

Communication Partner Training in Aphasia: A Systematic Review

Nina Simmons-Mackie, PhD, Anastasia Raymer, PhD, Elizabeth Armstrong, PhD, Audrey Holland, PhD, Leora R. Cherney, PhD

ABSTRACT. Simmons-Mackie N, Raymer A, Armstrong E, Holland A, Cherney LR. Communication partner training in aphasia: a systematic review. *Arch Phys Med Rehabil* 2010;91:1814-37.

Objectives: To describe the effects of communication partner training on persons with aphasia and their communication partners. Specifically the systematic review addressed 3 clinical questions regarding the impact of partner training on language, communication activity and participation, psychosocial adjustment, and quality of life for adults with aphasia and their communication partners.

Data Sources: Twenty-three terms were used to search 12 electronic databases (eg, PubMed, CINAHL, PsychINFO, PsychArticles, CSA Linguistics and Language Behavior Abstracts, Social Sciences Citation Index [Web of Science], SUMSearch, TRIP, EMBASE, REHABDATA, National Library for Health, Cochrane Database of Systematic Reviews) and the journal "Aphasiology." References from all relevant articles were hand-searched.

Study Selection: Two reviewers independently applied inclusion criteria to select potential relevant articles from the titles and abstracts of references retrieved by the literature search. The full text of the remaining articles was reviewed by a 5-member panel, resulting in a corpus of 31 studies that met the final inclusion criteria.

Data Extraction: Two independent reviewers extracted the descriptive data related to the participants, the intervention, the outcome measures, and the results.

Data Synthesis: The 5-member review team by consensus classified the studies using the American Academy of Neurology system for classification of evidence (2004).

Conclusions: Evidence shows that communication partner training is effective in improving communication activities and/or participation of the communication partner and is prob-

ably effective in improving communication activities and/or participation of persons with chronic aphasia when they are interacting with trained communication partners. There is insufficient evidence to make recommendations related to the impact of partner training on persons with acute aphasia or the impact of training on language impairment, psychosocial adjustment, or quality of life for either the person with aphasia or the communication partner.

Key Words: Aphasia; Communication; Treatment outcome; Rehabilitation.

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APHASIA IS AN ACQUIRED language disorder that significantly affects the daily lives of survivors and their family members, creating negative consequences for social, vocational, and recreational activities, and often leading to social isolation, loneliness, loss of autonomy, restricted activities, role changes, and stigmatization.¹⁻⁵ The most common etiology of aphasia is stroke, although other causes such as brain trauma or tumor are possible.⁶ It is estimated that there are over 1 million people in the United States currently living with aphasia, and more than 100,000 Americans acquire the disorder each year.^{6,7} Although methods of estimating aphasia incidence vary, statistics are similar for other countries, with incidence estimates of approximately 40 of 100,000 Australians a year,⁸ 60 persons with aphasia per 100,000 hospital discharges in Canada a year,⁹ and aphasia caused by first-time ischemic stroke estimated at 43 per 100,000 inhabitants of Switzerland a year.¹⁰

There is extensive literature on treatment approaches for aphasia, and there have been several initiatives to review and evaluate the outcomes and quality of aphasia treatment research.¹¹⁻¹⁵ The results yield a consensus that persons with aphasia benefit from language treatment. However, social approaches to aphasia intervention have not been the target of these systematic reviews. "Social approaches"¹⁶⁻¹⁹ are defined by an explicit focus on personally relevant outcomes, such as meaningful life change, enhanced life participation, or improved quality of life. Although several interventions are subsumed under a social approach, the most prevalent form of socially oriented intervention in the aphasia literature is communication partner training.²⁰ "Communication partner training" is an intervention directed at people other than the person with aphasia with the intent of improving the language, communication, participation, and/or well being of the person with

From the Department of Communication Sciences and Disorders, Southeastern Louisiana University, Hammond, LA (Simmons-Mackie); Department of Communication Disorders and Special Education, Old Dominion University, Norfolk, VA (Raymer); School of Psychology and Social Science, Edith Cowan University, Perth, Australia (Armstrong); Speech Language and Hearing Sciences, University of Arizona, Tucson, AZ (Holland); Center for Aphasia Research and Treatment, Rehabilitation Institute of Chicago (Cherney), Physical Medicine and Rehabilitation, Northwestern University, Feinberg School of Medicine (Cherney), Chicago, IL.

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Reprint requests to Nina Simmons-Mackie, PhD, 580 Northwoods Drive, Abita Springs, LA 70420, e-mail: nmackie@selu.edu.

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List of Abbreviations

AAN	American Academy of Neurology
RCT	randomized controlled trial
NCDDR	National Center for the Dissemination of Disability Research

aphasia. Communication partners are people in the environment with whom the person with aphasia might interact, including, but not limited to, family members, friends, volunteers, or health care providers. Communication partner training is considered a form of environmental intervention because it involves the use of communication supports and strategies external to the person with aphasia.²¹ These supports are designed specifically to change the communication environment for the person with aphasia. A descriptive review of communication partner training was conducted by Turner and Whitworth,²² who described 9 published studies. The authors reported a paucity of information on the characteristics of the communication partners and limited analysis of the effectiveness of the intervention on partner communication. While the authors commented on the quality of research studies, no specific evaluation system was used.

Therefore, the purpose of the current project is to expand the descriptive results of Turner and Whitworth²²; evaluate relevant research studies; summarize the impact of partner training on language, communication activity and participation, psychosocial adjustment, and quality of life for adults with aphasia and their communication partners; and offer clinical recommendations based on the evidence.

METHODOLOGY

Three major clinical questions were formulated to address the impact of the intervention on each of the targeted research participants: the person with either acute or chronic aphasia and the communication partner (table 1). Because the stage of recovery—acute or chronic—influences recovery patterns,¹⁴ the clinical questions addressed aphasia chronicity (distinguished by mean time postonset ≤ 4 mo). Furthermore, in keeping with the World Health Organization's International Classification of Functioning, Disability and Health²¹ and the Living with Aphasia, Framework for Outcome Measurement,²³ subcomponents of each clinical question were developed to differentiate outcome measures representing language impairment (eg, standard aphasia tests of auditory comprehension, verbal expression, repetition, word retrieval), communication activity/participation (eg, functional use of language, conver-

sation ratings scales, participation in communication events), psychosocial adjustment, and quality of life. Questions also addressed maintenance of changes after completion of the intervention.

Literature Search

A systematic search of the aphasia literature identified studies that investigated communication partner training as a specific intervention for aphasia. Intervention was defined broadly to include communication skills training as well as educational or counseling programs directed at communication partners of people with aphasia. Communication skills training typically involved training the partner to use strategies or resources to support and facilitate the communication of the person with aphasia. Educational programs typically involved increasing knowledge of aphasia and related issues. Counseling programs involved explicit attention to psychosocial consequences of aphasia such as dealing with depression, anxiety, or feelings of isolation. Studies that trained partners to administer traditional language therapy in lieu of or in addition to the speech-language pathologist were excluded.

Twelve electronic databases were searched: PubMed, CINAHL, PsychINFO, PsychArticles, CSA Linguistics and Language Behavior Abstracts, Social Sciences Citation Index (Web of Science), SUMSearch, TRIP, EMBASE, REHABDATA, National Library for Health, and the Cochrane Database of Systematic Reviews. An additional search was performed within the journal "Aphasiology," and references from all relevant articles were examined to identify any other applicable studies. A total of 23 search terms related to communication partner training in aphasia were used as follows:

(partner OR family OR spouse OR support team OR volunteer OR staff OR significant other OR dyad) AND (conversation OR communication OR language OR interaction OR social OR pragmatics OR relationship) AND (therapy OR treatment OR intervention OR training OR coaching OR inservice OR education) AND (aphasia)

Studies were considered for review if they were published in a peer-reviewed journal between 1975 and April 2008, were written in English, and contained original data addressing 1 or more of the clinical questions. In addition, studies were limited to those that included adults 18 years of age or older with aphasia of any etiology. All empirical studies of communication partner training were included, regardless of study design. Therefore, in addition to group designs, quantitative, qualitative, and single-participant experimental research articles as well as case studies were included for review in order to capture the full range of treatment studies. Group designs included the following types of research: randomized controlled trials, nonrandomized controlled trials, case series designs, and single-group pre-post studies. Studies were classified as single-participant experimental designs only if the design was experimental in nature, involved time-series measures, and included experimental control. Qualitative research included only those studies that conformed to accepted qualitative or interpretive traditions such as ethnography, phenomenology, or grounded theory. Case studies were studies that did not involve experimental control and were descriptive in nature.

A total of 3519 articles were identified in the initial search as schematized in figure 1. The research librarian and 1 member of the review panel eliminated obvious duplicate citations and studies that were not written in English. Based on the abstracts, they also excluded studies that did not address communication partner training or persons with aphasia, were not treatment studies, did not contain original data, or were not peer-reviewed.

Table 1: Clinical Questions That Guided the Systematic Review

1. In persons with acute aphasia, what is the influence of communication partner training on measures of the following:
 - a. Language impairment?
 - b. Communication activity/participation?
 - c. Psychosocial adjustment/identity?
 - d. Quality of life?
 What intervention outcomes are maintained?
2. In persons with chronic aphasia, what is the influence of communication partner training on measures of the following:
 - a. Language impairment?
 - b. Communication activity/participation?
 - c. Psychosocial adjustment/identity?
 - d. Quality of life?
 What intervention outcomes are maintained?
3. For communication partners of people with aphasia, what is the influence of communication partner training on measures of the following in the partner:
 - a. Communication skills/ activity/participation?
 - b. Psychosocial adjustment/identity?
 - c. Quality of life?
 What intervention outcomes are maintained?

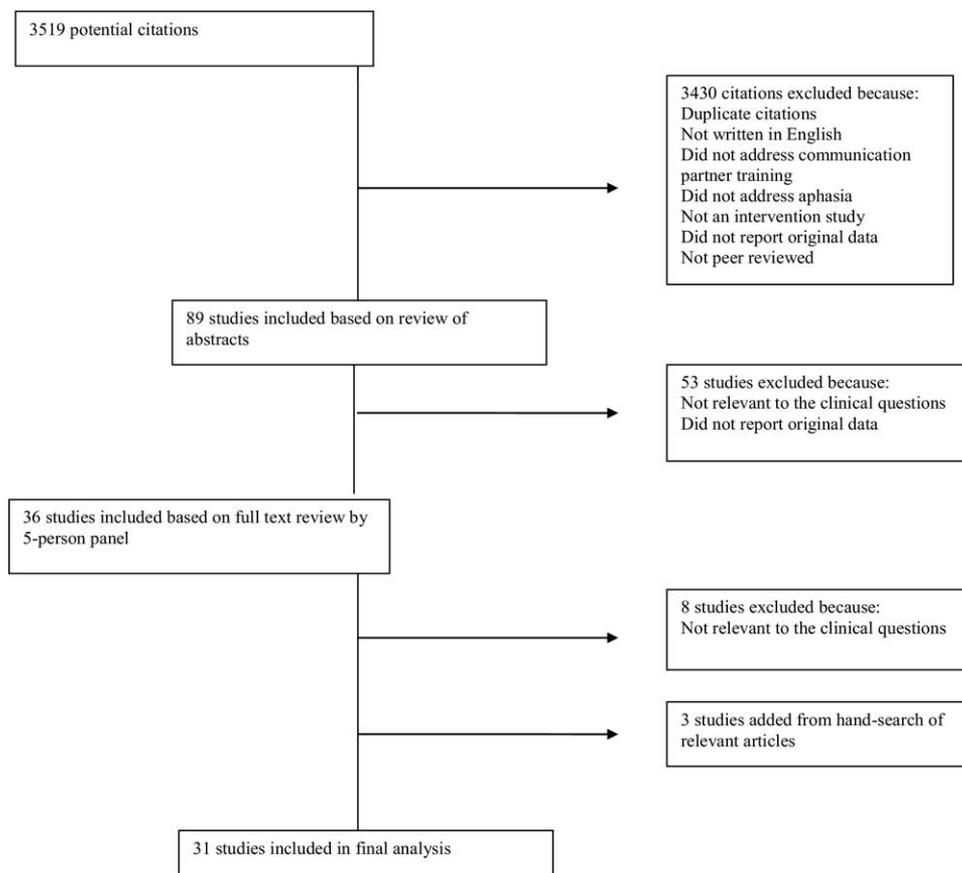


Fig 1. Process for identification of included studies.

Of the remaining 89 articles, 53 were rejected on review of the full text by the 5-member review panel because they were not relevant to the clinical questions or they did not report original data (a list of the rejected articles can be obtained on request). The remaining 36 articles were randomly assigned to 2 team members who independently reviewed and evaluated them. During this process, 8 articles were rejected from the review for failure to meet relevancy criteria, while 3 articles were added after hand-searching the articles' references. This resulted in a corpus of 31 studies that met the final inclusion criteria.

Descriptive Review

Each of the 31 articles was reviewed independently for descriptive characteristics by 2 panel members who extracted relevant information such as participant characteristics, intervention characteristics, outcome measures, and results. These data were collated and analyzed to provide a detailed description of the treatment studies. Note that 3 studies written by 1 of the authors were reviewed by 2 other panel members.

AAN Classification of Evidence

While many methods of evaluating the quality of treatment research have been offered in the literature,¹⁵ this report involves evaluation of the partner training research using the AAN Classification of Evidence system.²⁴ Our desire to use the AAN levels of evidence relates to the widespread use of this

system in medicine and rehabilitation and the availability of systematic and detailed procedures.²⁴ The full 5-member review team classified by consensus each study according to the AAN classification system. "Class" refers to the quality of research methods used in the reviewed research and consists of classes I through IV, with class I constituting the highest quality of research evidence. Results were translated into clinical recommendations using the procedures outlined in the AAN Clinical Practice Guideline Process Manual.²⁴ This system identifies 4 levels of recommendation (A, B, C, U) with A representing the highest level of recommendation (see end of Results section for additional description). The AAN also recommends wording to be applied to clinical guidelines such as "effective treatment" or "possibly effective treatment" based on results of the evaluation. Recommendations gleaned from the AAN guidelines were judiciously applied to the results of the partner training review.

RESULTS

Descriptive Review

The descriptive analyses of the 31 studies were organized according to study type and included 11 group designs,²⁵⁻³⁵ 7 single-participant experimental designs,³⁶⁻⁴² 5 qualitative studies,⁴³⁻⁴⁷ and 8 case studies.⁴⁸⁻⁵⁵

Research participants. Tables 2 and 3 provide detailed descriptions of the participants. Across the 31 studies, there were at least 352 communication partners and 319 people

with aphasia. Studies varied in the degree to which the persons with aphasia were involved in the actual partner training interventions; however, because persons with aphasia are the ultimate focus of this particular type of intervention, they are included here as "research participants." One study²⁸ did not clearly indicate the number of communication partners, while another study²⁵ did not specify the number of participants with aphasia.

Communication partners. Of the 352 communication partners, 241 were involved in group designs, while 24 and 68 were from single-participant and qualitative studies, respectively. An additional 19 communication partners were described in the case studies.

The relationship of the communication partners to the person with aphasia varied on a continuum of familiarity from long-standing family members to strangers. Twenty-five of the 31 studies, representing at least 234 communication partners, described them as caregivers or family members, while 6 studies, representing 118 communication partners, described them as acquaintances, volunteers, students, or strangers. One qualitative study focused on the service provider only (N=37) without including persons with aphasia.⁴⁶ Only 1 study assessed the quality of the relationship between the communication partner and the person with aphasia.²⁶

Most of the experimental studies (19/23) provided information about the age of the communication partners, while only 1 of the 8 case studies provided this information. Communication partners who were less familiar with the person with aphasia tended to be younger and often students, although 1 study³³ included retirees as communication partners. Communication partners who were family members tended to be older, often representing spouses. Sex was provided in 25 of the studies, with 137 (68.5%) of the 200 communication partners being women. Employment status was provided in 12 of the studies. Education was specified in only 6 of the studies, with most of these communication partners (80/81) having completed high school.

Persons with aphasia. Of the 319 persons with aphasia, 256 were represented in group designs, while 16 and 27 were represented in single participant experimental designs and qualitative studies, respectively. An additional 20 persons with aphasia were described in the case studies.

Most of the studies (30/31) provided information about the age of the person with aphasia. Mean age ranged from 49.5 years to 70 years in the group designs; actual age ranged from 36 to 80 across the other types of studies. In the 25 studies that provided sex information, 108 (62.4%) of 173 were men. Education was provided in only 6 studies; the person with aphasia usually had completed high school, although participants in 1 study were categorized as either literate (n=17) or illiterate (n=4).³⁰ Employment status prior to onset of aphasia was specified in only 6 studies. Similarly, handedness was specified in only 4 studies; most persons with aphasia (46/47) were pre-morbidly right-handed.

Etiology was specified in 22 studies, with the cause of the aphasia primarily stroke (210/221). One study reported inclusion of primary progressive aphasia.³² All studies provided some information about the time postonset, which varied from 1.25 to 178 months. Most typically, the person with aphasia had chronic aphasia with a duration of at least 6 months to several years. Exceptions included 1 study in which the persons with aphasia were described as being 1 to 4 months postonset.²⁵ In other studies, a total of 6 persons with aphasia were identified as less than 6 months poststroke.^{34,44,54}

Aphasia type was specified in 20 studies, while aphasia severity was specified in 24 studies. Aphasia type was categorized in a variety of ways, including expressive/receptive aphasia,

fluent/nonfluent aphasia, and the traditional classification of Broca, Wernicke, anomic, conduction, and transcortical aphasias. Formal test scores (eg, Western Aphasia Battery, Aphasia Quotients⁵⁶) were provided in 1 group study (mean \pm SD, 28 \pm 15), 3 single-participant experimental design studies (range, 21.3–85.4), and 2 case studies (54.4 and 66.5, respectively). The other studies used descriptive categories of mild, moderate, and severe to describe the aphasia. The presence of coexisting deficits was mentioned in 8 studies and included dysarthria, apraxia of speech, swallowing problems, change in cognitive status, and right hemiplegia.

Type of Intervention

Of the 31 studies examined, over half involved training both the person with aphasia and a conversational partner, while slightly less than half involved training conversational partners only (table 4). Partners personally related to the person with aphasia were the primary focus of intervention, although 5 studies^{29-31,39,46} addressed training of other groups, such as health care providers and volunteers. Eighteen studies involved group training, 10 involved dyad training, and 3 involved training the conversation partner alone. While the studies often had a number of facets (not always clearly detailed), 6 were predominantly devoted to education about aphasia (eg, workshops, lecture presentations, printed materials designed to increase knowledge), and 5 were devoted primarily to psychosocial counseling (eg, discussion of psychosocial issues, adjustment strategies). Twenty studies focused on direct training of communication strategies, with most of these involving role play or actual interactions between people with aphasia and their partners, with therapeutic feedback an integral ingredient. Intervention length ranged from 4 to 35 hours, typically presented in sessions 1 to 2 hours in length, with participants seen up to 4 times a week. The longest intervention lasted 20 weeks.³¹ Other interventions were presented as blocks in the form of either workshops^{27-30,46,53} or rural camps.⁴³ Most interventions took place in community and medical settings, although setting was not specified in half the studies. It should be noted that the more recent studies, beginning in the late 1990s, tended to incorporate more specific communication activity training, whereas previous studies focused more on general education and psychosocial support. It should also be noted that the communication training of volunteers^{29,31} and health care providers^{30,46} is a relatively recent form of intervention, reflecting an increasing focus on participation in a broader community rather than personal interactions and family relationships only.

Description of Outcome Measures

Outcome measures were coded into the categories of language functions/impairment, activity/participation, psychosocial well being, quality of life, and knowledge of aphasia (table 5). For the person with aphasia, language function/impairment measures were reported in only 7 of the 31 studies. Most commonly, these included results from standard aphasia assessment batteries such as the Western Aphasia Battery.⁵⁶ In contrast, 21 studies reported activity/participation measures for persons with aphasia. These included standardized tests such as the Communication Activities of Daily Living,⁵⁷ questionnaires or communication ratings, measures of participation in conversation, and calculations pertaining to the effectiveness of conversational discourse, often observed within the dyad with a communication partner. Psychosocial outcomes for the person with aphasia were reported in 10 studies. These included an array of questionnaires querying the participants on their emo-

Table 2: Participant Characteristics: Communication Partners

Reference	No. of CPs	Age (y)	Sex	Educ	Employ
Group Design: CPs					
Bevington ²⁵	30	Exp Mean, 45.5 (range, 16–73)	NS	NS	NS
		Exp 17 Con 13 Con Mean, 48.7 (range, 23–74)			
Draper et al ²⁶	39	Exp Mean ± SD, 64.05±11.5	NS	NS	NS
		Exp 19 Con 20 Con Mean ± SD, 59.95±14.8 (2 con dropped out)			
Hinckley and Packard ²⁷	36	NS	NS	NS	NS
		Exp 21 Con 15			
Hinckley et al ²⁸	Not clear	NS	NS	NS	NS
Kagan et al ²⁹	40	75% less than 30	87% F	47.5% High school 45% Bachelor's 7.5% Master's	70% Students
		Exp 20 Con 20			
Legg et al ³⁰	21	Mean, 25.4	M 8 F 13	Medical school	Students
		Exp 11 Con 10			
Lyon et al ³¹	10	Mean, 45 (range, 25–74)	M 1 F 9	NS	NS
Purdy and Hindenlang ³²	10	Mean, 64.6 (range, 22–79)	NS	Mean, 13.9y (range, 12–20)	NS
Rayner and Marshall ³³	6	Mean, 65.8 (range, 59–70)	M 2 F 4	NS	All retired; previous employment given
Rice et al ³⁴	12 met criteria but 10 participated (Exp 6 good attenders) (Con 4 poor attenders)	Range, 44–70	M 3 F 9	NS	NS
Wharborg and Borenstein ³⁵	37	M mean, 64 F mean, 58	M 16 F 21	NS	NS
Single-Participant Experimental Design: CPs					
Boles ³⁶	4	45, 52, 39, 52	M 2 F 2	NS	NS
Boles ³⁷	1	45	F	NS	Elementary teacher
Cunningham and Ward ³⁸	4	NS	M 3 F 1	NS	Retired railway worker, retired administrator, retired engineer, laborer
Hickey et al ³⁹	4	Range, 20–25	F 4	13y	Students
Hopper et al ⁴⁰	2	70 39	F 2	NS	NS
Nichols et al ⁴¹	8 (Family A=3 Family B=5)	Range, 13–45	M 4 F 4	NS	NS
Simmons-Mackie et al ⁴²	1	62	F	12y	Housewife

Table 2 (Cont'd): Participant Characteristics: Communication Partners

Relationship	Relation Length	Relation Quality	Comm Style	Comm Screen	Other
Relatives	NS	NS	NS	NS	NA
Caregivers	Exp (y) Mean ± SD, 38.58±14.82 Con (y) Mean ± SD, 30.16±20.91	Intimate Bonds Measure Exp Mean ± SD, 49.47±16.42 Con Mean, 54.0±12.43	NS	NS	English-speaking, self-rated health, doctor visits, current medications Actual relationship NS
Caregivers	NS	NS	NS	NS	Actual relationship NS
Most were caregivers/family members	NS	NS	NS	NS	NA
Volunteers (strangers)	0 (y)	NS	NS	NS	Proficient in English
Doctor-patient	0 (y)	NS	Medical interview	NS	
Strangers	0 (y)	NS	NS	Passed hearing and cognitive screen	NA
7 Spouse 1 Fiancé 1 Sister 1 Aide	Mean, 39.2y (range, 2mo-68y)	NS	NS	NS	English-speaking
Acquaintances	NS	NS	NS	NS	1-14y of experience volunteering but no previous training
Spouses	NS	NS	NS	NS	NA
Family member	NS	NS	NS	NS	No Dx of depression
Sister-in-law, live-in partner, daughter, husband	NS	NS	NS	NS	Cultural background: 1 Hawaiian-Portuguese, 1 Japanese-American, 2 Caucasian
Sister-in-law	NS	NS	NS	NS	No neurological or psych Hx
2 Husbands	NS	NS	NS	NS	NA
1 Wife 1 Partner					
Volunteers	0	No experience with aphasia	NS	NS	NA
Wives	NS	NS	For 1 partner: repeated questioning	NS	Hearing adequate for study
2 Fathers 4 Daughters 2 Sons	NS	NS	NS	NS	NA
Wife	40y	NS	NS	NS	Previously received counseling and education; had observed Tx sessions

Table 2 (Cont'd): Participant Characteristics: Communication Partners

Reference	No. of CPs	Age (y)	Sex	Educ	Employ
Qualitative Studies: CPs					
Fox et al ⁴³	19	Unknown in 7; Range, 39–76 for others	M 8 F 11	NS	NS
Lesser and Algar ⁴⁴	3	73, 49, 26	M 1 F 2	NS	Retired auxiliary nurse; manual worker; student
Pound et al ⁴⁵	4	51, 59, 61, 72	F 4	NS	At time of stroke: 1 phone sales 1 part time clerical assistant 1 solicitor but between jobs 1 retired in accounts
Simmons-Mackie et al ⁴⁶	37	NS	NS	NS	Worked in medical care
Sorin-Peters ⁴⁷	5	Range, 45–72	M 1 F 4	0–13y	NS
Case Studies: CPs					
Beeke et al ⁴⁸	2	NS	M 1 F 1	NS	NS
Boles ⁴⁹	1	NS	F	NS	NS
Boles and Lewis ⁵⁰	1	NS	F	NS	Artist
Booth and Perkins ⁵¹	1	NS	M	NS	NS
Booth and Swabey ⁵²	4	NS	M 2 F 2	NS	NS
Borenstein et al ⁵³	8	NS	M 3 F 5	NS	NS
Turner and Whitworth ⁵⁴	1	55	M	NS	Self-employed financial adviser
Wilkinson et al ⁵⁵	1	NS	M	NS	NS

Abbreviations: Comm, communication; Con, control group; CP, communication partner; Dx, diagnosis; Exp, experimental group; F, female; Hx, history; LTC, long-term care; M, male; NA, not applicable; NS, not stated; Psych, psychiatric; PWA, person with aphasia; Rehab, rehabilitation; Tx, Treatment; y, years.

tions, mood, and feelings of well being. Two studies reported outcome measures pertaining to knowledge gained by persons with aphasia about aphasia and related topics. No studies reported outcome measures for quality of life for persons with aphasia.

Likewise, an array of outcome measures was used to document the impact of training on the communication partners themselves. Of the 31 studies, 22 studies included activity/participation measures as outcomes, including several examining characteristics of conversations of communication partners when speaking in a dyad with people with aphasia (eg, words/minute, use of repair strategies, numbers of main concepts, increases in use of effective communication strategies, decreases in use of ineffective strategies, and improvements in the ability to reveal the communication competence of the people with aphasia [modified supported conversation analysis^{29,30}]). Also included as activity/participation measures

across the 31 studies were questionnaires and rating scales about the use of communication strategies. Similarly, 10 studies reported measures of psychosocial outcomes to determine how the intervention influenced feelings and the sense of well being for the communication partners. In contrast, only 1 study reported a quality of life measure for communication partners.²⁶ Three studies included outcome measures that primarily examined knowledge gained as part of the intervention.^{25,27,33}

Clinical Questions

Question 1 pertained to effects of partner training on persons with acute aphasia. One group design that included people with acute aphasia did not report outcomes for the person with aphasia.²⁵ Another group design reported the outcomes of 4 participants in acute stages of aphasia (2–4mo after stroke onset) in combination with 8 others with chronic aphasia.³⁴

Table 2 (Cont'd): Participant Characteristics: Communication Partners

Relationship	Relation Length	Relation Quality	Comm Style	Comm Screen	Other
5 Husbands 5 Wives 1 Sister 5 Daughters 3 Sons	3 Unknown Mean, 34.4y for others; range, 8y to life	NS	NS	NS	Years attending: 13=1y 4=2y 2=3y
1 Sister 2 Friends Wives	NS 1=50y 1=7y NS on 2	NS Some information given but not consistent	NS NS	NS NS	NA NA
Service providers	0	NS	NS	NS	Years of experience Acute mean, 6 Rehab mean, 15.1 LTC mean, 15.2
Spouses	Range, 10-44y	NS	NS	NS	NA
Spouse	NS	NS	NS	NS	NA
Wife	NS	NS	NS	NS	Bilingual interactions at home: Ilocano and English
Wife	NS	NS	Enjoy deep conversation	NS	NA
Brother	Lived away for 31y	NS	Tries to "teach" PWA	NS	NA
Brother Wife Husband Niece	NS	NS	NS	NS	NA
5 Wives 2 Husbands 1 Son	NS	NS	NS	NS	NA
Husband/partner	NS	NS	Equal, enjoyed conversation, humor	Intact cognitive/ hearing; a priori comm profile	NA
Husband	NS	NS	NS	NS	NA

Therefore, it is not possible to address questions pertaining specifically to acute aphasia.

Question 2 pertained to people with chronic aphasia. Data to address this question were presented in 26 of the studies. Among the 7 studies reporting language impairment outcomes, 5 reported improvements in at least some of the participants in the study. Positive outcomes were reported for activity/participation measures in 19 of 21 studies, with 3 studies reporting that gains were maintained. In the 10 studies reporting measures of psychosocial functions, 9 reported positive improvements in persons with aphasia, with 5 also noting that gains were maintained over time. Finally, no studies reported outcomes for quality of life for persons with chronic aphasia.

Question 3 pertained to communication partners of the person with aphasia. Among the 22 studies reporting activity/participation measures, 21 reported positive outcomes, 6 of which noted

that gains were maintained. Of the 10 studies reporting psychosocial outcomes, 8 noted improvements in psychosocial measures, with 3 of 4 noting that the gains were maintained. Only 1 study reported a quality of life measure for the communication partners, and there was no significant change reported.²⁶

AAN Classification

Table 6 displays the results of the AAN classification of research evidence for each of the 31 articles reviewed. While 2 high-quality class I studies were identified,^{29,30} the preponderance of research studies for partner training fell into class IV studies and were represented by a range of study designs including group designs, replicated single-participant experimental designs, qualitative research, and uncontrolled case studies. Table 6 depicts the distribution of studies by AAN class and type of study design.

Table 3: Participant Characteristics: People With Aphasia

Reference	N	Age (y)	Sex	Educ	Employ	Hand
Group Design: Persons With Aphasia						
Bevington ²⁵	NS	Mean, 60.7 (range, 41–78)	NS	NS	NS	NS
Draper et al ²⁶	39	Exp Mean \pm SD, 69.21 \pm 9.61 Con Mean \pm SD, 67.90 \pm 10.87	NS	NS	NS	NS
Hinckley and Packard ²⁷	36	Exp Mean, 56.2 Con Mean, 62	NS	NS	NS	NS
Hinckley et al ²⁸	60	Mean, 56	NS	NS	NS	NS
Kagan et al ²⁹	40	Mean \pm SD, 70 \pm 11	60% M	Mean \pm SD, 13 \pm 4	NS	R 39 L1
Legg et al ³⁰	21	Exp 49.5 (range, 23–75) Con 50 (range, 33–65)	M 14 F 7	17 Literate 4 Illiterate	NS	NS
Lyon et al ³¹	10	Mean, 68 (range, 54–86)	M 8 F 2	Mean, 14.3 (range, 12–18)	NS	NS
Purdy and Hindenlang ³²	10	Mean, 66.5 (range, 58–79)	NS	Mean, 13.9 (range, 12–20)	NS	NS
Rayner and Marshall ³³	6	Mean, 67.3 (range, 56–79)	M 4 F 2	NS	NS	NS
Rice et al ³⁴	12 met criteria 10 participated	Range, 47–66	M 9 F 3	NS	NS	NS
Wharborg and Borenstein ³⁵	22	M mean, 65 F mean, 59	M 14 F 8	NS	NS	NS
Single-Participant Experimental Design: Persons With Aphasia						
Boles ³⁶	4	47, 50, 79, 48	M 1 F 3	NS	Teacher, clerical worker, construction, social agency volunteer	All right

Table 3 (Cont'd): Participant Characteristics: People With Aphasia

TPO	Etiology	Aphasia Type	Aphasia Severity	Coexisting Deficits	Comm Style	Other
Range, 1–4mo	NS	NS	Mild–severe	NS	NS	NA
At least 12mo	Stroke	NS	Significant	NS	NS	NA
Exp Mean, 3.6y Con Mean, 3.7y	Exp CVA Con CVA, 1 TBI	NS	NS	NS	NS	NA
Mean, 4.2y Range, 1–15y	86% stroke 2% TBI 12% unknown	NS	NS	NS	NS	NA
Mean ± SD, 58±40mo Range, 12–178mo	95% L hemi stroke 5% R hemi stroke	75% severe Broca, 15% global, 5% Wernicke, 2.5% conduction, 2.5% transcortical	WAB AQ mean ± SD, 28±15	93% hemiplegic with motor speech problems	Ability to engage in conversation using some or all modes	Provided lesion site information on 39 subjects; mean length of attendance, 42mo; range, 1– 210mo; premorbid competent in English
Exp Mean, 23mo (range, 6mo–5y) Con Mean, 4y (range, 8mo–10y)	NS	Expressive 16 Receptive 5	Mild 3 Mod 8 Severe 10	Dysarthria 8 AOS 6	NS	NA
Mean, 43.5mo (range, 13–124mo)	NS	NS	Severity receptive language mean, 1.4; severity expressive language mean, 2.8 (on scale 1= minimal/mild and 3=severe)	NS	NS	NA
Mean, 35.2mo (range, 4–130mo) Range, 1–13y	NS	Nonfluent 5 Fluent 4 PPA 1 4 Expressive 2 Receptive- expressive	Mod–severe	AOS	NS	NA
Range, 2–23mo	NS	2 High-level expressive 3 Global 5 Conduction 2 Broca	NS	NS	NS	NA
Mean, 3y	NS	Varied but none global	None global	No Dx of depression	NS	NA
7mo 7y 12mo 12mo	All L stroke; details given of each	1 Broca 2 Anomic 1 Transcortical sensory	WAB AQ 66.3, 66.7, 64.4, 85.4	“Physically healthy at time of study”	CRUI scores given	No prior Hx of hearing, vision, psych problems

Table 3 (Cont'd): Participant Characteristics: People With Aphasia

Reference	N	Age (y)	Sex	Educ	Employ	Hand
Boles ³⁷	1	47	F	NS	Teacher	Right
Cunningham and Ward ³⁸	4	Range, 47–75	M 1 F 3	NS	NS	NS
Hickey et al ³⁹	2	72, 77	M 1 F 1	12y	NS	NS
Hopper et al ⁴⁰	2	76, 41	M 2	NS	NS	NS
Nichols et al ⁴¹	2	46, 51	F 2	NS	NS	NS
Simmons- Mackie et al ⁴²	1	62	M	NS	NS	NS
Qualitative Studies: Persons With Aphasia						
Fox et al ⁴³	16	Unknown in 7; range, 47–79 for others	M 7 F 9	NS	NS	NS
Lesser and Algar ⁴⁴	2	80, 49	2 F	NS	Retired seamstress, retired factory super- visor	Right
Pound et al ⁴⁵	4	NS	All M	NS	1 cab driver, 1 psycho- therapist, 1 NS, 1 retired	NS
Simmons- Mackie et al ⁴⁶	0	NA	NA	NA	NA	NA
Sorin-Peters ⁴⁷	5	Range, 48–77	M 4 F 1	1 <8y 3 12y 1 16y	NS	NS
Case Studies: Persons With Aphasia						
Beeke et al ⁴⁸	2	36, 73	M 1 F 1	NS	NS	NS
Boles ⁴⁹	1	38	M	NS	NS	NS
Boles and Lewis ⁵⁰	1	58	M	NS	Pilot	NS
Booth and Perkins ⁵¹	1	59	M	NS	NS	NS
Booth and Swabey ⁵²	4	Range, 45–72	M 2 F 2	NS	NS	NS
Borenstein et al ⁵³	9	Range, 39–62	M 7 F 2	NS	NS	NS
Turner and Whitworth ⁵⁴	1	53	F	NS	Nursery school teacher	NS
Wilkinson et al ⁵⁵	1	36	F	NS	NS	NS

Abbreviations: AOS, apraxia of speech; Comm, communication; Con, control group; CRUI, Communication Readiness and Use Index; CVA, cerebral vascular accident; Dx, diagnosis; Educ, education; Employ, employment; Exp, experimental group; F, female; Hand, handedness; Hemi, hemisphere; Hx, history; L, left; M, male; MCA, middle cerebral artery; Mod, moderate; NA, not applicable; NS, not stated; PPA, primary progressive aphasia; Psych, psychiatric; R, right; TBI, traumatic brain injury; TPO, time postonset; WAB, Western Aphasia Battery; WAB AQ, Western Aphasia Battery Aphasia Quotient.

Table 3 (Cont'd): Participant Characteristics: People With Aphasia

TPO	Etiology	Aphasia Type	Aphasia Severity	Coexisting Deficits	Comm Style	Other
7mo	Left basal ganglia	Broca	Mod-severe	Moderate AOS	NS	No prior Hx of hearing, seizure or psych problems
4-18mo	CVA	NS	Mod-severe	NS	NS	NA
37mo	Stroke	Broca	Severe	AOS	NS	NA
72mo				R hemiplegia		
3y	L temporal stroke;	Broca	WAB AQ 37, 21.3	NS	NS	Passed hearing screening
2y	L MCA stroke					
1y	4 Stroke	1 Nonfluent	Moderate	NS	NS	NA
2y	1 TBI	1 Fluent				
4y	L Stroke	Broca	WAB AQ 46	NS	NS	NA
Mean, 2.8y (range, 3mo-10y)	NS	NS	NS	NS	NS	NA
1.25mo, 40mo	L F-T infarct; left MCA rupture aneurysm and subarachnoid hemorrhage	Anomic	Mod-severe	No hemiplegia	NS	NA
12, 14, 14, 22mo	Stroke	NS	1 Very severe 2 Severe 1 Mod	3 Hemiplegia 2 Epilepsy; 1 Swallowing problem 1 Change in cognitive status	NS	NA
NA	NA	NA	NA	NA	NA	People with aphasia not included in study
8-63mo	Stroke	NS	Mild 1 Mod 3 Severe 1	NS	NS	NA
14mo	1 NS	1 Broca	NS	1 Mild dysarthria	NS	Both live with spouse
18mo	1 CVA	1 Fluent				
1.5y	Stroke	NS	Mod (WAB 54.4)	NS	NS	Bilingual: Ilocano and English
4y	Stroke	Broca	Mod (WAB 66.5)	NS	NS	NA
1y	Aneurysm	Fluent	Mod-severe	NS	NS	NA
5-6y	Stroke	2 Nonfluent 1 Fluent 1 Word-finding	1 Mild 2 Mod 1 Severe	NS	NS	NA
Range, 6mo-7y	8 Stroke 1 Trauma	4 Anomic 3 Nonfluent 1 Wernicke 1 Conduction	NS	6 R hemisensory 3 R hemiparesis 1 Limb apraxia 1 hemianopsia	NS	NA
4mo	Stroke	Nonfluent	Moderate		Equal participants	NA
14mo	Stroke	NS	Mild-mod	Mild dysarthria	NS	NA

Table 4: Intervention Description

Reference	Partner Trained	PWA Trained	Tx Length	Total Tx Amount	Intervention Setting	Intervention Description	Predominant Intervention Focus	Participant Focus of Training
Group Design								
Bevington ²⁵	Yes	No	NS	NS	NS	Education about aphasia: video, lecture (20min), booklet	Education	Group CP
Draper et al ²⁶	Yes	No	4wk long; 2-h sessions each week	8h	Public hospital rehabilitation setting	Included education, psychological support, stress management, communication skill training, group dynamics; run by SLP and clinical psychologist	Education	Group CP
Hinckley and Packard ²⁷	Yes	Yes	2d	2d	NS	Series of lectures/conference program for dyads included aphasia education, communication strategies, psychosocial issues etc.; no direct communication Tx	Education	Group CP + PWA
Hinckley et al ²⁸	Yes	Yes	3d	3d	NS	Lecture/conference series for family education to address psychosocial and knowledge needs of families and PWAs	Education	Group CP + PWA
Kagan et al ²⁹	Yes	No	1 d (5.25h) plus 1.5-h hands-on session	6.75h	Aphasia community center	Didactic workshop and experiential methods of SCA; included role play, evaluation exercise, and hands-on session with persons with aphasia	Communication	Group CP
Legg et al ³⁰	Yes	No		4h	NS	Group discussion and role play to learn about aphasia and communication strategies for medical interviews	Communication	Group CP
Lyon et al ³¹	Yes	Yes	Phase I 6wk Phase II 14wk	Phase I 12–18h Phase II 28–36h	Clinic community	Phase I: volunteer CP trained to communicate with PWA Phase II: CP facilitated participation in a home or community activity	Communication	Dyad
Purdy and Hindenlang ³²	Yes	Yes	12wk	12h	NS	Adult learning principles applied to education and experiential communication training	Communication	Group CP + PWA
Rayner and Marshall ³³	Yes	No	3 × 3-h sessions	9h	Aphasia club	Didactic and experiential methods of SCA; included video observations and role play	Communication	Group CP
Rice et al ³⁴	Yes	No	Weekly 2-h sessions	24h over 12wk	Medical setting	Structured educational program; information and emotional support	Education	Group CP
Wharborg and Borenstein ³⁵	Yes	Yes	NS	NS	NS	Family therapy to address depression, social isolation and affective issues	Counseling	Group CP + PWA
Single-Participant Experimental Design								
Boles ³⁶	Yes	Yes	7wk 2 × 1-h sessions/wk	14h	NS	Conversational coaching—skills training of the CP—specific skills identified from videos of conversation between PWA and CP; training done within the dyad	Communication	Dyad
Boles ³⁷	Yes	Yes	7wk 2 × 1-h sessions/wk	14h	NS	Conversational coaching— skills training of the CP—specific skills identified from videos of conversation between PWA and CP; training done within the dyad	Communication	Dyad

Table 4 (Cont'd): Intervention Description

Reference	Partner Trained	PWA Trained	Tx Length	Total Tx Amount	Intervention Setting	Intervention Description	Predominant Intervention Focus	Participant Focus of Training
Cunningham and Ward ³⁸	Yes	Yes	5wk	5 × 1.5h = 7.5h total	Home	5 sessions involving education about aphasia and generic strategies, plus individually tailored training and role play	Communication	Dyad
Hickey et al ³⁹	Yes	No	NS	3×/wk	Nursing homes	CP received training in total communication and practice using strategies	Communication	Individual CP
Hopper et al ⁴⁰	Yes	Yes	NS	10 sessions	Home	Conversational coaching—skills training of the dyad—specific skills identified from videos of conversation between PWA and CP; training done within the dyad	Communication	Dyad
Nichols et al ⁴¹	Yes	Yes	3mo	5 sessions	NS	Counseling/family therapy focusing on psychosocial issues	Counseling	Group CP + PWA
Simmons-Mackie et al ⁴²	Yes	No	4 sessions/wk	13 sessions for target behavior 1; 23 sessions for target behavior 2	NS	CP training—recognition training of 2 target behaviors—spouse interruptions and excessive use of convergent questions	Communication	Individual CP
Qualitative Studies								
Fox et al ⁴³	Yes	No	Three 2-h support sessions over 2d	6h	Rustic camp setting	Program designed to address psychosocial needs of caregivers, especially those related to communication and psychological well being; sessions were participant-driven	Counseling	Group CP
Lesser and Algar ⁴⁴	Yes	No	2mo	NS	Home	Provided with an “advice booklet” with pictures and examples of individualized conversational repair strategies based on analysis of conversations; booklet reviewed with caregiver who was encouraged to apply the strategies	Communication	Individual CP
Pound et al ⁴⁵	Yes	No	3 interviews plus weekly 2-h sessions for 6wk	12h	NS	Support course based on autobiographical info gathered from interviews; goals included group discussion and peer support, provision of relevant information, training of new skills, reduction of stress and anxiety associated with care-giving	Counseling	Group CP
Simmons-Mackie et al ⁴⁶	Yes	No	4+ mo	2-d workshop 4-mo follow-up	Aphasia center for workshop; acute care; rehabilitation and long-term care for follow-up	Teams of health care providers attended workshop on communicative access with role play to learn communication strategies; each team worked on access goals in their facilities with project support	Communication	Group CP
Sorin-Peters ⁴⁷	Yes	Yes	NS	4 sessions	Aphasia center	Adult learning principles applied to dyad-specific training to improve conversational interaction and address psychosocial issues	Counseling	Dyad
Case Studies								
Beeke et al ⁴⁸	Yes	Yes	NS	8h 12h	Home	“Interactional therapy”: individualized intervention for dyads based on conversation analysis and SPPARC program	Communication	Dyad

Table 4 (Cont'd): Intervention Description

Reference	Partner Trained	PWA Trained	Tx Length	Total Tx Amount	Intervention Setting	Intervention Description	Predominant Intervention Focus	Participant Focus of Training
Boles ⁴⁹	Yes	Yes	8wk	NS	University clinic	Conducting Conversation approach aimed at dyad, facilitating use of strategies by therapist observing interactions and providing feedback to couple	Communication	Dyad
Boles and Lewis ⁵⁰	Yes	Yes	4wk	8 sessions (2×/wk)	University clinic	“Solution Focused Therapy” aimed at dyad; emphasis on positive experiences, counseling, conversation using total communication; both participants present with therapist as coach	Counseling	Dyad
Booth and Perkins ⁵¹	Yes	No	6wk	12h (1 session/wk for 2h)	University clinic	Conversation training to target specific behaviors of the CP and increase knowledge of aphasia and strategies	Communication	Group CP
Booth and Swabey ⁵²	Yes	No	6wk	12h	NS	Group training on turn-taking and repair strategies	Communication	Group CP
Borenstein et al ⁵³	Yes	Yes	All day	5d	Boarding school	Group lectures on aphasia and psychologic aspects; direct language activities for individual and family with SLP; counseling with psychologist; social excursions	Communication	Group CP + PWA
Turner and Whitworth ⁵⁴	Yes	Yes	10wk	40h (2×/wk for a total of 20 sessions, 2h each)	Clinic	Based on SPPARC program	Communication	Group CP + PWA
Wilkinson et al ⁵⁵	Yes	Yes	NS	8h (4 sessions)	NS	Conversation therapy focused on reducing “other repair” by CP	Communication	Dyad

Abbreviations: CP, communication partner; NS, not stated; PWA, person with aphasia; SCA, supported conversation for aphasia; SLP, speech-language pathologist; SPPARC, Supporting Partners of People with Aphasia in Relationships and Conversation; Tx, treatment.

Table 5: Summary of Outcome Measures and Intervention Results for Communication Partners and Persons With Aphasia

Reference	Group	Outcome Category	Outcome Measure and Results	Change After Intervention*	AAN Class
Group Design Bevington ²⁵	CP	Knowledge	<i>Post Tx knowledge</i> : sig improvement for treated group only ($P<.01$)	Yes	IV
	PWA	NA	NA	Not done	
Draper et al ²⁶	CP	Activities/participation [†]	<i>Communication scale A</i> (caregiver use of functional strategies) and <i>Communication Scale B</i> (caregiver effectiveness with functional strategies): no sig change for either group <i>Measure of Social and Recreational Activities A and Quality of Life questionnaire A</i> (participation in life activities): no sig differences from preintervention to postintervention	No	IV
		Environment [‡]	<i>Social Support Questionnaire</i> (use of community support services): no sig differences from preintervention to postintervention	No	
		Psychosocial [§]	<i>General Health Questionnaire</i> : sig reduction in measured stress in Exp group $P<.006$; not in controls; effect size .29; improvements not maintained <i>Relatives Stress Scale</i> : no sig change (within-group analysis)	Yes	
		Quality of life	<i>Measure of Social and Recreational Activities B and Quality of Life questionnaire B</i> (measures of satisfaction): no sig differences from preintervention to postintervention	No	
	PWA	Activities/participation	<i>Barthel Index</i> : not reported <i>Frenchay Activities Index</i> : not reported	NS	
	Psychosocial	<i>Behavior and Mood Disturbance Questionnaire</i> : no sig differences from preintervention to post intervention	No		
Hinckley and Packard ²⁷	CP	Activities/participation	<i>Community Integration Questionnaire</i> : control: no difference; Exp: no difference <i>Frenchay Activities Index</i> : control: no diff; Exp: $P<.05$	Yes	IV
		Psychosocial	<i>McMaster Family Assessment Device</i> (scale of family function) control: no difference; Exp: $P<.05$	Yes	
		Knowledge	Post Tx rating of knowledge of topics: improved $P<.05$	Yes	
	PWA	Activities/participation	<i>Community Integration Questionnaire</i> : control: no difference; Exp: no difference <i>Frenchay Activities Index</i> : Control: no difference; Exp: $P<.05$	Yes	
		Psychosocial	<i>McMaster Family Assessment Device</i> : control: no difference; Exp: $P<.05$	Yes	
		Knowledge	Post Tx rating of knowledge of topics: improved $P<.05$	Yes	
Hinckley et al ²⁸	CP	Psychosocial	<i>McMaster Family Assessment Device</i> : control: no difference; Exp: $P<.05$	Yes	IV
Kagan et al ²⁹	PWA	Knowledge	Postintervention rating of knowledge of topics: improved $P<.05$	Yes	
	CP	Activities/participation	<i>MSCA</i> : Exp sig better than controls on acknowledging competence and revealing competence $P<.001$ Effect sizes: 1.38 for acknowledging; 5.7 for revealing competence	Yes	I
	PWA	Activities/participation	<i>MPCA</i> : Exp sig better than controls on social exchange/interaction $P<.023$ and message exchange skills/transaction $P<.001$ Effect sizes: .44 for interaction; .88 for transaction	Yes	
Legg et al ³⁰	CP	Impairment	<i>Modified Calgary Cambridge Observation Guide</i> (evaluates medical interviews): sig difference $P<.05$ and .01 on specific items	Yes	I
		Activities/participation	Modified <i>MSCA</i> : sig difference $P<.01$ <i>Interview Ratings</i> : sig difference $P<.001$	Yes	
	PWA	NA	NA	Not done	
Lyon et al ³¹	CP	NA	NA	Not done	III
	PWA	Impairment	<i>Boston Diagnostic Aphasia Examination</i> : no significant difference	No	
		Activities/participation	<i>Communicative Abilities of Daily Living</i> : no significant difference <i>Communication Readiness and Use Index</i> : Sig change postintervention $P<.05$ Postintervention <i>Rating of Expected Outcomes</i> : 2/3 met or exceeded goals	Yes	
		Psychosocial	<i>Affect Balance Scale</i> : no significant difference <i>Psychosocial Well-being Index</i> : sig change post $P<.05$	Yes	
Purdy and Hindenlang ³²	CP	Activities/participation	<i>Analysis of behaviors in conversation samples</i> : Number of appropriate behaviors increased Number of inappropriate behaviors decreased Postintervention <i>Questionnaire</i> regarding benefits: benefit ratings ranged from 3.4–4.6 on 5-point scale	Yes	IV

Table 5 (Cont'd): Summary of Outcome Measures and Intervention Results for Communication Partners and Persons With Aphasia

Reference	Group	Outcome Category	Outcome Measure and Results	Change After Intervention*	AAN Class
Rayner and Marshall ³³	PWA	Activities/participation	Postintervention <i>Questionnaire</i> re benefits: benefit ratings ranged from 3.7–4.8 on 5-point scale	Yes	
	CP	Activities/participation	MSCA: sig improvements from baseline 2 to postintervention; $P<.001$; gains maintained <i>Strategic Questionnaire</i> : sig improvement for trained volunteers $P<0.01$; no sig change for untrained volunteers <i>Factual Knowledge</i> : sig improved $P<.005$	Yes	III
	PWA	Activities/participation	M(APC): Sig improved from baseline 2 to post intervention; $P<.001$; gains maintained	Yes	
Rice et al ³⁴	CP	Psychosocial	<i>Goldberg General Health Questionnaire</i> : sig improved in exp group in social dysfunction $P<.01$; somatic scale $P<.01$; anxiety $P<.05$; <i>Depression scale</i> no change; nonattenders showed no change or worsening <i>Personal Questionnaire Rapid Scaling Technique</i> : sig improved in attenders: well being $P<.01$; decreased well being in nonattenders	Yes	IV
	PWA	Activities/participation	<i>Edinburgh Functional Communication Profile</i> : sig improved in exp group $P<.05$ <i>Functional Communication Profile</i> : sig improved in exp group $P<.05$ and control group $P<.05$	Yes	
Wharborg and Borenstein ³⁵	CP	Psychosocial	<i>Psychosocial questionnaire</i> : Pre-post median scores changed primarily in knowledge of aphasia	No	IV
	PWA	Psychosocial	<i>Psychosocial questionnaire</i> : Pre-post median scores changed in depression, isolation, impatience, and knowledge of aphasia	Yes	
Single-Participant Experimental Design					
Boles ³⁶	CP	Activities/participation	<i>Dyad communication ratings—words/min, utterances/min, words/utterance, conversation repairs/min</i> : Good progress noted on measures of verbal output and repair in 2 subject/dyads; in the other 2 subject/dyads, there was little change in verbal output and no change or decrease in self-repair	Yes	IV
	PWA	Impairment	<i>Western Aphasia Battery Aphasia Quotient</i> : improved more than 5 points in 2 subjects; did not change in 2 subjects	Equivocal	
Boles ³⁷		Activities/participation	<i>Communicative Abilities of Daily Living</i> : large change in 2 subjects <i>Communication Readiness and Use Index</i> : large change in 2 subjects <i>Dyad communication ratings—words/min, utterances/min, words/utterance, repairs/min</i> : Good progress noted on measures of verbal output and repair in 2 subject/dyads; in the other 2 subject/dyads, there was little change in verbal output and no change or decrease in self-repair	Yes	
		Psychosocial	<i>Psychosocial Well-being Index</i> : changes noted in all subjects	Yes	
	CP	Activities/participation	CHILDES: Improved Decreased speaking rate 53 word/minute to 46 word/minute Reduced number of words per utterance=7 to 6.1 words Total words decreased from 91% to 82% Repair in conversation: no major change in conversation repair	Yes	IV
	PWA	Impairment	<i>Western Aphasia Battery Aphasia Quotient</i> : increased from 66.3 to 72.3	Yes	
Cunningham and Ward ³⁸		Activities/participation	<i>Communicative Abilities of Daily Living</i> : increased from 92 to 117 <i>Communication Readiness and Use Index</i> : increased from 35 to 54 CHILDES: WPM=5.2 to 9.8 WPU=1.1–1.6; Contributions to conversation doubled Repair in conversation: occurrence of self-repair tripled	Yes	
		Psychosocial	<i>Psychosocial Well-being Index</i> : increased from 32 to 53	Yes	
	CP	Activities/participation	<i>Proportion of successful repair</i> : increased for ¾ dyads <i>Nonverbal communication</i> (ANOVA): no significant change <i>Visual Assessment of Self-Esteem</i> (ANOVA): no sig change <i>Hospital Anxiety Depression Scale</i> (ANOVA): no sig change	Yes	IV
	PWA	Activities/participation	Number of trouble sources initiated by PWA decreased Number of initiated repairs increased for ¾ of dyads <i>Nonverbal communication</i> (ANOVA): no significant change	Yes	

Table 5 (Cont'd): Summary of Outcome Measures and Intervention Results for Communication Partners and Persons With Aphasia

Reference	Group	Outcome Category	Outcome Measure and Results	Change After Intervention*	AAN Class
Hickey et al ³⁹	CP	Activities/participation	<i>Rating of dyad communication</i> : significant increases on all dimensions rated for all subjects (comfort, effectiveness, information, turn-taking, topic maintenance) $P < .01$	Yes	III
		Environment	<i>Analysis of multimodal behaviors</i> in conversation samples Graphic representation of increased use of multimodal communication with training	Yes	
	PWA	Activities/participation	<i>Analysis of "comprehensibility" in conversation samples</i> : Graphic representation of increased comprehensibility with CP training <i>Rating of dyad communication</i> (see partner results)	Yes	
Hopper et al ⁴⁰	CP	Activities/participation	<i>Main concepts co-constructed</i> : increase from preintervention to postintervention for both dyads; judges identified more main concepts at post intervention	Yes	IV
	PWA	Activities/participation	<i>Main concepts co-constructed</i> : increase from preintervention to postintervention for both dyads; judges identified more main concepts at postintervention <i>Communication Abilities of Daily Living-2</i> : sig improved for 1 subject	Yes	
Nichols et al ⁴¹	CP	Psychosocial	<i>Personal Questionnaire Rapid Scaling Technique</i> : Overall sig change $P < .05$	Yes	IV
	PWA	Psychosocial	<i>Personal Questionnaire Rapid Scaling Technique</i> : Overall sig change $P < .01$	Yes	
Simmons-Mackie et al ⁴²	CP	Environment	<i>Decrease in rate of occurrence of negative conversation behaviors</i> in trained, untrained, and generalization conditions; improvements maintained on follow-up; no effect seen on control behavior	Yes	IV
	PWA	Activities/participation	% <i>Verbal turns</i> : increased from 20% to 43% <i>Average content words/utterance</i> : increased from 1 words to 3 words	Yes	
Qualitative Studies					
Fox et al ⁴³	CP	Psychosocial	<i>Analysis of themes</i> from field notes, videotapes, interviews and focus groups: 5 outcome themes identified—sense of hope, view of support, state of being, acceptance, new community	Yes	IV
	PWA	NA	NA	Not done	
Lesser and Algar ⁴⁴	CP	Activities/participation	<i>Analysis of audiorecorded dyad conversations</i> : increased use of and success with repair strategies in conversation	Yes	IV
	PWA	Impairment	<i>Boston Naming Test</i> : no change <i>Psycholinguistic Assessment of Language Processing in Aphasia</i> : no change	No	
Pound et al ⁴⁵	CP	Psychosocial	<i>Hospital Anxiety Depression Scale</i> : no sig changes <i>Analysis of themes in interviews</i> : 8 improvement themes identified <i>Direct questions about course</i> : positive for all participants; better able to accept husband's communication difficulty; more flexible in dealing with aphasia consequences	Yes	IV
	PWA	NA	NA	Not done	
Simmons-Mackie et al ⁴⁶	CP	Activities/participation	<i>Analysis of Interview & Focus Groups</i> : increased communication supports in long-term care and rehabilitation settings; less change in acute setting	Yes	IV
		Psychosocial	<i>Analysis of Interview and Focus Groups</i> : improved feelings/attitudes toward PWAs in long-term care and rehabilitation settings	Yes	
Sorin-Peters ⁴⁷	PWA	NA	NA	Not done	IV
	CP	Activities/participation	<i>Analysis of video of dyad conversation</i> : improved repair, improved topic control, improved revealing and acknowledging competence <i>Couple Questionnaire</i> : reported improved communication	Yes	
		Psychosocial	<i>Semi-structured Interview</i> : resolution of psychosocial issues	Yes	
	PWA	Activities/participation	<i>Analysis of video of dyad conversation</i> : improved participation in conversation <i>Couple Questionnaire</i> : reported improved communication	Yes	
		Psychosocial	<i>Semi-structured Interview</i> : resolution of psychosocial issues	Yes	

Table 5 (Cont'd): Summary of Outcome Measures and Intervention Results for Communication Partners and Persons With Aphasia

Reference	Group	Outcome Category	Outcome Measure and Results	Change After Intervention*	AAN Class
Case Studies Beeke et al ⁴⁸	CP	Activities/participation	Dyad 1=CAPPA Dyad 2=CA and interview: improved use of conversation resources and strategies	Yes	IV
	PWA	Activities/participation	Dyad 1=CAPPA Dyad 2=CA and interview: improved conversational collaboration	Yes	
Boles ⁴⁹	CP	Activities/participation	<i>Discourse measures:</i> Decrease in overall frequency of repair Decreased guessing and undifferentiated repair Decreased requests for clarification	Yes	IV
	PWA	Impairment Activities/participation	<i>Western Aphasia Battery:</i> improved <i>Discourse Measures:</i> Increased utterances produced by aphasic speaker Decreased incoherent utterances by aphasic speaker Increased use of questions by aphasic speaker Fewer repair sequences Fewer guesses and undifferentiated repairs Fewer requests for clarification <i>ASHA Functional Assessment of Communication Skill:</i> improved scores	Yes Yes	
Boles and Lewis ⁵⁰	CP	Activities/participation	<i>Rating of dyad communication:</i> improved <i>Ratings of gesture use to support conversation:</i> increased	Yes	IV
	PWA	Impairment Activities/participation	<i>Western Aphasia Battery:</i> improved <i>ASHA Functional Assessment of Communication Skill:</i> improved <i>Ratings of gesture use:</i> increased <i>Rating of dyad communication:</i> improved	Yes Yes	
Booth and Perkins ⁵¹	CP	Environment	CA and CAPPA: Repair turns reduced from 78% to 29% Qualitative change in repairs by CP	Yes	IV
Booth and Swabey ⁵²	PWA	Activities/participation	CA: Qualitative change in interaction and topic initiation by PWA	Yes	
	CP	NA	NA	Not done	IV
Borenstein et al ⁵³	PWA	Activities/participation	<i>Repair analysis:</i> sig improved $P<.01$ 2/4 dyads Agreement of ratings and conversation improved $P<.01$	Yes	
	CP	NA	NA	Not done	IV
Turner and Whitworth ⁵⁴	PWA	Impairment Psychosocial	<i>Gothenburg Aphasia Test:</i> no data reported <i>Unstructured interviews</i> with classification into 6 psych categories, eg, anxiety, depression Depression rating: no data reported except indicated that 6/9 with depression preintervention; 4/9 with depression postintervention	Not stated Not clear	
	CP	NA	NA	Not done	IV
Wilkinson et al ⁵⁵	PWA	Activities/participation	<i>Conversation measures:</i> Overall faster resolution of repair % turns in collaborative repair decreased Length of repair decreased	Yes	
	CP	Activities/participation	<i>Pre-Post CA</i> of home conversations of dyad: Decrease in targeted negative behavior of CP	Yes	IV
	PWA	Impairment Activities/participation	Pre-post subtests of <i>Comprehensive Aphasia Test:</i> improved <i>Pre-Post CA</i> of home conversations of dyad: Improved	Yes Yes	

Abbreviations: ANOVA, analysis of variance; CA, conversation analysis; CAPPA, Conversation Analysis Profile in Persons with Aphasia; CHILDES, Child Language Data Exchange System; CP, communication partner; Exp, experimental; *MPCA*, Measure of Participation in Conversation; MSCA, Measure of Skill in providing Supported Conversation; NA, not applicable; Psych, psychiatric; PWA, person with aphasia; sig, statistically significant; Tx, treatment; WPM, words per minute; WPU, words per utterance.

*Yes=improvement demonstrated on at least 1 measure of outcome for the targeted domain; No=no improvement demonstrated on any measure of outcome for the targeted domain.

[†]Activities/participation refers to measures of participation in conversation or communication unless otherwise noted.

[‡]Psychosocial refers to measures of affective issues such as confidence, self-esteem, identity, and depression. Isolated ratings of communicative comfort or connectedness are included under measures of participation in conversation.

[§]Environment is used here to refer to measures of environmental support and/or behaviors of the communication partner designed specifically to change the communicative environment for the PWA.

Table 6: Number of Articles in Each AAN Class by Research Design

Research Design	Class I	Class II	Class III	Class IV	Total
Group designs	2	0	2	7	11
Single-participant experimental design	0	0	1	6	7
Qualitative	0	0	0	5	5
Case study	0	0	0	8	8
Total	2	0	3	26	31

Recommendations Based on AAN Levels of Recommendation

A final step was to translate the findings into clinical guidelines using AAN levels of recommendations.²⁴ Based on the classifications, but acknowledging the relatively small numbers of studies involved, we offer the following tentative recommendations related to the clinical questions posed at the outset (table 7).

Because of the lack of research, no recommendations can be offered for some of our questions. For example, insufficient evidence was available pertaining to the effectiveness of partner training in people with aphasia during the acute phase of recovery (during the first 4mo postonset). In addition, there was inadequate evidence to offer recommendations regarding the influence of partner training on the language impairment, psychosocial adjustment, or quality of life of people with chronic aphasia. The analysis of partner training research also suggests that there is insufficient evidence to support partner training as an effective method of improving psychosocial adjustment and quality of life for communication partners of people with aphasia.

Research evidence suggests that partner training is probably effective for improving communication activities and/or participation for people with chronic aphasia (even when these individuals are not included in the intervention) when communicating with a trained partner; thus, this approach should be considered for this population. In addition, some evidence exists that these training effects are maintained over time.

For the communication partners of people with aphasia, partner training appears to be an effective method of improving partner skill in supporting communication for people with aphasia, and these skills may be maintained over time. Therefore, this approach is recommended as a method of improving partner communication skills to facilitate communication in aphasia.

DISCUSSION

Issues Regarding Study Participants

In an earlier descriptive review of studies of partner training, Turner and Whitworth²² suggested that characteristics of communication partners were inadequately described. Results of the current systematic review concur. We found that sex was the single most frequent variable included across all types of studies. Interestingly, information about the age of the conversation partners was typically provided in the experimental studies but was lacking in the case studies in which more complete descriptive data were expected. Education and employment were provided relatively infrequently, even though these variables could have an influence on the outcomes of partner training.

Information about the participant with aphasia was typically more detailed than that of the communication partner, even when outcomes were reported for the communication partner. Although key variables such as age, sex, time postonset, and etiology were usually included, education and employment prior to the stroke were not always specified; neither was handedness. Type and severity of aphasia, basic variables that should be specified in all studies involving participants with aphasia, were provided in more than half of the studies. However, the variety of ways in which type and severity of aphasia were described reflects the lack of a standard method of describing these variables in the aphasia literature.

Of note is the importance of specifying variables related to the dyad, such as familiarity and length of the relationship between the communication partner and the person with aphasia. Familiarity ranged from spouses, siblings, and grown children who were highly familiar to the person with aphasia to health care providers and volunteers who were strangers. However, both familiar and unfamiliar partners demonstrated improvements after communication partner training. Clinically, it is likely that the choice of familiar versus unfamiliar partners for inclusion in intervention will depend on specific goals. For example, a goal involving improving participation of people with aphasia in their rehabilitation setting would likely involve training of unfamiliar partners (ie, rehabilitation team members). Conversely, a goal involving improving conversations with relatives would involve training of familiar partners (ie, family members).

The review suggested that a variety of communication partners can profit from communication partner training (eg, family members, health care providers, volunteers), and that skilled partners facilitate communication across a range of aphasia types and severity. Thus, it appears that the effects of partner training are relatively generalizable across types of partners and people with aphasia. However, this review does not provide guidance for clinicians regarding who are the best candidates for communication partner training. Rather, it is likely that training candidacy is a clinical judgment that depends on individual needs, wishes, and situations. For example, training of staff caregivers in a nursing home might be most appropriate for maximizing communication of residents with aphasia, while a home health therapist might involve immediate family in partner training.

Based on the systematic review, it appears that future studies should include more information about characteristics of the communication partner, the person with aphasia, and the dyad that could influence outcome of partner training programs. Such information permits comparison of results across studies and generalization of findings to the clinical setting. In addition, future research might specifically address questions about the effects of specific participant characteristics on outcomes. For example, does partner age or education influence outcomes from partner training? Further research into candidacy issues influencing partner training is needed.

Issues Regarding the Intervention

Interventions varied, with some focusing on the conversation partner alone and others focusing on the dyad. Both approaches demonstrated positive outcomes for communication. Studies involving various types of intervention (ie, counseling, education, direct communication training) demonstrated positive outcomes; however, studies involving direct communication training had higher AAN classifications,^{29-31,33,39} and this is reflected in our clinical recommendations. Although the reviewers classified the studies according to their "predominant" focus of treatment (ie, counseling, education, direct communi-

Table 7: Recommendations Based on Partner Training Articles Reviewed Using AAN Levels of Recommendation and Evidence

Clinical Question (Intervention, Outcome, and Population)	Available Evidence		Translation of Evidence to Recommendations
	Improved*	Not improved†	
AAN Strength of Recommendation Levels			
Q1. For persons with acute aphasia, what is the influence of partner training on:			
a. Language impairment	1 Class IV Improved 0 Not improved	Level U: Data are inadequate	No recommendation
b. Communication activity/participation	No evidence	Level U: Data are inadequate	No recommendation
c. Psychosocial	No evidence	Level U: Data are inadequate	No recommendation
d. Quality of life	No evidence	Level U: Data are inadequate	No recommendation
e. Maintenance	No evidence	Level U: Data are inadequate	No recommendation
Q2. For persons with chronic aphasia, what is the influence of partner training on:			
a. Impairment	3 Class IV Improved 1 Class III/1 Class IV Not improved	Level U: Data are inadequate and conflicting	No recommendation
b. Communication, activity/participation of PWA	1 Class I /3 Class III 17 Class IV Improved 0 Not improved	Level B: Probably effective	Should be considered
c. Psychosocial/identity of PWA	1 Class III/7 Class IV Improved 1 Class IV‡ Not improved	Level U: Data are inadequate or conflicting	No recommendation
d. Quality of life of PWA	No evidence	Level U: Data are inadequate	No recommendation
e. Maintenance of PWA	2 Class III/5 Class IV Improved 1 Class IV Not improved	Level C: Possibly effective	May be considered for maintaining improved communication with trained partner
Q3. For communication partners of PWAs, what is the influence of partner training on:			
a. Communication/activity/participation of the CP	2 Class I /2 Class III 14 Class IV Improved 1 Class IV Not improved	Level A: Effective	Should be done
b. Psychosocial/identity of CP	9 Class IV Improved 2 Class IV Not improved	Level U: Data are inadequate or conflicting	No recommendation
c. Quality of life of CP	None improved 1 Class IV Not improved	Level U: Data are inadequate or conflicting	No recommendation
d. Maintenance	2 Class III/8 Class IV Improved 1 Class IV Not Improved	Level C: Possibly effective for maintaining communication skill Level U: Data are inadequate or conflicting for maintaining psychosocial changes	May be considered for maintaining communication skills No recommendation for psychosocial

Abbreviation: PWA, person with aphasia.

*Improvement demonstrated on at least 1 measure of outcome for the targeted domain.

†No improvement demonstrated on any measure of outcome for the targeted domain.

‡Measure used for psychosocial outcome was a measure of behavior and mood disturbance (illness) that did not equate to measures used by other studies; not clear how to draw conclusions.

ation training), a number of studies combined elements of education, communication training, and counseling in varying degrees (as is typical of much aphasia therapy). Such a mixture appears appropriate from a clinical perspective yet could be problematic when attempting to tease out which are the most important and effective components of intervention.

Although most descriptions of intervention were acceptable, details of procedures were not always clear. For example, the period over which intervention was conducted, the setting for intervention (home, clinic, etc.), the nature of feedback pro-

vided during conversation training, and the extent of participation of both partners in a dyadic treatment were not always specified. This could be problematic when comparing studies, replicating interventions, and identifying future directions for intervention.

Issues Regarding Outcome Measures

Many different outcome measures were used across the 31 studies, and not all measures targeted the same behavior or

domain. While the most relevant outcome, communication, was addressed by most studies reviewed, the literature on partner training implies that there should be an impact beyond communication participation; that is, improved communication within a dyad should create overflow improvements in well being and quality of life for people with aphasia.²³ However, these effects have not been rigorously studied, and evidence to support these clinical beliefs is lacking. In addition, there were very few measures of actual participation in life situations such as changes in employment, leisure, daily activities, or community participation. A variety of measures were used to assess psychosocial changes associated with partner training. However, there was little consistency of outcomes measured within this domain. For example, 1 study²⁶ used a measure of the caregiver's perception of mental disturbance in the person with aphasia (showing no changes) and a measure of anxiety, stress, and depression for the communication partner (showing significant change); another study³¹ used the Affect Balance Scale (showing no change) and rating of psychosocial well being (showing significant change) for the person with aphasia after partner training.

One element that was clearly lacking across the studies was measures of quality of life. Most clinicians believe that communication partner training has the potential to affect the quality of life for both the person with aphasia and the communication partner.²³ However, 1 study that measured quality of life found that, after an educational intervention, there were no improvements for communication partners (as measured by a satisfaction with activities survey).²⁵ Quality of life is a complex and multidimensional domain that requires considerable future attention.^{58,59} Therefore, measurement of quality of life is an important component to address for patients with aphasia and their communication partners in future studies of communication partner training.

While the aphasia literature has not suggested that partner training should necessarily have an influence on the level of language impairment as measured by standard language tests, it would be interesting in future research to investigate this further. In addition, clinicians should consider reviewing and evaluating the corpus of measures available for assessing activity and participation, psychosocial factors, and quality of life. It appeared that many of the studies employed a "scatter shot" approach to measurement—that is, they adopted a variety of measures in hopes of capturing relevant outcomes. This finding agrees with surveys of outcome measurement in aphasia.⁶⁰ The scatter shot approach may be a result of the lack of comprehensive measures or batteries that have been proven relevant and/or psychometrically sound for the domains of interest. Thus, a systematic review of outcome measures might help define the range of behaviors that should be measured, help researchers and clinicians determine the best available measures for each domain, and ultimately contribute to the development of consistent batteries for measuring outcomes from intervention for aphasia.

Finally, although these results have clear clinical implications, studies have not examined the economic impact of communication partner training. Our results suggest that partner training should be considered as a relatively cost-effective method of obtaining positive communication outcomes for people with aphasia. Partner training does not preclude individual treatment of people with aphasia but might amplify the positive outcomes reported for such treatment. For example, studies suggest that workshops designed to train health care providers might result in improved communication participation of people with aphasia in their health care decisions and in understanding information.^{30,46} Such an approach would be

more cost-effective than working individually with each person with aphasia to improve communication effectiveness on particular tasks such as signing an informed consent or setting a rehabilitation goal.

Considerations Regarding the AAN System

Throughout the review process, there was considerable discussion regarding the applicability of AAN guidelines and traditional systematic review criteria to clinical aphasiology. For example, examination of the AAN classifications categorized by research design in tables 5 and 6 reveals an interesting array of results. Nine of the group designs (eg, nonrandomized controlled trials or case series designs) fell in lower AAN class III and class IV categories. Of 7 single-participant experimental designs, 1 was categorized as class III, while the rest were allotted to class IV. All interpretive or qualitative research was automatically classified as class IV because classes I, II, and III require traditional concepts of what constitutes experimental control. Thus, based on the AAN definitions, a mediocre RCT can be classified as stronger than an excellent, replicated single-participant experimental design. In addition, much can be learned about consumer perspectives regarding outcomes from qualitative research, yet these studies do not contribute to AAN clinical recommendations. This suggests the need to modify systematic reviews in behavioral fields such as aphasia rehabilitation to capture research quality more fully and/or to use additional quality indicators to ensure that studies are evaluated for a range of quality criteria and that studies are not ignored that contribute important information to clinicians in domains such as aphasia. A variety of reliable methods of evaluating the quality of treatment research have been published.¹⁵ In fact, the authors of this report have applied additional quality grading systems to the studies reviewed herein in an effort to reflect more fully the quality of research studies without the AAN bias toward type of study design. These data will be reported in a future article.

Another issue relative to the AAN classifications relates to the AAN Levels of Recommendation. While we felt confident with the recommendations made in this article, AAN guided recommendations are based entirely on the AAN classification. If the classification system is flawed, then questions arise regarding the trustworthiness of the resulting AAN recommendations. However, despite the limitations of the AAN system, it has been in widespread use for a wide range of health care conditions for a number of years. Based on a reading of many systematic reviews and a careful analysis of the corpus of partner training studies, the findings of this systematic review appear to be accurately represented in our recommendations.

At the outset, the review panel chose to apply the AAN system to all available research evidence in keeping with recommendations of the NCDDR.⁶¹ The NCDDR suggests that systematic reviews in rehabilitation capture the "best available evidence" rather than limiting the review to "best possible evidence" (ie, RCTs). As suggested in an NCDDR Webcast, "Some systematic review panels/parent guideline development organizations have raised the bar so high on the level of evidence required, that in their reviews no appropriate evidence is discerned, resulting in no recommendation." That is, available evidence is ignored when RCTs with large numbers of subjects are unavailable. Unfortunately, RCTs typical of drug trials and other medical procedures are not easily accomplished in rehabilitation disciplines such as aphasia intervention. First, large numbers of people with aphasia who are candidates for a particular intervention are rarely available; second, funding for large RCTs is not readily obtainable; third, blinding of thera-

pists and assessors often cannot be logically accomplished; and finally, it is difficult to implement a placebo treatment ethically.

Limiting systematic reviews and resulting clinical guidelines to large-scale RCTs results in an absence of guidelines for clinicians who are left to make clinical decisions based on their own judgments. By contrast, consideration of all available evidence allows reviewers to make judicious recommendations while also recommending further research as needed. For these reasons, the review panel felt that including all available evidence has resulted in a systematic review that is both comprehensive and clinically useful.

Acute Aphasia and Communication Partner Training

A significant gap in partner training research was the lack of information related to acute aphasia. Possible reasons might include difficulty recruiting persons at the acute stage of rehabilitation into treatment studies, the tendency of researchers to focus on participants past the spontaneous recovery period (ie, >3–6mo) and the penchant of clinicians for focusing on recovery of language in early stages postonset. It is unfortunate that we are unable to make recommendations to clinicians regarding early-stage intervention. We know from the literature that families are likely to be overwhelmed, possibly still in crisis, and not in a particularly strong position for learning new skills at this time.⁶² Nevertheless, it heightens the need for health care providers to be particularly capable in communicating information about aphasia and its course to families, and to furnish them with clear, accessible written information about aphasia, what can be expected, and how to seek help, support, and training in the future. Moreover, the health care equity movement endorses the right of people with communication disabilities to be included in their own health care, including discussions regarding diagnosis, prognosis, treatment decisions, consent, and short-range and long-range plans. Training of health care providers to be skilled communication partners and creating a communicatively accessible environment might be a particularly relevant approach for acute aphasia. Further research on the effectiveness of partner training in acute stages of aphasia is needed. The articles by Legg et al³⁰ and Simmons-Mackie et al⁴⁶ on intervention in health care might be useful training models in this regard.

CONCLUSIONS

Given the evidence in favor of communication partner training in aphasia, what is the importance of this finding? Much of rehabilitation involves altering aspects of the environment to minimize disability.²¹ Similar to wheelchair ramps, communication partner training involves provision of “communication ramps” as 1 way of providing communication access and minimizing communication disability.²⁹ The results of this systematic review indicate that a skilled communication partner is able to facilitate and support the communication of people with aphasia and should be considered as a method of providing environmental support and communication access.

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