Social Participation for Older People with Aphasia: The Impact of Communication Disability on Friendships

Bronwyn Davidson, Tami Howe, Linda Worrall, Louise Hickson, and Leanne Togher

Purpose: The language changes experienced by a person with aphasia following a stroke often have sudden and long-lasting negative impact on friendships. Friendship relationships are core to social engagement, quality of life, and emotional well-being. The aims of this study were to describe everyday communication with friends for older people with and without aphasia and to examine the nature of actual friendship conversations involving a person with aphasia. **Method:** This naturalistic inquiry drew data from two phases of research: a participant observation study of 30 older Australians, 15 of whom had aphasia following a stroke, and a collective case study using stimulated recall to examine friendship conversations involving an older person with aphasia. **Results:** People with aphasia communicated with fewer friends and had smaller social networks. "Friendship" was a core domain of communication for older people and participation in leisure and educational activities was focal in everyday communication with friends. Case study data of conversations between three older people with aphasia and their friends illuminated features of "time," the role of humour, and friends having shared interests. **Conclusion:** Aphasia has been found to impact on friendships. A need exists for research and intervention programs to address communication with friends for older people with aphasia. **Key words:** *aphasia, communication partners, conversation, friendship, qualitative research, social participation, stroke*

Sudden admission to hospital following a stroke is accompanied by encounters with a range of health professionals, hospital visits from family and friends, and the experiences of communicating with people in the hospital environment. Approximately 30% of stroke survivors have aphasia,[1] a communication disability caused by brain damage that affects the language abilities of understanding speech, talking, reading, and writing. These language abilities are usually taken for granted, unless they are lost. For the person with aphasia, changes in language processing immediately impact on his or her daily communication and change the nature of communicative exchanges and the quality of interactions. Conversations, or attempted conversations, with family and friends provide early experiences of the impact of aphasia on social communication and relationships. The majority of stroke survivors with aphasia are left with their communication disability for the remainder of their lives.

Assessment of the person with aphasia has traditionally included evaluation of a person's specific language impairments and of his or her capacity on selected language tests or communication tasks.[2–4] While the importance of a detailed knowledge of the person's neurological status and language skills is acknowledged, it is the impact of aphasia on social participation that

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occupies the lived experience of aphasia for the person and his or her family and friends. Current research has highlighted the importance of educating communication partners of people with aphasia,[5,6] yet there has been limited research on friendship communication when one of the dyad has aphasia.

Language has been described as the "currency" of relationships,[7] and friendship relationships are core to social engagement, quality of life, and emotional well-being for older adults.[8] Because of the importance of talking in friendship, people with aphasia and their friends find their encounters expose the language impairment before they know how to deal with it and that the ongoing presence of aphasia influences the quality and nature of their friendship interactions.[7] Research also documents changes in social networks and social inclusion after stroke, and there is evidence that the number and/or quality of social relationships diminish after the onset of aphasia.[9–11] Thus, the language changes experienced by the person with aphasia often have a sudden and long-lasting negative impact on friendships and hence a broader effect on the social fabric of the community. Aphasia's global effects on the living of ordinary life originate from the disruption of everyday communication.[12]

Why Is Friendship Important?

Friendship is an important dimension of social support. Rawlins[13] defines a friend as "someone to talk to, to depend on for practical and emotional assistance, and to enjoy spending time with."(p274) Friendships serve a different purpose than kin relationships, possibly because of their voluntary nature.[14,15] Also, friendships are an important, if not critical, component of positive quality of life, particularly for older people. A meta-analysis of 286 studies in older adults found stronger associations between contact with friends and subjective well-being than between family contact and subjective well-being.[16] Contact with friends is associated with reduced mortality[15,17] and positive health outcomes.[18] The support of friends positively affects a person's physical and psychological well-being, which recursively facilitates engagement in friendships in the first place, described by Rawlins[13] as a simultaneous cause and effect association between friendship and health status.

Why Is Friendship Important to Older People, Especially Those with Aphasia?

Friendships have a special significance for older adults[13] in that friends play an important role in the provision of emotional and informational support,[19] and retirement often leaves older adults with more leisure time to spend with friends and to participate in friendship activities. Friends help individuals to deal with sudden dramatic life-changing events[20] and therefore may offset some of the negative consequences of stroke and aphasia. In contrast, having few social contacts outside the immediate family was found to be the most important predictor of depression in chronic stroke survivors.[21] Alternatively, out-of-house social support (e.g., from friends) is associated with higher life satisfaction for individuals poststroke,[22] and social support is an important predictor of stroke outcome.[23] The problems associated with reduced social support can be magnified for people who have aphasia, because a communication disorder can make it difficult for people to ask for emotional and informational support. Depression is a common sequela with 62% of people with aphasia reporting depression at 12 months post onset.[24] In summary, having friends and social companionship has the potential to improve overall well-being and reduce depression for individuals with aphasia.

In addition to the impact of reduced friendships on the person with aphasia, spouses are also adversely affected by reduced social relationships and social isolation.[25] Furthermore, people with aphasia tend to depend on family members for social companionship increasing the responsibility and burden of care and potentially adversely affecting the well-being of caregivers.

Why Investigate Friendships for People with Aphasia?

Social isolation, loneliness, and depression are frequently cited consequences of aphasia.[7,26,27] A survey by the American National Aphasia Association found 90% of the respondents felt that

they were socially isolated, while approximately 70% felt that people avoided contact with them because of difficulties with communication.[28] In addressing the social isolation experienced by people with aphasia and in responding to the social participation needs of an increasing proportion of older people in our communities, further understanding of how friendships are maintained and acquired is indicated. Adams and Blieszner's conceptual framework of research in adult friendship[29] provides a guide for the study of the complex features of friendship. However, research is lacking on the impact of communication disability on the friendship dyad and on broader social networks. Research into the everyday communication of older people living in the community provides an initial step to examine friendship communication in the context of people's daily lives. Thus, investigation of the social participation of aphasic and nonaphasic older people living in the community provides a preliminary exploration of the impact of aphasia on friendship. This article reports findings from research that investigated the impact of aphasia on the everyday communication of older people with aphasia.[10,30,31] The purpose of this article is to report a subset of this data specific to communication between friends. This project aimed

- to describe everyday communication with friends for older people with and without aphasia, and
- to examine the nature of real-life friendship conversations involving a person with aphasia.

Method

Qualitative research methods were used in this naturalistic inquiry, which sought to record the real-life, authentic communication that took place in the daily lives of older people who lived in the community. Data were drawn from two phases of the research: Phase 1 involved a participant observation study and included analysis of a 5-day communication diary kept by 30 participants, and Phase 2 was a collective case study[32] that investigated conversation between friends from the perspective of three older adults with aphasia. Thus, this research drew on ethnographic methods[33] and provided a broad picture of the nature of daily communication between older people and their friends and a focussed examination of conversations between friends. The methodology will be described in relation to these two phases of the research program.

Phase 1

Phase 1 addressed the aim of describing everyday communication with friends for older people with and without aphasia.

Participants

Participants in Phase 1 of the research were 30 older Australians, all living independently in an urban community. Fifteen older people with chronic aphasia were recruited from rehabilitation units and community-based clinics. A matched group of 15 older people without aphasia were recruited from community groups and in response to advertisements for participants for research into healthy ageing. All participants were over 60 years of age and spoke English as their first language. All participants with aphasia had a cerebrovascular accident at least 6 months prior to the study and a diagnosis of aphasia by a speech pathologist and a Western Aphasia Battery (WAB)[34] Aphasia Quotient less than 93.8. Exclusion criteria included the presence of significant concomitant cognitive or communication disorders, such as dementia, severe dysarthria, or uncorrected moderate to severe hearing loss. The nonaphasic participants were matched with the older people with aphasia in terms of gender, age (±2 years), years of schooling (±2 years), and living situation (whether they were living alone or with others). People were excluded from the nonaphasic group if they had a history of neurological disorder or serious illness. Participant details are summarised in **Table 1**.

The mean age for the participants with aphasia was 71.60 years (range 63–80 years), and the mean age for the control group was 71.27 years (range 63–78 years). There was no significant difference between the mean age of the two participant groups ($t = 0.16$, $df = 28$, $p = .872$). The years of education for each participant group ranged from 7 to 15 years. The mean years of education for the

Table 1. Summary of participant characteristics for Phase 1

Older people with aphasia					Common characteristics		Older people without aphasia		
Participant no.	WAB score	Months post onset	Age	Years of school	Gender	Living situation	Participant no.	Age	Years of school
1	84.9	48	65	11	M	Family	16	67	11
2	88.9	46	64	12	M	Family	17	66	13
3	27.2	66	63	15	M	Family	18	64	15
4	55.7	34	73	9	F	Family	19	71	9
5	14.8	33	80	8	F	Family	20	78	10
6	30.4	77	78	10	M	Family	21	76	11
7	18.9	28	74	15	F	Family	22	75	15
8	48.3	113	73	7	M	Family	23	72	7
9	61.7	22	76	8	F	Family	24	74	8
10	46.7	10	77	12	M	Family	25	76	14
11	28.4	50	74	9	F	Family	26	73	10
12	41.3	46	64	10	F	Family	27	66	12
13	59.1	12	78	9	F	Alone	28	78	8
14	22.1	9	64	8	M	Family	29	63	10
15	90.1	38	71	8	F	Family	30	70	10
Mean	47.9	42.13	71.6	10.07				71.27	10.87
SD	25.31	27.70	6.02	2.49				5.05	2.50

Note: WAB = Western Aphasia Battery.[34]

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participants with aphasia was 10.07 years, and for the control participants it was 10.87 years. There was no significant difference between the years of education for the two participant groups (t = –0.88, df = 28, p = .387).

For the people with aphasia, the severity level of aphasia ranged from global to mild (Western Aphasia Battery[34]). All had aphasia following left cerebrovascular event and were between 9 and 113 months (9 years, 5 months) poststroke. Nine of the participants with aphasia had residual right hemiparesis; 3 used a wheelchair, while the other 12 were ambulant. None of the control group had significant restriction to their physical activity.

Data collection

In Phase 1, data were collected through participant observation and communication diaries collected by participants (often with assistance from a family member for the participants with aphasia).

Participant observation

Mason[35] states that the term *observation*, and in particular *participant observation*, is usually used to refer to methods of generating data that involve the researcher's immersion in a research setting and systematically observing dimensions of that setting. A key feature of participant observation is that the researcher seeks to enter into the social world of the participants and therefore establishes a role in that context.[36] The researcher's degree of participation can be located on a continuum from complete participation to minimal participation or that of complete observer.[37] In this research, the researcher took a "participant as observer" role, in that the observed were aware that data were being collected[38] yet the researcher participated in the daily activities that were usual for the participants during the observation period.

To explore the breadth and variety of the person's everyday communication, it was necessary to

observe the person over a substantial time period. Two researchers, both experienced speech pathologists, were engaged in data collection for the observational study. Prior to undertaking Phase 1, a pilot study of two participants with aphasia and two nonaphasic older people determined the feasibility of the observational schedule and coding sheet. The two researchers (the first author and a second researcher) also completed reliability checks of the initial coding of daily communication, communication partner, and places. Point-to-point reliability between the two coders was 92% for coding communication activity and 100% for communication partner and place of communication.

Each participant was observed on three occasions for a total of 8 hours in an attempt to gain access to that participant's natural everyday communication. The three observation periods of 2 or 3 hours were randomly chosen within a week's time frame. Participants were observed by one of two researchers. Field notes were made throughout the observational period. These notes provided a running description of the communication in which participants engaged, as well as setting the person's communication in context, including the presence and participation of other people. Thus communication with friends was recorded in field notes over the 8 hours of participant observation. Field notes included descriptions of the involvement of the participant observer in the everyday communication of the older people.

Communication diary

The use of a diary recording the daily communication of people with chronic aphasia has been reported by Code.[39] Diaries have also been advocated for data collection in a study of multilingual adults with aphasia.[40] As discussed by Code[39] in his use of diaries for the Social Network of Aphasia Profile, the success and reliability of diary records is dependent on the detail that is required and on how long people are asked to keep records. For this research, a structured diary was prepared for participants to complete on 5 consecutive days. Participants and/or their significant others recorded descriptions of daily communication under the headings of conversation, speaking or listening only, reading, writing/drawing, and other communication. Diaries also provided variable information on where the communication took place and on the person's communication partners. Entries provided valuable insights into older persons' descriptions of everyday communication (e.g., "had a chat," "phoned up for a gossip," "read a letter from a friend"). Diary entries were subsequently compared with the coding sheets.

Data analysis

This section briefly describes the analysis of the observational data and participant diary data. The process is best described as cyclical and multi-layered and is represented in **Figure 1**. Diagrammatic representation necessarily portrays separate stages; however the inclusion of arrows and description of a spiral portrays the interrelationships between stages and the cyclical nature of the process. A spiral is used to illustrate the iterative process of describing, classifying, and connecting data in qualitative analysis.[41]

Naturalistic inquiry is oriented to exploration, discovery, and inductive logic. As described by Patton,[42] inductive analysis begins with specific observations and builds toward general patterns. Categories and dimensions of analysis emerge from the observations and diaries, and the researcher seeks to understand the interrelationships among the observed phenomena. Mason[35] described ways to "read" qualitative data; including literal and interpretive reading of the data set. Reading the data literally involved a focus on describing the content or literal form of the data. Thus, a literal reading of the data underpinned the initial transfer of the field notes to coding sheets in that the researcher was committed to documenting what had been observed. Comparative analysis of data on the everyday communication activities and communication partners of older people with and without aphasia was part of this stage. The next cycles of analysis took the researcher into interpretive reading of the data involving construction of what the data meant and represented.[35] Thus qualitative analysis led the researcher to explore recurring regularities in the data and to allow the meaning of the content to emerge.[43,44]

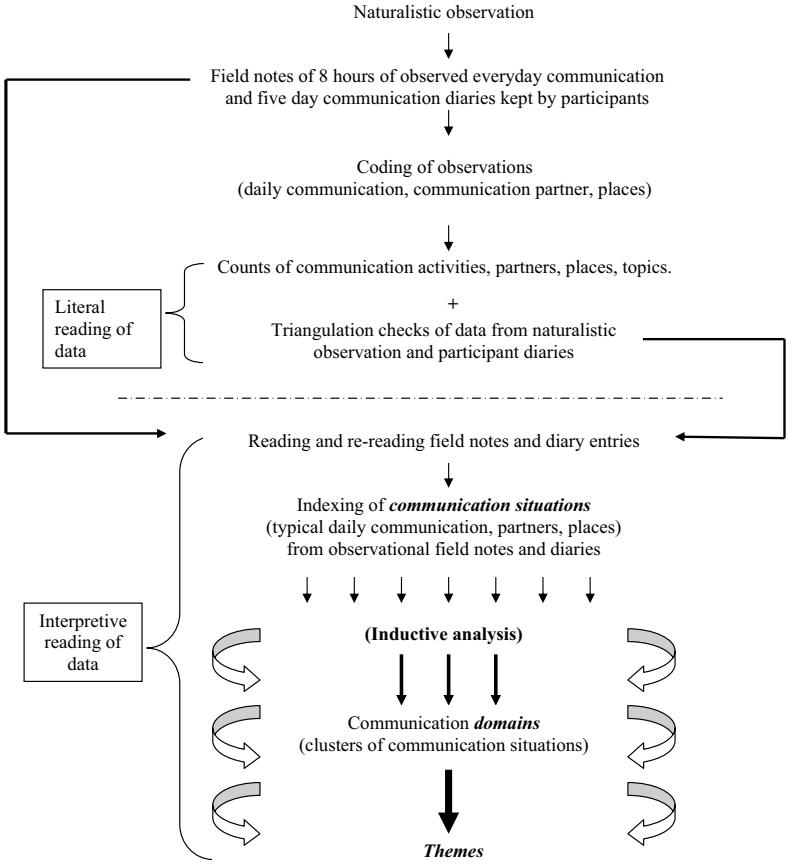

Figure 1. Flow diagram of the data analysis process for Phase 1.

Interpretive analysis in this study drew on the work of Hymes[45] and Spradley[37] including indexing of communication situations, the identification of common domains of communication, and themes relating to the nature of everyday communication in the lives of older people. These key units are presented in italics in **Figure 1**. Thus, in terms of the subset of the data analysed for this article, findings related to communication partners, typical communication situations and domains of communication, and themes within the recorded everyday communication of older people will be reported.

Rigour and reflexivity

Analysis of the content of diaries kept by participants and/or their significant others was used for triangulation of data obtained from naturalistic observation. Triangulation provides a means of testing one source of information against other sources.[38] The diaries described general activities compared with the detail of the observational schedules, but it was evident that both the diaries and the observations sampled the most frequently occurring, natural communication of each individual. The diaries also picked up on some aspects that may have been underrepresented in the observational data due to the presence of the participant observer. For example, making outgoing phone calls and reading were recorded more often in diaries than were observed while the researcher was present.

Throughout this phase of the project, the researcher (first author) kept notes, writing down thoughts and reflections on the observational experiences and on the cyclical nature of data analysis.[46,47] This personal log provided a record

Table 2. Participant characteristics for study of conversation between friends

Participant with aphasia	Gender	Severity of aphasia	Gender conversation partner (friend)	Context of conversation
Mary	Female	Moderate	Male neighbour	Afternoon tea in Mary's home (retirement village)
James	Male	Mild-moderate	Male friend	Morning coffee at a local sports club
Dorothy	Female	Severe aphasia and apraxia	Female friend	Conversation during craft group

of notes on methodological processes, analytical reasoning, and reflections on the experience of researching in real life and of becoming a qualitative researcher.

Phase 2

This second phase was a collective case study[32,48] that addressed the aim of examining the nature of friendship conversations involving a person with aphasia. Qualitative data from stimulated recall of video-recorded conversations of three friendship dyads including a person with aphasia were collected, analysed, and interpreted.

Participants

Purposeful sampling[33] was applied in the selection of three participants with aphasia from Phase 1 of the research. Two females and one male were recruited. Each participant with aphasia approached a friend who consented to participate in a video-recorded conversation. Details of participants and the context of video-recorded conversations are contained in **Table 2**.

Data collection

The time and place for video-recording a typical, everyday conversation was decided in consultation with the participants and on the basis of the interactions the person with aphasia had with friends as recoded in Phase 1. It was important to capture natural conversations so video-recording took place as the person with aphasia and his or her friend participated in their regular social activities. A small videocamera was mounted on a tripod and recorded approximately 15 minutes of conversation during a longer conversational interchange. The recorded conversations were viewed by each of the aphasic participants and a stimulated recall interview[31,49] elicited data on the thought processes of the participants with aphasia about the conversation with their friend.[31,49]

Procedure and analysis of stimulated recall

Video-stimulated recall[49] is an innovative procedure that allows participants to comment directly on the conversation as they review the video. Thus, the conversational interaction between friends was examined from the perspective of the person with aphasia. Within 3 days of the video recording, the participant with aphasia and the researcher met to review the recorded conversation on a television monitor and to undertake a stimulated recall qualitative interview. The conversation was played in its entirety and then replayed and paused at intervals to allow recording of the participant's thoughts and comments. Thus, a stimulated recall interview between the person with aphasia and the researcher was recorded and later transcribed verbatim. In the case of Dorothy, the lady with severe aphasia, descriptive field notes that described nonverbal and gestural responses and the use of visual scales on which she could rate her enjoyment or satisfaction with aspects of the conversation were included. Thus, a total communication approach informed the stimulated recall interview with Dorothy. Key themes in the stimulated recall interviews were identified through systematic qualitative analysis.[50]

Rigor and confirmability

Patton[42] states that having participants review the findings provides one approach to analytical triangulation.

> Researchers and evaluators can learn a great deal about the accuracy, completeness, fairness, and perceived validity of their data analysis by having the people described in that analysis react to what is described and concluded. (p. 560)

Following initial analysis of data and identification of themes from the stimulated recall interview, a summary of key findings was prepared for each participant with aphasia. The researcher presented these findings to the participants for verification and validation using communication strategies from Kagan[51] to enhance the understanding and expression of the participants with aphasia. During this process of member checking, the three participants confirmed the themes identified by the researcher and added comments that increased the researcher's understanding of the emphasis attributed to an issue by the participant.

Results

Phase 1: Observational study

Everyday communication with friends

During the 240 hours of observation, people with aphasia communicated with a smaller number of acquaintances, strangers, and friends than nonaphasic older people. The 15 older people with aphasia were observed in communication with 218 different people and the 15 older people without aphasia with 371 people. **Figure 2** details the differences between the two groups. Of particular note is that the total number of friends observed with the 15 aphasic participants was 20 in contrast to 52 friends for the nonaphasic participants. The differences in the number of acquaintances and strangers with whom participants communicated are also noteworthy. During the observation period, people with aphasia communicated with only 3 strangers and with 111 acquaintances, in comparison with the nonaphasic older people who communicated with 21 strangers and 220 acquaintances in the same observational period.

Details of places where participants communicated with their friends during the observation periods were recorded and analysed. Older people in this study communicated with friends at home, in their friend's home, in cars and on public transport, in

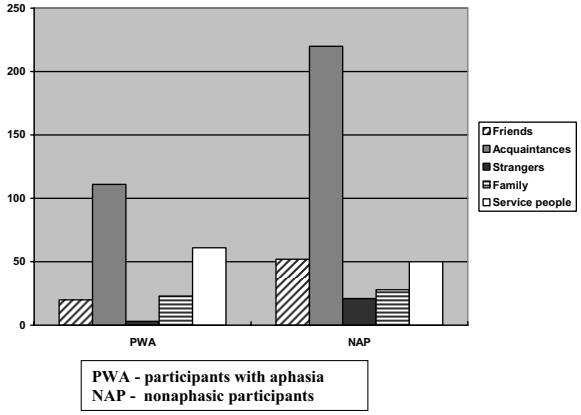

Figure 2. Comparison of number of communication partners.

the local neighbourhood, at restaurants and coffee shops, and at classes and community centres including therapy centres. Findings demonstrate the greater variety of places visited by healthy older people. Indeed seven of the nonaphasic participants were observed in the homes of friends, whereas none of the people with aphasia in this study visited friends during the observation period. Several participants were observed at their community groups, but the nature of the social participation differed for the two research groups. For those with aphasia, there were groups at day respite centres and/or therapy groups as opposed to the senior citizen clubs, educational classes, and sports and craft groups attended by the older people without aphasia.

Domains of communication

Domains of communication for older people living in the community were identified through interpretive analysis of the observational field data and participants' diaries. As described in **Figure 1**, a domain represents a descriptive cluster of everyday communication situations and encapsulates the generic contexts of real-life communication for older participants in this study. Five communication domains were revealed from these data on the everyday communication of 30 community-based older Australians: family, friendship, domestic life, leisure/education, and community services (both business and health

Table 3. Communicative situations within domains of "friendship" and "leisure and education" for older participants with aphasia and nonaphasic participants

Communication domain	Situations typical of older participants with aphasia	Situations typical of nonaphasic participants
Friendship	• Greets friends at stroke group/respite centre • Brief conversations with friends who visit at participant's home	• Extended discussions and story telling with friends over morning tea • Visiting and conversing with friends in their homes
Leisure and education	• Watching television • Joining in structured activities at respite centre or therapy group	• Attending adult education courses and conversing with other course participants • Talking about activities with friends at art/craft classes, bowls, or square dancing

related). In this study, the majority of communication situations were nested within the domains of family and friendship. The general domain of "friendship" was relevant to both groups (older people with and without aphasia); however there were fewer instances of social participation with friends for the older people with aphasia. Other communicative situations that included communication with friends revolved around leisure and/or educational activities (social encounters at local sports clubs, senior citizens' groups, hobbies and recreational activities, playing cards, attendance at educational classes). **Table 3** provides examples of typical communication situations within these two generic domains and illustrates differences in the typical communication situations for older people with and without aphasia.

The nature of everyday communication

The final spiral of interpretive analysis identified common themes in the nature of the observed real-life communication of older people. Five themes emerged for conceptualising the nature of social communication across the friendship domain. Thus, for the participants in this study, friendship communication focussed on establishing communication, planning and negotiating, engaging with others, participating in leisure and daily activities, and participating in incomplete communication. For example, there were situations in which older people participated in brief greetings and small talk and engaged in conversations with friends or other social exchanges, such as planning a place to meet or chatting over leisure activities. For the people with aphasia, there were increased occurrences of communication breakdown, resulting in incomplete communication. In reporting findings of social participation between older people and their friends, entries from diaries and field notes are used to illustrate the five emergent themes.

Establishing communication: This theme incorporates the frequent occurrences of greetings and extended greetings. It was of relevance that greetings occupied a significantly greater proportion of the everyday communication activities of older people with aphasia compared with nonaphasic older people.[10] In the following examples from older participants in this study, pseudonyms are used for participants' names.

> Diary entry, participant 29: *Said hello to three neighbours.*

> Field notes, participant 7: Observation at participant's home - *Friend, June, arrived at the door, let in by husband*; *Dorothy greeted June.*

Engaging with others: This theme encompasses a large component of the everyday communication with friends observed by the researcher. Older people demonstrated their engagement in social communication through participating in conversations, acknowledging others, making comments, active listening, asking questions, and providing answers and information. The social chit-chat and gossip recorded in participants' diaries were evidence of naturally occurring engagement with others, either in face-to-face interactions or on the phone. Joking, humorous interchanges, and light-hearted conversation were also documented in the field notes. The function of social communication for relationship

building and social affiliation was highlighted within this theme. Different levels of engagement were evident ranging from a nonverbal level (e.g., communicating by facial expression, gesture, or touch in showing affection or offering comfort) to a high level of linguistic complexity (e.g., participation in an extended, abstract, and heated discussion regarding political ideologies or decisions made by the local council). Often the aphasic participants were observed to take a passive and predominantly listening role in group interactions and conversations in general. The smaller social networks of the people with aphasia and few telephone conversations, compared with the nonaphasic participants, were evidence of reduced social communication.

Examples from the participant data were as follows:

> Diary entry, participant 17: *Talked with Billy, Ray, Ken, Trudy, Louise over dinner and afterwards*.

> Field notes, participant 2: At a community-based aphasia group – *Will was talking with two friends over morning coffee. Talked about the cake, Oscars, movies, the author of* The English Patient *and plans for Easter*.

Participating in leisure activities, and other daily activities: This theme encompasses communication situations outside the person's home (e.g., talk at bowls, the races, craft group, group discussions at therapy activities, or on community walks). Older people with aphasia were observed to watch television alone or with family much more than their healthy older counterparts. They were observed to have limited involvement in sports or hobbies, whereas the nonaphasic older participants were observed participating with friends in a range of leisure activities in the community. Examples included:

> Diary entry, participant 18: *Spoke to people at square dancing and called square dancing reels*.

> Field notes, participant 11: A card game of "Hoy" at a Stroke Club in a community hall – *Nora was listening and watching cards as numbers were called out and then counted cards aloud with assistance from a friend.*

Planning and negotiating: Everyday communication with friends included plans associated with daily activities, explaining or informing, requesting assistance, ordering, and questioning. Writing was used by some participants in this regard (e.g., writing a shopping list for a friend). The typical communication situations for older people with aphasia and healthy older people were different. Aphasic participants did little writing and there were fewer occurrences of older people with aphasia initiating plans with friends. Healthy older people, on the other hand, were actively involved in directing others, organising their day, and making future plans inclusive of activities with friends. Examples of planning and negotiating were the following:

> Diary entry, participant 30: *Rang Pat to ask is she needed help to clean out Beryl's flat*.

> Field notes, participant 9: On veranda of participant's home – *Mary requested help from her friend to get her photographs*.

Incomplete communication: Communication was observed to be unsuccessful or incomplete in instances involving 11 of the participants with aphasia. Communication breakdown occurred with family, friends, and with people less familiar to the person with aphasia (including the participant observer).

> Diary entry by wife of participant 14: *Could not understand something he was trying to tell us*.

> Field notes, participant 3: In the participant's home – *S. tried to explain something about the compact disc player. Unsuccessful communication. S. utters "Bloody, bloody God almighty bloody!"*

Phase 2: Findings examining conversations between friends

The stimulated recall data illuminated the aphasic person's perspective on the nature of the conversation they had with their friend. In reporting findings from this study, quotes from two participants will be included (these include a pseudonym for the participant's name and the numbered conversational turn from the qualitative stimulated recall interview). Also a description of responses from Dorothy, the participant with severe communication disability, will illuminate ways in which a person with severe communication disability may participate in a stimulated recall activity. In relation to interactions with friends, analysis of interviews revealed three key factors.

The need for additional time to respond

The quotes highlight not only the "time factor" in conversational dyads but also the break in smoothness in the flow of the conversation.

> *You see it wasn't too bad really in in a way and um and he seemed to know what I was talking about, you know. Yes, only that I have to wait for a minute to get it.* (Mary /63)

> *Ah. It all depends what, what is the person…if they, if they will try to stay with the word with you……Others will say "oh, don't worry about it." And that goes me off. I don't like that, you know.* (Mary/186)

> *There is a time when much I'm, I'm going to skay…..say….is um……I can't get it out.* (James/102)

> *More silences, yeah…..because I went from there, I suddenly… couldn't answer anything.* (James/139)

The role of humour

Humour is identified by participants as an integral element in interactions with friends. The quotes provide an indication of the positive nature of humorous interchanges and also the limitation to humorous story telling experienced by a person with aphasia.

> *Yes, but I never seemed to worry about doing that…..It seemed to be always funny [laughter].* (Mary/103)

> James: *You can't tell the story as much, as jokingly as possible… yeah….it's a terrible thing*

> Researcher: *Is it?*

> James: *Terrible, yeah, awful. Still, it's life.*

> Researcher: *Mm.*

> James: *I've got to um….. intend to make it as fun as possible.* (James/181-185)

The importance of shared interests

In the following segment involving James and his friend at the sports club, there is evidence of social engagement and shared interests.

> *I had my coffee…..there. And he had his coffee, latte, and I bought him one and bought him another one and that's how it went.* (James/38)

> *Oh, he reads the paper, the* Courier Mail *and the* Australian *and I have talks with him and um….I've met another person, Dave. He was with Mark…*

> *And we chat about other things.* (James/50)

All participants identified effective and satisfying communication in terms of collaboration between them and their friend, of the other person understanding what they were talking about and giving them time to express themselves, and of the importance of humour. In particular, James and Dorothy indicated that meaningful interactions occurred when they were able to share about their life and interests. Expressions of enjoyment and satisfaction were associated with a conversation in which the person with aphasia felt connected with the other person and shared conversations on topics of mutual interest.

As described in the Method section, a total communication approach was required in seeking Dorothy's responses to the conversation that took place with her friend at a craft class. The researcher sought to understand her rating of satisfaction/enjoyment of the videotaped social communication and her evaluation of that particular conversation partner. Dorothy displayed an intent interest in viewing the video segments and in recalling the communication that took place. At various times, she smiled and looked concerned, interested, or agitated. In seeking Dorothy's feedback, the researcher included simple ratings, written choices, and questioning to assist in verification of responses. Visual scales were used; a ten face, unhappy-to-happy scale, for rating enjoyment of the interaction, and a simple visual analogue rating scale with endpoints "thumbs down/bad" to "thumbs up/good" for rating the communication. Dorothy was decisive in indicating points on a scale related to the communication she saw on the video. After viewing the video of friendship interactions at needlework, Dorothy rated her friend, Lyn, as 6.75 on the "bad/good" scale. With the aid of written choices, Dorothy indicated the communication about her tapestry was the most satisfying segment of the videotaped communication. Dorothy went on to pantomime a group of people talking and her being unable to contribute. Her clenched fist and teary eyes indicated the degree of frustration she experienced.

A supported conversation interview with Dorothy in response to her stimulated recall of the videotaped communication with her friend allowed Dorothy to evaluate and compare aspects of her usual social communication. Dorothy

rated communication associated with meaningful activities as most enjoyable. She also identified humour as an important component of satisfying communication. The researcher's field notes documented the complexities and limitations of conducting a stimulated recall interview with a person with severe aphasia. The use of rating scales and visual cues provided structure and scaffolding for the person's responses.

In summary, the core themes relating to friendship interactions to arise from the stimulated recall data were those related to accommodation of time for the person with aphasia, the use of humour, and the satisfaction of conversing about shared interests.

Discussion

The findings of this study have illuminated factors relating to the centrality of communication in friendship, the nature of friendship communication in everyday life, and the perspective of people with aphasia on their conversations with friends. The research explored the impact of aphasia on communication with friends through two distinct, though interrelated, phases of research. Through the lens of naturalistic inquiry, details of the everyday communication of older people living in the community were exposed. In a sense, the first phase painted a landscape of social participation and described the nature of everyday communication with friends for 30 older Australians, and the second phase painted portraits of the impact of aphasia on conversations for three older people and their friends.

By exploring the social communication of older people with and without aphasia, this study has highlighted that older people with poststroke aphasia communicate with fewer friends and have smaller social networks. In a study by Hilari and Northcott,[11] 30% of individuals with aphasia indicated that they had no friends at least 1 year after the onset of their communication disorder. Relatives indicate that friendships often end poststroke because friends do not know how to communicate with their family member with aphasia.[27] Furthermore, individuals with aphasia report negative changes in their interpersonal relationships after their stroke, with increased efforts required to make new friendships, a loss of means for making social contacts,[26,30] and reduced initiation of contact by friends.[52] Unlike family relationships, friendships do not involve prescribed roles and therefore require the participants to take more initiative.[53] The presence of aphasia can make it more difficult for people to initiate contact in friendships.[7,26]

The use of methods that drew on ethnographic investigation led to a number of layers of description of friendship communication. Friendship was confirmed as one of the core domains of everyday communication for older people living in the community. Also participation in leisure and educational activities was intertwined with everyday communication with friends. Analysis of the nature of everyday communication between friends in this study revealed communication for greeting friends and acquaintances, for engaging with others, for planning and negotiating, and for participating in social activities. It was through case study data that the personal experience of aphasic communication in friendship interactions was revealed and participants described experiences of satisfaction and dissatisfaction in communication with friends. The video recall activity provided a focus for participants to express their views on the impact of aphasia within a particular friendship interchange. Because talking is one of the core activities in friendships, people with aphasia and their friends experience communication breakdowns as the result of aphasic language difficulties.[54] Reduced smoothness of communication during interactions with a person who is considered close is associated with reduced satisfaction with the relationship.[55]

Conversations were the most common communication activity for older people in this research program.[10] Although older people with aphasia were observed to take a passive role in many observed conversations, participants in the case study discussed features of the conversation with their friend that either enhanced or diminished their enjoyment and satisfaction with the interchange. The relevance of negotiating and accommodating the "time factor" for language processing in communicative interchanges between friends was illuminated. The accounts

of older people with aphasia recorded during stimulated recall suggest that the impact of aphasia on their conversations is complex and variable and may be both frustrating and enjoyable. Their experiences point to the interrelationship between themselves and their communication partners and suggest the dynamic of the interaction may facilitate or inhibit ongoing participation and meaningful communication.[31]

Findings can be usefully discussed in relationship to the conceptual framework for friendship research,[29,56] which seeks to integrate sociological and psychological perspectives and situates friendship research at three levels—that of the individual, the friendship dyad, and within societal structural patterns and context. The current study provides preliminary data on daily communication with friends within the context of ageing and the changes that accompany living with aphasia after a stroke. We have demonstrated that further explication of the interactions of the friendship dyad (as described in the Adams and Blieszner's framework) can be achieved through exploration of conversations between friends.

The potential benefits of friendship to communication, to maintaining and developing a sense of identity, and to (re) connecting with life are relevant to intervention programs that seek to address the social participation for people with communication disability. Because aphasia has been found to impact on the ability of people to acquire and maintain friendships, there exists an ongoing need to understand and address those factors that promote engagement in friendship relationships and that facilitate social connectedness for people with aphasia and their friends. The importance of new friendships formed through therapy and community support groups was apparent in this study, and people with aphasia participated positively in groups that facilitated conversation and sharing of topics of common interest.

Research findings record fewer friends for the participants with aphasia. The consequences of a reduced social network are likely to be isolation and loneliness and additional reliance on family members and community workers. Studies on quality of life point to a positive link between social activities, the presence of supportive friends, and ratings of an older person's quality of life.[9,57,58] Thus, enabling the maintenance and development of meaningful friendships becomes a desired goal of intervention programs. As described by Rook,[59] most social support researchers have been interested in how social relationships facilitate adaptation to stressful life events and, thus, have emphasised the various types of assistance that people provide to distressed friends and family members, such as emotional and practical support. Yet social relationships are desired not only for the aid and security they afford but also because they provide opportunities for purely enjoyable interaction such as the pleasure of sharing leisure activities, trading life stories and humorous anecdotes, and engaging in playful, spontaneous exchanges. The provision of therapy that has a social communication focus holds promise in this regard.[60–63] Also, the importance of modelling natural social interaction for communication partners and providing communication partner training have been identified by those who promote a social model approach to working with communication partners of people with aphasia.[63–66] Implications of this research relate to the need for maintenance and development of positive friendships for the older person with aphasia and for community programs to embrace the challenge of providing conversation partner training for friends of older people with a communication disability.

Limitations

A criticism of participant observation centers on whether the presence of the observer (researcher) changes the situation and the phenomena under investigation. Although the purpose of the research and role of the researcher was explained prior to the observation period, there would have been value in obtaining feedback from participants on their perception of the impact of the observer on their everyday communication.

Another limitation of the study relates to the number of participants in both the observational study and in the case study phase. Caution is required in drawing conclusions. Because the intention of qualitative case study research is not

to generalise but rather to illuminate phenomena related to the particular case(s) studied, it is recognised that any application of the findings, beyond the scope of this study, must be made on the basis of the perceived relevance of the findings to other contexts and the contribution of the research findings to the knowledgebase on communication between friends in older age.

Future research

Extended inquiry specific to friendship interactions is now indicated. Further examination of friendship conversations of older people will shed light on the specific nature of interactions involving people with aphasia. For example, in typical close friendship interactions, there is equal opportunity for participants to speak and increased opportunity to challenge each other's opinions and contributions when compared to interactions with other communication partners, such as people in authority.[67,68] In interactions between less familiar people, it is expected there would be fewer opportunities to challenge, to engage in humour, to develop topics, and to discuss shared information. These features have not been analysed in the interactions of people with aphasia to date, with the notable exception of Ferguson[69] who examined repair trajectories in the interactions of participants with aphasia and their spouses compared to interactions with a neighbour. Once the nature of friendship interactions has been clearly elucidated, future research can focus on those features that facilitate positive conversations[66] and develop training for friends of people with aphasia. Findings from this research provide evidence of areas for future investigation, including the time required for optimal communication, the expression of humour, and the interactions that accompany shared activities.[31,70] Further investigation of friendship discourse has the potential to inform community programs that address social inclusion and education of both people with aphasia and their friends regarding optimal communication strategies.

Another area for future research lies in examining friendship from the perspective of both rather than just one of the partners in the dyad. An understanding of friendship changes and friendship communication from the experience of the friends of a person with aphasia has the potential to shed light on core factors necessary for sustaining and acquiring friendships with people living with aphasia following a stroke. This knowledge is required to advance an understanding of factors that relate to changes in friendship patterns in older age, the management of friendships, and prevention of social isolation and subsequent depression for people with aphasia.

The impact of qualitative changes in friendship relationships poststroke is not well understood, and investigation of the impact of friendship changes on a person's well-being and quality of life invites further investigation, particularly in light of findings that contact with friends and support of friends positively affect a person's physical and psychological health.[17,18]

Conclusion

Qualitative methods were provided for rich and systematic investigation of everyday social communication in older age, including the impact of communication disability on communication with friends. Findings illuminate authentic communication issues for the person living with aphasia after a stroke. The ultimate goal of maintaining, acquiring, and enjoying satisfying friendship relationships was highlighted. This initial research sheds some light on everyday social communication for people with aphasia and the impact of a communication disability on conversations between friends. Given the integral role of communication in friendship relationships, further research in this area is indicated. This information is required to develop programs that address social participation and quality of life for older people in our communities and to provide timely and appropriate services, inclusive of those with a communication disability and their friends.

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