliver a range of support services. More detailed information about staff characteristics is in Table 2.

INSERT TABLE 2 ABOUT HERE

Staff participants were overwhelmingly female (78.6%) and worked full-time (75%). For around one-fifth of these (21.4%), English was their second language. The mean length of stroke experience was 3.13 years (SD 4.06). For the two largest participating staff groups, this was 3.11 years for nursing (SD 2.83) and 1.56 years (SD 0.65) for HCAs.

At the intervention unit thirteen people with aphasia consented to take part in the study. Key patient participant characteristics for those patients who consented to take part in video sessions (N=6) are in Table 3.

INSERT TABLE 3 ABOUT HERE

Inclusion criteria of moderate-severe aphasia in the overall study (TOMs 0 – 3.5 for *Impairment* and *Activity*) (Enderby, John, & Petheram, 2006) was based on clinician assessment, and premised on the observation that measures of SC do not necessarily capture behaviours and skills associated with mild aphasia (Kagan et al., 2004).

***The intervention: SC training***

SC training (intervention site) was ‘basic level skill’ (Simmons-Mackie, 2014) based on a model used by Connect – the communication disability network (McVicker, et al., 2009), adapted to the local context (Simmons-Mackie, et al., 2007) by drawing on the views and experiences of staff and people with aphasia (aphasia experts) developed through (separate) focus group discussions (Kitzinger, 2006). There was a strong consensus of staff and aphasia experts that the primary focus of supporting communication should be ‘all about the person’, acknowledging: the lived experience of stroke and aphasia; loss of confidence and self-esteem; anxiety; and supporting the need to communicate feelings and needs in the process of re-learning. The model involved an education workshop, led by the first author, a speech and language therapist with extensive SC training experience, including video examples of ‘good’ and ‘bad’ communication practice, in mixed staff groups (2-3 hours), and two face-to-face training sessions by people with aphasia for each staff member, who received feedback on their skills and use of resources. Face-to-face interaction with people with embodied expertise is seen as a key feature of the experience for trainees in health and social services (Skilton, 2011). The workshop included discussion of the use of SC in day-to-day practice, drawing on participants’ own clinical experiences. A summary list of topics covered in the workshop is included in the Appendix.

Strategies for sustaining implementation of the intervention in context (Simmons-Mackie, et al., 2007; Heaven et al., 2006) consisted of: ‘nudges’ (pens inscribed with: ‘supporting communication’; a ‘pocket guide’ outlining key points from the training and a small communication resource) distributed to staff; offers of ‘refresher sessions’; and the use of a monthly *learning log* (henceforth ‘learning log’ or ‘log’) for staff to complete, using key categories from the training (e.g. ‘responding naturally and appropriately’; ‘ensuring the person with aphasia has a means of responding’; ‘checking and confirming understanding’) with a self-rating confidence scale and options for reflective notes.

***Procedures and data collection***

For the main trial, following recruitment of each staff participant at both sites, we collected video data of individual interactions (10 minute conversations) with two people with aphasia (volunteers) before and after SC training, to assess impact of training at individual and group levels (paper in preparation).

For the purposes of the study reported here, data were collected in the following ways: i) contextual data in the form of staff experiences and perspectives of training and implementation of SC were collected using three main methods: focus groups and individual interviews (after training and after completion of the SC implementation period); learning logs (after training and during the course of the SC implementation period); ii) routine clinical practice data in the form of video-recordings using hand-held or tripod mounted digital camcorder (after training and during the course of the SC implementation period). All data were collected on-site by the second author, an experienced qualitative researcher.

*Focus groups*, following a topic guide (see Appendix) were used to generate discussion among staff participants about their experiences of training and implementing SC. Two staff focus groups were held separately with those in Bands 2-4 (N=3), and in Bands 5-7 (N=2). If staff were unable to attend they were *interviewed individually* following the same topic guide (N=6). Of these 11 staff there were: 2 PTs, 1 OT, 2 Nurses, 4 HCAs, 1 AP, 1 NCA. Focus groups, lasting 45-60 mins were audio-recorded and transcribed for analysis; records of individual interviews (average length 25 mins) were made using contemporaneous field notes. Staff *logs* were collected monthly over a ten month intervention period, with 31% (N=54/174) logs returned for analysis. Some participants returned logs regularly; most, however, did so sporadically. APRs proportionately returned the highest number of logs (N=16); HCAs returned the lowest, proportionately (N=9). Of the 22 native English speakers, 7 (32%) did not submit a log; while 2 (33%) of the 6 participants for whom English was not their first language did not return a log. Data from these logs were quantitative and qualitative; here we report on the qualitative (free text) data only.

Observations of routine day-to-day rehabilitation and care activities were video-recorded in order to enable their repeated scrutiny. Staff and patient participants were required to give additional consent for video recordings; therefore video observations constitute a sub-sample of data from participants recruited to the study, with data from six of the thirteen patients, collected over a 15 month period included. Details of participants, session and activity types are in Table 4.

INSERT TABLE 4 ABOUT HERE

This convenience sample includes a diverse range of activity types, therapy or care materials, spaces and participants. All activities were dictated by participant needs not by researchers. We addressed ethical issues associated with making video recordings in such settings (e.g. General Medical Council, 2011), reminding participants of their option to stop recording at any time. The issue of participants’ ‘camera reactivity’, is still debated (Monahan & Fisher, 2010; Harrison, 2002; Speer & Hutchby, 2003), but we take the stance that while camera and observer inevitably affect the phenomena being studied, this has not altered the presentation of rehabilitation or care in ways that significantly affect the validity of our interpretations about the constitution of practices.

***Analysis***

We have adapted a stepwise approach to data analysis for critical realist studies (Bygstad & Munkvold, 2011). We identify key components of mechanisms in this case and examine how these components interact in producing or not producing transfer of SC training, illustrated through analysis of day-to-day practice. Key components are: SC training and associated ‘nudges’; the workforce (individual staff; the MDT); patients; rehabilitation and care routines and systems; spaces and events. Contextual influences as expressed through the experiences of staff participants are examined through their links with these key components. Staff experience themes were derived from analysis of focus group, interview and log data. We followed the general thematic analysis steps and quality criteria described by Braun & Clarke (2013; 2006), including reading and familiarisation of texts, coding across the entire data set, establishing emergent themes, reviewing and finalising themes at a semantic level (Braun & Clarke, 2006). Transcripts and notes were read, coded and checked individually and together by SH & KL, initial themes developed, rechecked and finalised.

Day-to-day practice is illustrated through video data extracts, which were transcribed verbatim by CS and SH using common Conversation Analysis conventions (e.g. Jefferson, 1984 – see Appendix). Close attention was paid to nonverbal communication, including eye gaze, gesture and bodily orientation. We have applied an analytic strategy, which attempts to explore the ways in which “talk is inextricably embedded in the material environment and the bodily conduct of the participants, and how objects and artefacts … become momentarily relevant with the course of particular actions and activities” (Heath & Hindmarsh, 2002, p. 104) in the practical accomplishment of (SC) activities within a particular rehabilitation ecology (Heath & Hindmarsh, 2002; Street, 2003). Our approach to activity analysis (Sarangi, 2010) involves ‘chunking’ sequences of interaction according to distinctive patterns of rehabilitation or care encounters (e.g. Horton, 2006), and attention to the turn-by-turn sequential organisation of talk-in-interaction (Schegloff, 2007) incorporating relevant non-verbal aspects (Korkiakangas, Weldon, Bezemer & Kneebone, 2014) within the material context. In addition, we reference the framing of talk and activity, and how changes in ‘footing’ are managed (Goffman, 1974; 1981) as participants shift alignment, or co-ordinated interaction. Framing refers to the way that individuals or groups organise, perceive and construct a particular social reality (Goffman, 1974), while footing describes participants’ interactional positions in any encounter, where people can use verbal or non-verbal cues to establish the footing of the interaction (Goffman, 1979).

**Findings**

Three main themes derived from staff experience data are set out below, with their links to key components clearly identified. Headings and sub-headings indicate how these components may be understood as mechanisms, which function as barriers to or enablers of transfer of training, and impact on outcomes such a perceptions of quality, or staff confidence. In addition, fine grained analysis of five extracts from the body of video data (Table 4) allows us to expose, explore and illustrate how some mechanisms may be operating in moment-by-moment situated practice, where actors’ displays of interactional competencies may be “so taken for granted that members are unlikely to mention them to one another or to qualitative researchers” (Miller, 1997, p. 27).

***Barriers, constraints and problem-solving approaches in enacting SC***

Barriers and constraints identified in staff accounts were linked to patient factors; spaces and events; and rehabilitation and care routines and systems; problem-solving was linked to individual staff practices, MDT and team-working practices.

*Patient factors*

While SC appeared to equip staff participants with the means for more “fruitful” interactions, barriers were also identified. Most staff acknowledged in focus groups and logs that cognitive or emotional problems blocked some of their attempts to get to know patients, though this did not necessarily deter them from employing verbal and non-verbal means to make connections. There was repeated mention in logs and discussion in both focus groups of the severity of aphasic and cognitive impairments as significant barriers to implementing SC and communicating with individuals. In one focus group, a therapist acknowledged that “you can provide the person with a variety of means but they may not have the skills to use them”.

*Spaces and events*

While manifestations of noise are apparent to all patients, aphasic patients were particularly vulnerable to being distracted and confused by them. In all verbal accounts at the end of the study, although by contrast very infrequently in the written logs, staff referred to intrusive noise on the ward. Senior therapy staff and three HCAs commented on occasions such as visiting hours and physical factors such as call bells, which could challenge their interactions with aphasic patients.

*Rehabilitation and care routines: time constraints*

Although routine practice may have changed after their SC training, staff still found time was a barrier when attempting to get to know the patient as a person within the demands of rehabilitation and care routines. Depending on a patient’s stage along the care pathway, staff interacted in variable ways; for example, two therapists and two nurses reported that interacting with a new patient typically required more time compared with later in the care pathway. Incorporating SC into rehabilitation and care routines could impact on the actual time spent with aphasic patients; interactions sometimes took longer – in some instances, up to fifteen minutes longer on an average session. Learning logs offered a vehicle for staff to express views on the value, as well as shortage, of time. For example, an APR reported that “it is not possible always to ensure that aphasic patients understand. Needs time and trial using non-verbal / verbal cues.” Another APR described in a log the challenge to her ability to help the aphasic person communicate their needs, opinions or feelings: “The patient likes to keep talking [and it’s] hard to leave. Cannot stay as work with other patients to do.”

*Problem solving: patient factors*

Team working and flexible implementation of rehabilitation or care routines were key features of most problem solving approaches adopted by staff. In a focus group, one HCA described how “if a situation [with an aphasic patient] becomes difficult” and her own SC practices were not working effectively, “I will always ask someone to help”. References to positive team-working surfaced on many occasions when staff described their learning in practice: one nurse reported accessing the SLT for alternative perspectives, while the NCA (Band 3) described how he approached challenging situations: “I’ll go and ask one of the nurses or one of the HCAs because they’re much more likely to know the patient better than I am… I’ll try one of them because sometimes it’s just getting to know the patient more”. In a log, a senior therapist indicated that ensuring that the person with aphasia fully understands was “difficult… with globally aphasic patients. Need to work more closely with MDT.” Another therapist wrote that recognising “contextual clues [in patients] can be vital” to more effective interactions with severely aphasic patients.

*Problem solving: time constraints*

Individual initiative, flexibility and workload adjustments were apparent in these problem solving approaches. Staff appeared to be more attuned than before their training to specific uses of time and using it more effectively with patients with aphasia.  Examples from focus groups and logs show that staff seemed to have developed effective time-management strategies with moderate and severely aphasic patients. In a focus group, an HCA stated that she “just found the time” to work with patients. Another HCA in the focus group recounted how, in her ward routines, she gave an aphasic patient time to complete a task, even if this meant “another patient had to wait until after lunch to be dressed”. An OT, when asked in interview how she found time to interact with aphasic patients, replied that she “prioritised” and adjusted other tasks, adding, “you push back those of less priority”, saying she “would rather invest time with a patient than move on to another patient” in order to ensure the first patient received the full therapy activity.

***Responsive use of skills and resources***

All staff participants provided examples of their awareness of the communication needs of individual patients with aphasia. These included altering how they asked questions (e.g. using Yes/No rather than open questions; never posing two questions simultaneously) and attending to and learning from patients’ own communicative practices. A Band 5 nurse with long-standing clinical experience reported in interview that, as a result of what she had learned, she now always maintained eye contact with patients in all her tasks with patients.

The use of gesture was reported to be highly effective by staff and one of the significant changes SC had made to their routine practice. In logs as well as focus groups, staff described they had gained a fuller understanding of the impact of gestures and non-verbal communication in breaking down barriers with and experienced by aphasia patients. For example, two HCAs attested in a focus group that their use of gestures was the most important change they had incorporated in practice, as a result of the study. Although another HCA participant admitted in interview that she seldom used pen and paper with aphasic patients, several others (4 in focus groups; 4 in interviews) stated that these resources were now included in their own interactions with patients.

An increased awareness of “checking and re-checking” with the patient was also described by some staff (3 nurses; 4 therapists; 3 HCAs), as well as the realisation that, as healthcare professionals, they were prepared to be wrong. In a log, one HCA indicated trying to establish communicative links with a patient, varying the approach to help the patient express his/her needs.

***Perceived impact of SC training***

*Little or no impact of SC training*

Most but not all staff reported benefits from SC training. One Band 5 nurse acknowledged that she knew a lot about SC before the training, though also commented that the training “re-enforced” her knowledge as well gave her “new ideas”. On reflection, she added, “practising SC makes me feel better.” Staff described feeling “helpless” (PT Band 6), “disappointed” (APR Band 4) and “frustrated” (OT Band 6, several HCAs) when they could not understand patients with aphasia and suggested the training should provide more practice with severely aphasic people. In separate interviews, two staff (PT Band 6; APR Band 4) remarked that SC training had not made much, if any, difference to their practice because they already knew about SC. The PT commented that “I was already doing a lot of what SC is about,” adding that some HCA staff “don’t fully understand aphasia; they would benefit from training”.

The ‘nudges’ introduced on the unit had a variable impact. For example, there was very poor take-up of refresher sessions. Although the pocket guides were designed to fit a uniform pocket, most staff did not carry them, finding them cumbersome or forgetting to include them in their routines. Learning logs, functioning as a means of data collection and a reflective resource appeared to have some impact on reflective practice. For example, one OT in interview admitted that she did not submit any logs, but stated that receiving the logs brought to mind her own SC practice and made her “reflect more” which, she added, was especially useful given “the whirlwind of the ward”.

*Positive impact of SC training*

Evidence from verbal and written accounts indicated that the majority of staff benefited from the training and incorporated their learning into rehabilitation routines. For example, an HCA wrote in a log that she was able to respond “most of the time” naturally and appropriately to aphasic patients because of what was “learnt from the SCIP-R training”. Learning logs and end-of-study focus groups and interviews revealed that staff participants demonstrated greater sensitivity in interacting with people with aphasia than prior to the SC intervention. Specific examples cited indicated that they helped to ensure that aphasic patients had a means of responding, even though this might not always be possible or had limited success. A Band 5 Nurse felt that “everyone” should know about SC because not only would you “learn how to talk to patients with different challenges” but also “you need to learn how to think on your feet and implement ways of communicating”. While the Band 4 APR, who had reported no change to her practice also claimed that she had not observed changes among communication practices on the ward, the Band 7 therapist commented in a focus group that awareness levels of patients’ communication needs had risen on the ward as a result of the study and training, and that communication “was part of staff conversation”.

 *Confidence in the enactment of SC*

In the face of the challenges of noise and time, staff nevertheless exhibited that SC had an impact on their practice, not just in how they employed problem-solving skills in the face of time shortages. An APR and a Nurse stated that SC gave them the confidence to return two or more times to a patient to try different methods to gain understanding of the patient’s needs. Feeling comfortable to leave a patient and “park” a particular issue, and then consult other team-members about alternative approaches to a patient suggested effective cross-team working, as well as an enabling environment. A senior nurse reported in a focus group that his “interactions [with aphasic patients] are more fruitful” as a result of SC. Evidence from some logs suggested that staff were gaining skills in how they deployed their time. This varied from the senior nurse who reported having the confidence “to return another time” if his first attempts at communicating with a severely aphasic patient were unsuccessful, to an APR identifying in a log that giving aphasic patients “time, reassurance, eye contact, even if conversation difficult” as what she had learned to adopt in her future practice.

***Video observations of day-to-day practice: five illustrative extracts***

Common to all these extracts is the rich use of interactional strategies and resources by staff and patients; a focus by staff on the business in hand and getting the work done (e.g. therapy, medicine rounds etc.), often involving well-seasoned routines within structured activities; opportunities for patient active participation that are realised or not; aphasia-related trouble and repair sequences. Particular aspects are identified and explored in each extract.

*Routine practice and practiced routines*

Extract 1 is drawn from a ‘sit-to-stand’ session, involving Bob, an APR and PT student (not in shot), in the therapy gym; two adjustable plinths are used – one on which Bob and the APR start seated side-by-side, the other to Bob’s left, apparently placed to steady him when he stands. The student PT is seated on a stool opposite Bob. The light is slightly muted by window blinds; there is no intrusive noise during this extract, which starts at 13 seconds into the recording:

|  |  |  |
| --- | --- | --- |
| 009 → | APR | D’you want ⎡the mirror so we can keep you in line ⎤ ⎣((APR gestures with hand raised vertically))⎦ |
| 010 | Bob | Mm: n:::no no (⁰try without⁰) |
| 011 | APR | No (.) try without OK and then (.) we can always try after |
| 012 | Bob | Yeah  |
| 013 → | APR | Hand ⎡down there to start ⎤ (0.5) right (.) are we ready ⎣((APR indicates Bob’s lap))⎦ |
| 014 → | Bob | Which ⎡one is ( ) this one ( ) this ⎤ ⎣((Bob points down to his legs))⎦ |
| 015 → | APR | ⎡Push first ⎤⎣((APR points to Bob’s leg)) ⎦ |
| 016 → |  | so you’re going to ⎡push first ⎤ ⎣((APR pushes herself up from plinth)) ⎦ |
| 017 → |  | then ⎡hold ⎤ ⎣((reaches over to plinth with hand)) ⎦ |
| 018 | Bob | ⁰OK⁰ |
| 019 | APR | ⎡Yeah ⎤⎣((APR sits down again))⎦ |
| 020 → |  | ts OK (.) ready |
| 021 | Bob | ⁰Right⁰ |
| 022 → | APR | Yes (.) one two three=⎡big push ⎤ |
| 023 | Bob  |  ⎣((reaches forward with left arm))⎦ |
| 024 → | APR | ⎡Uh uh uh ⎤⎣((reaches to bring Bob’s arm back))⎦ |
| 025 → | APR | yer gonna ⎡push up ⎤ ⎣((pushes herself up from plinth))⎦ |
| 026 | Bob | yea |
| 027 | APR | yeah ready? (1.0) |
| 028 → |  | One two > three<=big ⎡push yeah well done ⎤ |((Bob and APR rise together, |  ⎣ her hand resting on his back))⎦ |
| 029 | APR | Good man up tall up tall (0.5) lovely (.) well done |

There are two key phases: *preparatory* (lines 009-021); and *instructional* (022-029), with Initiation-Response-Feedback sequences typical of rehabilitation practice (e.g. Horton, 2006), where such sequences ‘map’ onto ‘standard’ approaches to motor (re)-learning practice (e.g. Magill, 2011) as patients and practitioners engage with the “material and social environment” (Goodwin, 2000, p. 1490). The *preparatory* phase includes sequences of offer, instruction / demonstration and checking: in l. 009 the APR verbally offers use of a mirror to facilitate the accuracy of Bob’s standing (“so we can keep you in line”), supported by a simultaneous gesture; instruction / demonstration (l. 013) starts with verbal instruction, again supported by gesture – the APR’s “are we ready” signals the start of an instructional routine (Initiation-Response-Feedback), but Bob requests clarification (verbally and non-verbally) (l. 014); this is addressed verbally (l. 015 – 017) with particular attention to the sequence of actions (“push first…then hold”) supported by the APR’s demonstration. In the final part of the preparatory phase, the APR checks Bob’s readiness for the up-coming activity (l. 020).

The *instructional* phase includes Initiation-Response with correction (l. 022 – 026), and a repeat IRF sequence (l. 028 – 029). The APR’s initiation (l.022) is designed to set Bob’s standing routine correctly in motion, but Bob reaches for the plinth to pull himself up, contravening the prior instruction / demonstration. This action triggers an ‘other initiated’ correction sequence (Martin, 2009), including the APR’s l. 024 “uh uh uh”; location of the trouble source, which brings Bob’s action, arm and its (premature) proximity with the plinth into focus; and the APR’s actual repair / correction (l. 025), which brings simultaneous verbal, non-verbal and material resources into play (Goodwin, 2000).

Both the APR and Bob demonstrate a shared understanding of role expectations, with the APR cast as expert, responsible for preparing and instructing, brisk, but alert and responsive to Bob’s checks / questions. Communicative practices are framed within a formal, structured activity, where responsibility for success (APR: “we can keep you in line”), correction and evaluation (APR: “good man”) is clearly understood. The APR responds to Bob’s questions by bringing embodied and material resources into play in a skilled and practiced manner.

*Conflicting demands in routine practice: therapist or teacher, patient, teaching-object or person?*

Extract 2 comes from a session involving upper limb / shoulder work, with Joan, a PT and PT student (Ken, not in shot), taking place in the therapy gym; the work involves use of an adjustable plinth; Joan is lying on her back, her head on a small pillow. The PT is standing to Joan’s right, leaning slightly in, while holding Joan’s right arm, with gaze directed at her arm & shoulder. Ken is seated opposite the PT, to Joan’s left. The light is slightly muted by a curtain half drawn around one end of the plinth; there is no intrusive noise during this extract:

|  |  |  |
| --- | --- | --- |
| 002 →  | PT | It’s about ⎡ninety degrees ⎤ | ((PT looks up, directs gaze to Ken, then down to  | Joan))  ⎣((Joan looks towards PT⎦ |
| 003  | Joan | Oh yea (.) oh yea gosh  |
| 004 | PT | ⎡( XXXX ⎤⎣((PT looking down at Joan and wiggling Joan’s hand))⎦ |
| 005  | Joan | Yes yeah (.) gosh (1.0) |
| 006 → |  | I wish it would stop you ⎡know (mak-)  ⎣((PT slowly lowers J’s arm to the  plinth)) |
| 007 → | PT | (3.5) You wish: ((intonation held level)) |
| 008 | Joan | I could /wɑɩɁ/ /wɑɩɁ/ (XX) ⎡ ge- ge- ⎤  |
| 009 → | Ken  |  ⎣mo- move it a bit more?⎦= |
| 010 → | Joan |  =Yes yeah (X) move it yeah move it |
| 011 → | PT | At the ⎡moment Joan doesn’t have any active movement⎤ ⎣((PT gaze shifts up towards Ken ⎦= |
| 012 |  | =((PT gaze returns to Joan’s arm as she lowers her hand to the plinth)) |

While the overarching focus is on a structured upper-limb activity, there are a number of sub-sequences and thematic trajectories, which highlight the challenges for participants in developing and maintaining shared understandings during enactment of rehabilitation and practice education. The PT’s expertise and authority is displayed in her statement about the degree of movement in Joan’s shoulder (l. 002), which functions as a teaching device for Ken in the first instance; however as Joan’s gaze turns to her and the PT returns eye-contact (ll. 002-005), Joan is enabled to make an evaluative comment (l. 006). The PT aligns with Joan’s troubles talk initiation (e.g. Talvitie and Reunanen, 2002; Parry, 2005) by lowering her arm (i.e. suspending active treatment) (l. 006), creating an opportunity for Joan to self-repair, and providing her with a typical phrase-level repair cue, marked by intonation held level (l. 007). Joan is unable to self-repair and Ken provides a candidate statement (l. 009), which Joan readily accepts (l. 010). Such joint production repair sequences are not uncommon (Simmons-Mackie, Kingston & Schultz, 2004). The PT role reverts to ‘educator’ (l. 011), and Joan’s passive role status is accomplished by the use of “Joan” (addressed to Ken), with the PT’s eye-gaze now directed to the student. The statement “doesn’t have any active movement” baldly contrasts with Joan’s expressed desire to “move it yeah move it” (l. 010). As the PT moves between roles as therapist and educator, Joan’s participation frame moves between ‘patient’ and ‘teaching-object’, and her involvement as ‘Joan-the-person’, with expressed hopes for recovery remaining unacknowledged and unexplored.

*Time out for talk*

Extract 3 is drawn from the same ‘sit-to-stand’ practice session as Extract 1; Bob and the APR are now seated side-by-side on the plinth during a pause in practice:

|  |  |  |
| --- | --- | --- |
| 001 → | Bob | Last time last time it (⎡ XXX )⎤ |
| 002 → | APR  |  ⎣it was really painful ⎦ wasn’t it  |
| 003 → | Bob | ⎡Yea ⎤ |
| 004 | APR | ⎣Yea ((APR nods head))⎦ |
| 005  | APR | And we knew you were in pain but we weren’t ((gestures with right hand)) couldn’t quite work out where it was= |
| 006 → | Bob | =Yea yea  |
| 007 → | APR | N’yea we (.) I thought it was in the hip ((gazes away and puts her hand on her hip))  |
| 008 → |  | but ⎡as soon as we clicked to the knee: ⎤⎣((points briefly to her knee and turns gaze to Bob⎦  |
| 009 → | Bob |  ⎣((nods and makes APR eye contact)) ⎦  |
| 010 | APR | (.) the we (say it 0XXX0 ) |
| 011 → | Bob | Yea ((nodding and gazing down))= |
| 012 → | APR | =right (.) are you ready for another go |

This extract of ‘troubles talk’ is initiated by Bob here (l. 001); generally it is therapists who take responsibility for identifying (and correcting / advising) troubles in performance (Parry, 2005; 2004). The APR and Bob are quickly aligned to discussion of Bob’s troubles statement; we assume the APR uses her prior knowledge to interpret his utterance in l. 001, with a display of empathy (“it was really painful”), which overlaps with Bob’s turn. However, having initiated this sequence, Bob assumes a passive (non-expert) role, using continuers (“yeah” ll. 003, 006, 011) to co-construct the pain narrative, with the APR holding the floor (ll. 005-010). It may be that the APR holds the floor in this way in order to spare Bob’s expressive difficulties, but this may also be a time-saving strategy, while ensuring he is aligned to her ‘expert’ narrative through verbal and non-verbal checks, such as l.008. The objectification of Bob’s body is underlined by the use of “the” (ll. 7-8) (Monrouxe, Rees & Bradley, 2009). The prominent use of “we” by the APR is an alignment strategy frequently found in therapy discourse, where the patient is reminded of a joint past as an “established team” (Simmons-Mackie & Damico, 1999), but is also suggestive of institutional authority, and, because it contrasts with “I thought it was in the hip” (l. 007), also hints at a previous discussion of the ‘case’ among professionals. The sequence ends with a brisk return to ‘business’ (l. 012).

*Time is tight: strategies for repair*

Extract 4 is drawn from an evening medications round, with Joan and a nurse, in Joan’s six-bedded bay. Joan is in a wheelchair, next to her bed, behind her table, on which there are a number of personal items (e.g. tissues, juice bottle). The curtains are drawn around the bed. At the start of the extract there are quiet voices in the background, and the sound of doors closing. The extract starts around 1 minute 43 seconds into the recording; in this period Joan sits in silence (accompanied by sounds of paper turning, and foil crackling) while the nurse prepares the medications. The nurse moves into shot in l. 015, standing to Joan’s right:

|  |  |  |
| --- | --- | --- |
| 015 → | Nurse | just got your calcitube in ⎡there ⎤ |((places a container in front of Joan | |
| 016 | Joan |  ⎣((leans forward and looks)) ⎦ Yes |
| 017 → | Nurse | and your two paracetomol ((tipping tablets out))= |
| 018 | Joan | = O yes yea yea |
| 019 → | Nurse | and your ⎡provostatin ⎤ ((pointing to tablets)) |
| 020 → | Joan  |  ⎣/p / ⎦ Yea= |
| 021 → | Nurse | =would you like ⎡me to sn- ((makes snapping gesture)) |
| 022 → | Joan  |  ⎣I want do no t- t- t- prostratin want to te- te-(0.5)  |
| 023 | Nurse |  ⎣((turns and looks at Joan)) |
| 024 → | Joan | Oh er ((turning gaze down to table then back up to Nurse))  |
| 025 |  | I (can’t X) ((increasing volume of voices in background)) |
| 026 → | Nurse | what is it (fo:r) ((intonation level held high)) |
| 027 | Joan | No Prova- (.) statin ((voices getting louder in the background)) |
| 028 | Nurse | ⎡Yea ⎤⎣((Nurse nods her head emphatically))⎦ |
| 029 | Joan | yea |
| 030  | Nurse | ⎡((points to tablets on Joan’s table))⎤ that’s your provostatin⎣((Joan looks down to table)) ⎦  |
| 031  | Joan | ↓O! O! (right X) |
| 032 → | Nurse |  and that’s for your cholesterol |
| 033 |  | ((Joan and N now making eye contact)) |
| 034 | Joan | O right (.) yea yea (.) oh right |
| 035 → | Nurse | And ⎡two paracetamol ⎤ |((points at tablets on the table; Joan looks |  ⎣ down to the table where the nurse is pointing))⎦ |
| 036 | Joan  | O right ⎡yes yes ⎤ ⎣((leans over and picks up a cup))⎦ |
| 037 | Nurse | ↑Alright  |
| 038 →  |  | Did you want me to snap ((snapping gesture)) them in half for you |
| 039 | Joan | ((looks up to nurse)) (I would) ((Laughs)) |

Interruptions and distractions are recognised as increasing the risk of medical errors in drugs rounds (Verweij, Smeulers, Maaskant, & Vermeulen, 2014), so it is not unusual for patients to wait in silence while medicines are prepared. The nurse uses a politeness strategy (l. 015 “just”) to introduce her reason for being there, stating drug names as she sets them down on Joan’s table (ll. 015, 017, 019). She starts to offer to snap the tablets for Joan, supporting her offer with a gesture (021), but Joan does not align to the ‘taking the medication’ theme, rather focusing (as yet we don’t know how) on the one medication (l. 022). This indefinite initiation is problematic in that Joan’s aphasiac impairments prevent her from precisely defining her inquiry, although her gaze (to table and then to Nurse) clearly indicates the referent (l. 024). The ensuing sequence is set to a background of increasing noise from voices behind the curtain. The nurse’s offer (“what is it fo:r” l. 026), perhaps pre-empting a lengthy repair sequence, is rejected; but she picks up the question-answer adjacency pair in her turn in l. 032, and goes on to complete her question about snapping the tablets (l.038), during which gesture, Joan’s gaze is directed elsewhere. Initiations (e.g. inquiries, offers) by aphasic patients with moderate-to-severe impairments may be the cause of lengthy repair sequences, which busy staff may try to avoid; or alternatively use strategies to close down the inquiry / offer. Here the key resource for repair lies in the immediate physical environment, with an apparently satisfactory resolution co-constructed from Joan’s fragment and the nurse’s enrolment of the physical referent. Although the background noise escalates, neither Joan nor the nurse appears to be distracted by it, so focused are they on the matter in hand.

 *“I can tell what you mean”*

Extract 5 is drawn from a ‘menu round’, with Jim and NCA, in Jim’s six-bedded bay. Jim is sitting propped up in bed, with ‘cot-sides’ up; the NCA approaches from Jim’s right, and is positioned next to the bed, leaning on the ‘cot-side’; the NCA is carrying a pre-printed menu on a clipboard and uses a pen to point to items on the menu, holding the menu up to Jim’s eye-line. There are sounds of people moving about off screen, occasional sound of metal on metal, and muted voices. The extract starts around 2 minutes into the recording:

|  |  |  |
| --- | --- | --- |
| 053 → | NCA | Would you like any sauces on that? (.) I’ve got a bita brown sauce (.) a bit a ⎡XX) ((pointing with pen to item on the menu)) |
| 054 → | Jim |  ⎣yea (.) a bit a ((extended jargon)) mash (.) yea |
| 055 | NCA | (0.5) Brown sauce?((HCA looks at Jim))  |
| 056 → | Jim | Yes yea (XXX) ((extended jargon)) |
| 057 | NCA | ⁰Brown sauce⁰⎡((HCA turns clip board towards self and writes down choice))  |
| 058 → | Jim | ⎣I’m getting worse than ever |
| 059 → | NCA | A:h: you just get a bit mixed up((HCA keeps menu chart lowered and, smiling, looks at Jim))  |
| 060 | Jim | Yeah: ((smiling)) I don’t know |
| 061 → | NCA | You have your clear days((Menu chart still lowered and smiling at Jim)) |
| 062 | Jim | Yes ((laughs)) |
| 063 → | NCA | And if you like I’ll put some plum tomatoes on the side ((HCA raises menu and points at it with pen))  |
| 064 | Jim | ((Jim’s gaze is back on menu)) Plum ⁰plum⁰ no: I don’t think much of them= |
| 065 | NCA | =Just the omelette on its own  |
| 066 | Jim | Yes I think so= |
| 067 | NCA | =Got some potato croquettes ((pointing to menu)) |
| 068 → | Jim | Have ya? (XX) I’ll try that I haven’t done that for a long while  |
| 069  | NCA | ((writing down choice)) Na I haven’t had them for a while either ⎡I like⎤ them |
| 070 | Jim  | ⎣No: ⎦ |
| 071 | NCA | And ((looking down at menu and pointing with pen)) for the dessert tonight there’s chocolate whip with apples and blackberries  |
| 072 → | NCA | ((glances up at Jim and then back down to menu)) (0.5) I’ve got sago pudding |
| 073 | Jim | Sha shi (.) shep ⎡((extended jargon)) ⎤ |
| 074 → | NCA |  ⎣((looking up at Jim and back down to menu))⎦ |
| 075 | Jim  | thank you |
| 076 | NCA | 0chocolate whip it is0 ((writes down menu choice)) |
| 077 | Jim | Thank you (.) yes |
| 078 | NCA | No problem ((writing down menu choice))  |
| 079 → | NCA | ((lowers the menu and looks directly at Jim) it doesn’t come out quite clearly but I can still tell what you mean ((smiles))= |
| 080 | Jim | =((Laughing) ah:: it’s getting worse and worse and worse |
| 081 → | NCA | Ah: you’re nothing like you were when you came in though |
| 082 | Jim | No ⎡oh no ⎤ different  |
| 083 | NCA |  ⎣Still improved a lot ⎦ |
| 084 | Jim | I hope I can get better (.) anyway |
| 085 | NCA | Yea: ↓ you will |

There are three key themes: 1) The institutional activity of *menu choice*, realised through a series of question and answer sequences (e.g. l. 053), which may themselves feature repair sequences, occasioned by Jim’s extended jargon aphasia (ll. 054-056). Characteristic of this activity is the deployment of clip board / menu and pen by the NCA, and how the NCA (e.g. ll. 072; 074) divides gaze between Jim and the clipboard, sustaining their use in supporting shared understanding of the choice-making activity (e.g. ll. 063-064). While actually recording menu choices the NCA consistently turns the clip board away from Jim; 2) *Troubles talk*, related to Jim’s aphasia also features; in l. 058 Jim initiates a negative self-assessment, apparently occasioned by a previous turn characterised by extended jargon. In l. 079 the NCA initiates an evaluation of Jim’s speech, making the distinction between intelligibility and communicative effectiveness (“it doesn’t come out quite clearly but I can still tell what you mean”). On these occasions the NCA consistently lowers the menu and makes eye contact with Jim, with mutual smiles in a well-synchronised display of shared understanding. It is noticeable that the NCA’s evaluation of Jim’s speech is non-technical (ll. 059, 061, 079), and while not overly negative, is realistic (e.g. l. 061 “you have your clear days”; l. 081 “you’re nothing like you were when you came in”); 3) One example of *naturalistic conversation*, where Jim’s topic initial (l. 068 “I haven’t done that for a long while”) is briefly topicalised through the NCA’s self-disclosure in the following turn (“Na I haven’t had them for a while either I like them”).

**Discussion**

In this paper we have examined transfer of SC training into day-to-day practice in a case study of stroke rehabilitation, with a particular interest in barriers and enablers to implementing supported communication. Patient factors, institutional routines and environmental factors were shown to consistently produce constraints on effective SC implementation. However, individual and MDT approaches and problem-solving strategies were shown to have the potential to overcome some of these obstacles. Most staff claimed to have gained new awareness and skills as a result of training, and some reported increased confidence in use of SC strategies; skilful interactional practices were demonstrated, although we cannot prove that this was as a result of training. Clearly, participants entered the study individually and collectively with existing values, knowledge and communicative skills, embodied in their day-to-day dealings with patients and team members (Sarangi, 2010). Many staff demonstrated considerable ingenuity in enacting SC, presumably capitalising on or adapting past experiences. Other factors, such as staff power, authority and control, and missed interactional opportunities were observed but not reflected on or reported by staff.

Universally acknowledged barriers to communication with aphasic patients, such as time constraints, environmental factors, or caseload pressures were not targeted in training at team or systems-level. However, changes in institutional culture as discussed by Simmons-Mackie et al. (2007), and their implications for SC implementation were implied through individual accounts – for example, flexible team-working approaches and adaptations to individual routines. These were achieved on an ad hoc basis in the context of positive managerial support for the study. Despite this support it was extremely difficult to get staff released for training and / or other meetings. While the need to create positive rehabilitation environments (Wen Eng et al., 2014) was specifically addressed in training, and was clearly acknowledged by staff, intrusive noise and its impact on practice and quality of care (Dean, 2014) was raised in staff discussions both before and at the end of the study. Staff were apparently able to control intrusive noise on some types of occasion, but noise arising (paradoxically) as a result of institutional policy (e.g. timing of visiting hours) was clearly beyond individual control.

Nevertheless, there was evidence that SC values in foregrounding the person, and acknowledging the lived experience of stroke and aphasia had been absorbed by staff and incorporated into routine practice, with reported improvements in care quality achieved by taking time, “being there” for the person, prioritising aphasic patients’ needs, returning to “try again” and managing the environment. Some ways in which staff addressed patients’ need to voice feelings about ‘troubles’ – pain, loss or the emotional impact of stroke (Wen Eng et al., 2014) – were illustrated. Sequences were framed as ‘troubles talk’, but demonstrated some distinct characteristics. These, we argue exemplify a number of candidate mechanisms for successfully implementing SC, or otherwise, remembering that SC training foregrounded the importance of acknowledging the lived experience of the aphasic person (see Appendix). In *Time out for talk* the activity break and seating position perhaps enable Bob to shift footing (from ‘doing physiotherapy’ to ‘troubles talk’). Although the APR immediately empathises with Bob’s pain, she also exercises interactional power (Simmons-Mackie & Damico, 2007) through a display of expert knowledge, finally assuming control, with Bob in a passive role (Simmons-Mackie et al., 2004). As these authors point out, “it is a fine interactive line and extremely important distinction between facilitating the expression of ideas and taking control of the conversation away from the person with aphasia” (p. 123). In Extract 2 (*Conflicting demands in routine practice*), the PT is challenged to address Joan’s troubles talk. Moving between alignment to Joan’s initiation, communication repair and her role as educator, she misses the opportunity to topicalise Joan’s troubles or, more specifically, hopes for recovery. In “*I can tell what you mean*” the NCA manages shifts in footing (Jim’s and own) in skilful ways, that are embodied through displays of mutual smiles or laughter, and careful exclusion of the ‘institutional object’ (clip board / menu). While troubles are not explored in any depth, honesty, openness, gentle humour and compassion are evident. The authoritative power established through professional control (Talvitie & Reunanen, 2002) that is manifest in the other two extracts is not apparent here, and presumably the patient’s experience is very different on each occasion. Promoting communicative access in the context of other complex demands is extremely challenging (Simmons-Mackie & Damico, 2007), with the need to minimise the trouble, support participation, while (often) completing a technically challenging activity requiring full concentration. It is clear from this and many other studies that patients’ psychosocial needs (e.g. for acknowledgement, empathy, reassurance) can arise and be manifest at any time. The challenge for stroke professionals is to value the opportunity these occasions provide for emotional contact and support to enhance patients’ recovery.

Addressing patients’ questions or concerns, and providing information in accessible ways are fundamental aspects of professional practice in stroke care (Intercollegiate Stroke Working Party, 2012). Key to sharing “understandable information” is the ability to involve patients “from their standpoint; their unique conditions and abilities to express their perspectives” (Hedberg et al., 2007, p. 220). The concept of ‘place’ (Calkins, 2001) with generally understood and shared sets of rules and parameters may be helpful in understanding why – in a hospital setting – patients may not expect to take an active role or to have a voice in their rehabilitation. Staff here, however reported increased attention to the communication needs of aphasic patients, and by implication to the patient’s voice. They applied new verbal (e.g. question types) and non-verbal (e.g. gestures) skills that appear to have given many of them increased confidence, and a structure for reflecting on their own practices. Simmons-Mackie et al. (2007) also found that staff in rehabilitation and long-term care units reported increased awareness of communicative access, empathy and confidence, while McGilton et al. (2011) found staff reported acquiring new skills and practices, recognising the need for individualised approaches to patient care. In our study, staff overwhelmingly reported difficulties and lack of confidence communicating with patients with very severe (“global”) aphasia, or who had additional cognitive impairments, such as dementia. Only one of the nine patients in the McGilton et al. (2011) study is recorded as having “severe aphasia”; Simmons-Mackie et al. (2007) report a case of a severely aphasic resident in long-term care, whose inclusion was facilitated by a staff member using SC skills in an extended session. There is no doubt that including people with (severe) aphasia requires skilful and extended efforts by staff; the time and effort needed may not be routinely available in acute / post-acute settings, although staff reported ways of problem-solving some of these challenges.

In our observations of therapy, medication and menu rounds staff can be seen to deploy various strategies as they give information or address patients’ queries and concerns. Material features of the setting are enrolled or referred to for particular purposes (Heath & Hindmarsh, 2002), whether it is clarifying an activity sequence for Bob; medication information for Joan; or Jim’s menu choices; these are supported by gesture, embodied information (demonstration) coupled with co-ordination of eye-gaze or touch. As Simmons-Mackie & Damico (2007) underline, these phenomena are complex, requiring “rapid local management of … behaviours and their interpretations” (p. 93). Where patients with moderate-severe aphasia initiate inquiries or comments, staff involved in the consecutive delivery of therapy or care are naturally challenged to address these in timely and sensitive ways; they may capitalise on the local ecology, material resources, activity context and patient’s verbal / non-verbal contributions, effectively represent the patient’s voice (Simmons-Mackie & Damico, 2007; Simmons-Mackie et al., 2004; Goodwin, 1995); but equally, may decide (consciously or unconsciously) to curtail these sequences using a strategic division of labour where involvement of the aphasic person is reduced or rendered passive (Simmons-Mackie et al., 2004; Goodwin, 1995). Hedberg et al. (2007) found that patients were not invited to freely give their perspective. Here – within an admittedly limited sample – we found that opportunities for patients to ask, comment or be actively involved in their care arose frequently; importantly, these opportunities may have been opened up by staff, but also equally quite swiftly closed down or passed by unrecognised. Patient active participation has the potential to promote engagement, and increase the efficiency and effectiveness of rehabilitation interventions.

SC training and implementation strategies would clearly have benefitted from more detailed scenarios and the provision of on-site outreach and specialist feedback by the research team (NICE, 2007; McGilton et al., 2011). Supporting communicative access is a delicate and challenging process, and as we have seen implementation is complex and subject to a number of barriers. Some of these, such as patient or environmental factors are more apparent, while others, such as the effects of professional power and authority (Simmons-Mackie & Damico, 2007) tend to be implicit or go unnoticed.

**Conclusions**

This is the first study that we know of involving MDT staff perspectives and observation of practices of SC in post-acute in-patient stroke rehabilitation. The findings from analysis of rich and varied data provide insights that can inform the future practice of SC training and implementation.

The need for staff training in communication knowledge and skills is set out in stroke clinical guidelines (e.g. Intercollegiate Stroke Working Party, 2012), but resource implications and training methods are underspecified. Training should address systems-level practices and barriers (Simmons-Mackie et al., 2007), as well as individual knowledge and skills, with extended support for implementation, where staff – even the most experienced – would benefit from reflection on existing practices, advanced skills and feedback from an expert (SC ‘champion’) in the workplace. A local ‘champion’ would monitor staff turn-over and provide training refreshers. It is especially important that all staff take responsibility and recognise opportunities for patient active participation, with the expert knowledge to facilitate this. Follow-up training can also help build on staff motivation and confidence in working with people with severe aphasia. Support from and inclusion of senior staff / managers is vital, with a pressing need to attend to the material environment of post-acute rehabilitation settings.

The values implicit in SC which we have sought to introduce in this study are not just relevant for aphasic patients. Ready access (e.g. to information, resources) and inclusion (e.g. in decision-making, goal setting) should not be assumed for stroke patients without aphasia. A culture of access and inclusion, encouraging and supporting active participation can go a long way to addressing a passive rehabilitation culture (Wen Eng et al., 2014), potentially leading to improved standards of care and more efficient rehabilitation.

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**Appendix**

**Supporting communication for access & participation: summary of training workshop content (2-3 hour session)**

*Background*

* Communication / conversation in day-to-day life
	+ The role of communication / conversation in society and importance for individual identity etc
* Doing speaking & listening: the speech chain
	+ Neurological, physiological and acoustic aspects of speaking, hearing and comprehending
	+ Conversation as a collaborative achievement
* Speech, language and communication impairments after stroke
	+ Impact of nervous system pathology on language, motor control etc
	+ Basic information on aphasia, dysarthria, AoS, cognitive communication (pragmatics)
* Thinking about communication in context: rehabilitation & care

*Supporting communication for people with aphasia*

For each category below (i.e. All about the person; the environment etc.) key issues and their impact are identified and strategies put forward to address them

* + - All about the person
		- The environment
		- Supporting understanding
		- Supporting expression

For example: ‘All about the person’

Key issues: The lived experience not acknowledged: lack of awareness and focus on the person

Impact: Feels isolated; validity of experience not acknowledged; may not feel valued

Strategies: “imagine being...”; treat the person as trustworthy, interesting and sincere; acknowledge the person’s lived experience; empathise: be open to the person’s point of view & show you understand; help people feel included – “I understand it must be very confusing / frightening / frustrating etc”

*Supported communication: resources & skills*

* Issues, Resources and Skills

For example: Issue - Quantity of your talk: giving information; too much at a time; too involved / complex / technical

 Resources - support verbal communication with written information, diagrams, gestures, pictures etc.

 Skills - chunk talk / information; break up with pauses or ‘markers’; check understanding – repeat & rephrase as necessary; show; demonstrate; model

**Face-to-face training**

Each staff participant took part in a 20 min. ‘conversation’ with one volunteer with moderate aphasia, and then with one volunteer with severe aphasia. The volunteers were experienced Conversation Partner trainers. In order to make this training as clinically relevant as possible we asked participants to loosely base the interaction on a case history scenario. At the end of each 20-minute session, staff received 10-minutes feedback on their skills and use of resources; they were asked by the trainer to reflect on things they thought they had done well, and things they thought they could have done better. The trainer and trainee then discussed these points and completed a feedback sheet on use of skills and resources, which the trainee was encouraged to keep.

**Post-intervention focus group / interview topic guide**

1. *Access to resources for SC*

Resources used in practising SC – can you identify and describe their use/impact

Physical; environmental; colleagues; Pocket Guide; SCIP-R Refresher; a patient’s partner, friends, neighbour

1. *Applying knowledge and skills in day-to-day practice*

What enables you to put SC into practice on the ward; what is a barrier to putting SC into your practice

1. *Actions, skills and feelings in practising SC*

When you incorporate SC in working with patients with aphasia

How does that make you feel; does it have an impact on your confidence | job satisfaction | sense of professionalism

If there have been occasions when you could not incorporate SC in working with PwA,

How does that make you feel; does it have an impact on your confidence | job satisfaction | sense of professionalism

If you cannot understand what a PwA is trying to communicate to you,

How does that make you feel; does it have an impact on your confidence | job satisfaction

Have you tried to access other resources (*e.g.,* colleagues; Pocket Guide) to help

1. *Time implications*

In a typical week,

How many times do you see a patient with aphasia (PwA); how long does each session with a PwA last; what types of interactions do you have OR what is the purpose of seeing a PwA; where do you see / interact with a PwA; at what stage(s) in a patient’s journey do you see him/her

When you are working with a PwA,

Does it take longer than a patient without aphasia; does SC mean that your interaction with a patient is longer / shorter; if using SC results in spending more time with a patient, how do you find the time; does that mean cutting back on other duties? If so, which ones

Does the time spent with a PwA change over the course of a patient’s admission

In what ways?

1. *Learning Logs*

Did the process of completing the Learning Logs

Help you to reflect on your practice of SC; bring to mind other aspects of working with PwA; help you to consider any changes in your capacity to work with PwA

1. *Longer-term impact of using SC*

In what way(s) has learning about and using SC made a difference to you as you work with patients on the ward compared with your practice before you were trained in SC

**Transcription conventions**

⎡ links an ongoing utterance with an overlapping utterance or non-verbal action

⎣ at the point where the overlap/simultaneous non-verbal action begins

⎤ marks where overlapping utterances/simultaneous non-verbal actions stop

⎦ overlapping

eg. 01 PR how have you been since I last saw ⎡you ⎤

 02 AM |not so good |

 ⎣((AM shakes head))⎦

= marks where there is no interval between adjacent utterances

e.g. 01 DG did he really say that?=

 02 FB =yes

(.) indicates an interval of tenth of a second or less in the stream of talk

oh: indicates an extension of the sound or syllable it follows (more colons

prolong the stretch)

? indicates a rising inflection, *not necessarily a question*

! indicates an animated tone, *not necessarily an*

*exclamation*

but‑ indicates a halting, abrupt cut off to a word or part of a word

↑↓ marked rising and falling shifts in intonation are indicated by upward and

downward pointing arrows immediately *prior* to the rise or fall

stress underlining indicates emphasis

°no° degree signs indicate a passage of talk which is *quieter* than surrounding talk

TALK capital letters indicate talk delivered at a louder volume than surrounding talk

>talk< indicates sections of an utterance delivered at a greater speed than the surrounding talk

((nods)) text in double brackets represents a gloss or description of some

non- verbal aspect of the talk; may be linked to the relevant section of talk with large brackets (see above)

(dog) single brackets containing a word, phrase, or syllable count (indicated by

 number of Xs) where transcription is in doubt

// paraphasias or jargon transcribed using an IPA font between slashes

→ an arrow indicates an issue discussed in the analysis

Adapted from Jefferson, G (1984)