NSW Speech Pathology Evidence Based Practice Network

Critically Appraised Paper: TREATMENT (CAP-T)

CLINICAL BOTTOM LINE:
-Small changes in communication achieved, time intensive program. Authors acknowledge the study limitations. Could be reproducible program for volunteers- timely, ? costly

IS CHANGE REQUIRED TO CURRENT CLINICAL PRACTICE? ❒ *Yes* ❒ *No* ❒√ *Undecided, more evidence needed*

Clinical Question [patient/problem, intervention, (comparison), outcome]:
Is it feasible to implement a volunteer communication partner scheme in Newcastle and what results could we expect?

Citation: Worrall, L., & Yiu, E. (2000). Effectiveness of functional communication therapy by volunteers for people with aphasia following stroke. *Aphasiology.* 14:9. 911-924.

Method: Design and Procedure (e.g., note type of research design, comment on randomization, summarize treatment intensity as appropriate, such as dose (trials) per session, session length, frequency, total treatment duration, summarize general procedure, resources / materials required)

Aim: to develop and evaluate a scripted modular intervention programme "Speaking Out" administered by trained volunteers in people's homes. Focus on functional communication. This programme targets the activity dimension of ICIDH-2, therefore Speaking Out aims to enhance everyday communicative activities of people with aphasia by increasing the range of activities and improving performance in those communicative activities.
Design: combined group and single case study design, also looked at a separate sample pre-test post-test design so that between group and within group comparisons could be made with a MATCHED control group as a separate group. BOTH groups received the treatment therapy programme at different times (10 weeks in total) and a non-language based activity (10 weeks in total) with a 10 week withdrawal phase between these two phases, to control for the Hawthorne effect.
Matched participants were identified based on the WAB aphasia quotient then allocated to either Group A or Group B randomly (DOES NOT SAY HOW they randomised). All participants were assessed on the test battery on 5 occasions (at entry and after four phases).
Objectives:
-design a functional communication therapy programmed suitable for volunteers to use
-evaluate the effectiveness of this programme compared to recreational activities and no treatments by using between group and within group comparisons
-measure the effect of intervention
Hypothesis:
-there would be a significant difference between pre-treatment and post-treatment scores
-significant difference between the groups when one received speaking out versus recreational activities.
-within groups there would be a significant difference between the change following the speaking out programme versus the change following the recreational activities programme.
-within groups speaking out would result in significantly greater change then no treatment.
Outcome Measures: impairment/disability/handicap ranges. These were administered on entry; assessor was blinded to groups and not involved in study.
-WAB
-ASHA Functional Assessment of Communication Skills (FACS): 43 item assessment of everyday communicative activities. Ratings based on observation and report.
-CETI: completed by the carer
-Assessment component of the Functional Communication Therapy planner (FCTP): measures the performance of only select relevant goals for the clients collaboratively formed.
-Medical Outcome Study short form-36: general survey of health stages- does this impact on quality of life with participation aspect.

Speaking Out: Consists of 10 modules that are scripted (what is aphasia, communication breakdown, communication repair, starting a conversation, managing finances, using the telephone, leisure at home and out, daily planning, surprises and gift giving. Format always started with a trigger, handouts were given

Critically Appraised Paper: TREATMENT (CAP-T) *continued....*

Method: Participants (where relevant note number of participants, inclusion/exclusionary criteria, characteristics of participants in experimental group and control group/s):
-2 people with aphasia participated in a pilot study to trial speaking out. Then 20 participants with chronic aphasia were recruited over a 2 year period. Participants had to have chronic aphasia as a result of stroke to the language dominant hemisphere, at least 12 months post onset, had discontinued speech therapy for at least 1 month, were living at home/retirement village or hostel, had reported difficult in daily communication, willing to participate, had no dementia or hearing/visual loss, no other neurological diseases, had a spouse/relative/friend as a carer and spoke English. 14 aphasic participants completed the programme and were included. 12 completed the final follow up assessment. 6 excluded due to depression/death/fracture/stroke/volunteer withdrawal. NO statistical differences between groups on the WAB entry assessment.

-15 volunteers recruited from prior research studies, newspaper articles, friends and family of the researcher and participants. Participated in 2 hours of training individually by a SP (topics included description of stroke and effect on family and aphasia and behavioural/emotional changes). The speaking out programme was explained. The volunteer conducted all of the 10 modules of speaking out to the participant at home over a period of 1-2 hours per week. Then a withdrawal phase occurred. Ten weekly visits then occurred with recreational activities (NON language based).

speaking out or recreational program > 10 week break > reassessment > speaking out or recreational program (alternated) > reassessment > 10 week break > final follow up assessment

Results: (briefly summarize the results, note whether the outcome was evaluated with/without blinding, note how many (if any) of the participants 'dropped out' of the study, note if **effect size** was reported)

-Significant changes in WAB and general health scale pre-treatment to post treatment (post speaking out) for group A and group B changed statistically with WAB and bodily pain scale of spouses (nil differences on other scales)
-Mean change on WAB was 2.8 and 3.1 for groups with X3 participants only getting above 5, 0.2 mean change on the ASHA FACS, positive change on general health scale. NOT significant though
-No significant differences in change between groups when receiving speaking out compared to recreational (only significant change was on the patients role in rating physical and pain scale on the health scale)
-Speaking out group did not change more than recreational activity on WAB, ASHA FACS, CETI in group A but general health and social function significant changes occurred. Group B only significant changes were with ASHA FACS.
-Significant difference in ASHA FACS and health scale for pain, emotional scale, general health but not on WAB. CETI. FCTP when looking at speaking out compared to no treatment.
-NO maintenance effect occurred when looking at WAB, ASHA FACS at the end assessment.

All significant changes were found within group comparison rather than between.

Level of Evidence (NH&MRC, 2009) *Circle one* I II III-1 III-2 III-3 √ **IV**

Quality of Evidence: ❒Rated ❒ √ Not Rated
(i) rating system (e.g., PEDRo, RoBiN-T Scale from SpeechBITE) _____
(ii) score _____

Nature of Evidence: ❒ feasibilitv ❒efficacv studv ❒√ effectiveness studv

Relevance to practice (e.g., were the participants and/or treatment context similar/different to everyday clinical practice? Is replication possible in clinical practice? What barriers might prevent the results from be applied to everyday clinical practice? What could be done to address barriers? If barriers can't be modified, how could the procedure be modified to accommodation limitations in clinical practice?)

-Could be replicable but likely to be timely and costly initially. Variable results occurred with outcome measures.

Additional comments (e.g., limitations of the study, need for further research addressing a specific issue)

LIMITATIONS: numbers, drop outs, group matching (matched on aphasia quotient only), practice effect of the design
=20 hours non-professional help, cost to SP is recruitment, training, monitoring of volunteers

Appraised By: Luisa Renna

Date: 04/09/12

Form based on Worrall & Bennett, Evidence based Practice: Barriers & Facilitators for Speech-Language Pathologists, *Journal of Medical Speech-Language Pathology* 2:9, xi – xvi *Revised by Baker, E. (2012) based on Dollaghan (2007) and NHMRC (2009).*