

Research Round Up - Compiled by Paul Conroy

May 2014

Godecke, E. et al. (2014): A comparison of aphasia therapy outcomes before and after a Very Early Rehabilitation programme following stroke. *International Journal of Language & Communication Disorders* Volume 49, Issue 2, p.149–161.

Abstract

Background: Very early aphasia rehabilitation studies have shown mixed results. Differences in therapy intensity and therapy type contribute significantly to the equivocal results.

Aims: To compare a standardized, prescribed very early aphasia therapy regimen with a historical usual care control group at therapy completion (4–5 weeks post-stroke) and again at follow-up (6 months).

Methods & Procedures: This study compared two cohorts from successive studies conducted in four Australian acute/sub-acute hospitals. The studies had near identical recruitment, blinded assessment and data-collection protocols. The Very Early Rehabilitation (VER) cohort (N = 20) had mild–severe aphasia and received up to 20 1-h sessions of impairment-based aphasia therapy, up to 5 weeks. The control cohort (n = 27) also had mild–severe aphasia and received usual care (UC) therapy for up to 4 weeks post-stroke. The primary outcome measure was the Aphasia Quotient (AQ) and a measure of communicative efficiency (DA) at therapy completion. Outcomes were measured at baseline, therapy completion and 6 months post-stroke and were compared using Generalised Estimating Equations (GEE) models.

Outcomes & Results: After controlling for initial aphasia and stroke disability, the GEE models demonstrated that at the primary end-point participants receiving VER achieved 18% greater recovery on the AQ and 1.5% higher DA scores than those in the control cohort. At 6 months, the VER participants maintained a 16% advantage in recovery on the AQ and 0.6% more on DA scores over the control cohort participants.

Conclusions & Implications: A prescribed, impairment-based aphasia therapy regimen, provided daily in very early post-stroke recovery, resulted in significantly greater communication gains in people with mild–severe aphasia at completion of therapy and at 6 months, when compared with a historical control cohort. Further research is required to demonstrate large-scale and long-term efficacy

Alexandra Carling-Rowland et al. (2014): Increasing access to fair capacity evaluation for discharge decision-making for people with aphasia: A randomised controlled trial. *Aphasiology*, Volume 28, Issue 6, p.750-765.

Abstract

Background: Every competent person in Ontario has the right to decide on a discharge destination. If capacity to consent to such a decision is in doubt, it is evaluated. The current process is largely inaccessible to people with aphasia, there are no methods to help someone overcome communication barriers and demonstrate an understanding of information and an appreciation of the consequences of a decision. Health care professionals who evaluate

capacity also report significant problems in communicating with this population. Competent individuals with aphasia have erroneously been found lacking in capacity.

Aims: To develop and test the effectiveness of a communicatively accessible capacity evaluation tool with communication training supports; thus, allowing health care professionals to evaluate more equitably the capacity of people living with aphasia to consent to be admitted to long term care.

Methods & Procedures: The Communication Aid to Capacity Evaluation (CACE) was developed and validated. Thirty-two social workers were partnered with 32 competent participants with aphasia, and randomly divided into an experimental and control group. The social workers were blinded to the participants with aphasia's capacity. Both groups administered the current capacity questionnaire. The experimental group evaluators were subsequently trained to use the CACE and introduced to supportive communication techniques. Following a 2-week interval, this group administered the CACE, and the control group re-administered the current capacity questionnaire. The 64 evaluations were recorded, and independent speech language pathologists administered standardised assessments.

Outcomes & Results: Using the current capacity questionnaire one competent participant was found lacking in capacity, and one-third of social workers were unable to determine capacity. Following the introduction of the CACE with communication training, the evaluators in the experimental group were able to accurately determine capacity. Standardised measures showed a statistically significant difference between the two groups. The experimental group demonstrated improved communication skills [$F(2, 29) = 12.03, p = .002, d = 1.13$], and successful transfer of information increased [$F(2, 29) = 10.51, p < .003, d = .99$]. Participants with aphasia using the CACE reported an increased ability to communicate information ($t = 3.322, p = .000$) and decreased frustration ($t = 3.958, p = .002$).

Conclusions: The CACE was an effective capacity evaluation tool for people living with aphasia. Communication support allowed for increased transfer of information demonstrating both understanding and appreciation of a decision. Evaluators were better able to determine capacity. This challenging and vulnerable population's right to decide where and how to live was better protected.

Sorin-Peters, R. & Patterson, R. (2014): The implementation of a learner-centred conversation training programme for spouses of adults with aphasia in a community setting. *Aphasiology* Volume 28, Issue 6, p. 731-749

Abstract

Background: Conversational training programmes are increasingly being reported for partners of people with aphasia. The approach, formats used and ways in which these programmes have been evaluated vary. The literature to date provides evidence that conversation partner training can be effective, but it remains unclear as to what specific components contribute to successful outcomes. In this regard, the effectiveness of a learner-centred training programme was demonstrated in the author's previous work with five couples living with chronic aphasia. Results of this programme, which was delivered in a one-to-one format, included improvements in the quality of conversation for the couples who participated.

Aims: The aim of this study was to determine whether similar results could be obtained if the programmes' original format was modified to include a combination of both individual and

group sessions. An additional aim was to describe the content and contribution of both the types of sessions.

Methods & Procedures: Four couples living with aphasia participated in this study with a case series descriptive design. The training, delivered by a speech-language pathologist (SLP) and communicative disorders assistant (CDA), consisted of an 8-week communication training programme incorporating content and adult learning strategies similar to the original programme. The modified format included four individual and four group sessions. Couples were seen once a week and were encouraged to practice conversation strategies at home.

Outcomes & Results: Results were consistent with those previously reported using the one-on-one format and included an increase in spouses' use of supportive conversation strategies and an increase in the partner with aphasia's participation in conversation. Couples reported improved ability to discuss more complex topics, increased positive feelings about conversation and perceived the supportive communication strategies as being useful in their interactions at home. Additional positive effects were reported related to the group experience including the reinforcement of communication strategies learned in training sessions as well as mutual aid and peer support.

Conclusions: The use of a format incorporating both individual and group learner-centred training sessions demonstrated positive changes in attitudes and communication behaviours for couples in this study. The group process enhanced the value of the programme by promoting mutual aid and the validation of the personal experiences of each couple. These results have implications for SLPs' work with couples living with aphasia in the community and demonstrate the benefits of using an adult learning approach that includes both individual and group sessions.

Wiltshire, C.E. et al. (2014): The sentence production test for aphasia. *Aphasiology*, Volume 28, Issue 6, p.658-691.

Abstract

Background: Researchers and clinicians have long known that in aphasia, the ability to produce connected speech is poorly predicted by tests of single-word production. Connected speech is most commonly assessed using rating scales, in which the examiner rates the speech on various fluency-related and grammatical well-formedness measures. However, with this method, interrater and test-retest reliability can be poor, and since the intended utterance is not known, accuracy and appropriateness of the speech content is difficult to measure.

Aims: The aim of the present study was to develop and investigate the validity and usefulness of a new, freely accessible sentence production test (SPT) based on simple pictured event description.

Methods & Procedures: The SPT involves describing simple pictured events. The test pictures represent a range of sentence constructions and lexical items, which elicited high response agreement in healthy controls. The simple automatised scoring procedure generates both general and specific accuracy measures. This article describes the test construction and norming procedure and reports test data from 24 participants with aphasia.

Outcomes & Results: Interrater reliability for the scoring protocol was excellent. The overall sentence score was found to measure unique variance not accounted for by single-picture naming. It was unrelated to fluency measures such as speech rate. Specific scores, such as the closed-class score, measure partially overlapping, but qualitatively distinct constructs from other speech assessments.

Conclusions: The SPT is quick to administer, easy to score and can be used even when a person's speech is very limited. It provides a range of measures of sentence production that may prove informative for both clinical and research purposes.

Rankin, E. et al. (2014): Hearing loss and auditory processing ability in people with aphasia. *Aphasiology*. Volume 28, Issue 5, 2014 p.576-595.

Abstract

Background: Hearing loss can add to the linguistic deficits present in aphasia to make comprehension of speech difficult. Although some studies document a relatively high prevalence of hearing loss in adults with aphasia, many people with aphasia do not have their hearing tested. Self-reported disability measures offer a possible alternative to pure-tone audiometry when this service is not readily available.

Aims: This study aims to investigate the prevalence of hearing loss in a group of people with aphasia and to determine the usefulness of self-reported measures to screen for hearing impairment.

Methods & Procedures: Hearing ability was measured using pure-tone audiometry and five measures of auditory processing, which looked at speech perception in quiet and noise, for 21 individuals with aphasia recruited from a community clinic and 21 age-matched individuals without aphasia. The Speech, Spatial and Qualities of Hearing Scale (SSQ) and a brief questionnaire exploring whether they had experienced hearing difficulties were used to measure self-perception of hearing acuity. Differences in scores between the groups were analysed. Correlations and regressions were used to establish the relationship between self-perception of hearing and measures of hearing ability.

Outcomes & Results: Despite minimal impairment and a non-significant difference between performance on pure-tone audiometry for participants with and without aphasia, participants with aphasia performed significantly worse on measures of speech perception in noise than participants without aphasia. They also had a significantly greater degree of perceived hearing disability. Although SSQ scores were correlated with some behavioural measures for the participants with aphasia, the SSQ only predicted the hearing status and speech in noise performance of control participants.

Conclusions: The results suggest that the prevalence of hearing loss for people with aphasia (at least for this group) is no greater than the general population. However, they are significantly more affected in their recognition of speech in noise and experience greater disability in listening situations than people without aphasia. The latter problems were not predicted by pure-tone audiograms or sound-in-noise performance. The brief questionnaire was not effective in identifying hearing impairment, indicating the need for a regular hearing screen to ensure provision of the most effective rehabilitation. Ideally, the screen should include disability and behavioural measures, as our results suggest they cannot replace each

other. These findings should assist clinicians in setting realistic goals and delivering interventions in the most effective way for people with aphasia.

Piškur et al. (2014): Participation and social participation: are they distinct concepts?
Clin Rehabil March, 28, p.211-220.

Abstract

Introduction: The concept of participation has been extensively used in health and social care literature since the World Health Organization introduced its description in the International Classification of Functioning, Disability and Health (ICF) in 2001. More recently, the concept of social participation is frequently used in research articles and policy reports. However, in the ICF, no specific definition exists for social participation, and an explanation of differences between the concepts is not available.

Aim: The central question in this discussion article is whether participation, as defined by the ICF, and social participation are distinct concepts. This article illustrates the concepts of participation and social participation, presents a critical discussion of their definitions, followed by implications for rehabilitation and possible future directions.

Discussion: A clear definition for participation or social participation does not yet exist. Definitions for social participation differ from each other and are not sufficiently distinct from the ICF definition of participation. Although the ICF is regarded an important conceptual framework, it is criticised for not being comprehensive. The relevance of societal involvement of clients is evident for rehabilitation, but the current ICF definition of participation does not sufficiently capture societal involvement.

Conclusion: Changing the ICF's definition of participation towards social roles would overcome a number of its shortcomings. Societal involvement would then be understood in the light of social roles. Consequently, there would be no need to make a distinction between social participation and participation.
