

Final report summary:

Can a group communication therapy programme help those with dysarthria & their carers?

Living with dysarthria: evaluation of the feasibility of the implementation of a group intervention programme for stroke patients and carers, addressing the impact of dysarthria

Why did we fund this research?

Dysarthria is a difficulty speaking caused by problems controlling the muscles used in speech. It can result in speech that is difficult for others to understand, and may require more effort than normal¹.

About 20% of stroke survivors are affected by dysarthria¹, and wider psychological and social (psycho-social) problems have been reported as a result of the symptoms. Stroke survivors with dysarthria have reported issues with self-identity, relationships, wellbeing and perceived stigmatisation². The current approach to management of the condition is focused on treating the physical impairment.

There is very little research into assessing how useful speech and language therapy is for stroke survivors with dysarthria³, and more robust investigations taking into account the emotional and social effects of dysarthria on the stroke survivor and their carers are needed^{4,5}.

This pilot study aimed to develop a group intervention programme for stroke survivors with dysarthria and their carers. A group approach was chosen to provide participants with opportunities for natural interaction with a range of communication partners, discussion of experiences, problem solving and peer support.

If successful, this research could help develop a new treatment for the psycho-social problems that accompany dysarthria after stroke, and lead to wider study through larger, randomised controlled trials (RCTs).

What did the researchers do?

The trial aimed to recruit 16 stroke survivors with mild to moderate dysarthria, and any of their carers able to take part in the study.

Two separate group intervention programmes were planned at separate locations, each involving eight stroke survivors.

Each group intervention programme was eight weeks long; with weekly, two-hour long therapy sessions. Each session was led by two speech and language therapists (SLTs), and was comprised of activities which addressed participants' education about their dysarthria and stroke, the role of peer and professional support, and involved communication practice.

The key objectives of the study were to see: how feasible the group intervention programme would be to deliver in terms of material resource and management; how participants' ability changed across a range of measures of improvement; and how participants viewed the programme overall.



The primary measure of improvement was the Quality of Communication Life Scale (QCLS)⁶, and was used to measure quality of communication life specifically, rather than general quality of life. Other measures of improvement included: the Speech Intelligibility Test (SIT)⁷ and the Communication Effectiveness Measure (CEM)⁵ to measure stroke survivor communication effectiveness; the Communication Effectiveness Survey (CES)⁸ to measure stroke survivor and carer communication effectiveness; the short General Health Questionnaire (GQH12)⁹ to measure stroke survivor and carer wellbeing; and a specially adapted version of the Stroke Knowledge test (SSKT)¹⁰ to measure stroke survivor and carer knowledge of dysarthria and stroke.

What did the research find?

Twelve stroke survivors of a target of 16 with dysarthria between three months to six years after their stroke (chronic dysarthria) were recruited to the trial, plus seven carers, who were family members. Reasons for under recruitment were varied, and included lack of interest, not meeting eligibility criteria (including speech being recovered to a level with which the individual was content) and health problems, or frailty. Of those participants recruited, nine stroke survivors and four carers completed the trial. Reasons for drop out were ill health or a return to work.

Two measures of improvement changed significantly by the end of the group intervention: the SIT test was completed by the stroke survivors only, and suggested they improved in their ability to be understood by others. The SSKT test was completed by stroke survivors and their carers, and suggested that all participants learned more about dysarthria and stroke from taking part in the trial.

All participants took part in focus group discussions after the programme and completed anonymous questionnaires relating to how they perceived taking part in the trial. Feedback was largely positive and suggests that group therapy, with family member participation, is a valid form of management for chronic post-stroke dysarthria.

In 2012, findings from the trial were published in the *International Journal of Language and Communication Disorders*¹¹.

References

1. Warlow, CP et al (eds) 2000 *Stroke: A Practical Guide to Management* Oxford: Blackwell
2. Dickson, S, Barbour, R, Brady, M, Clark, AM, Paton, G 2008 Patients' experience of disruptions associated with post-stroke dysarthria. *International Journal of Language and Communication Disorders* 43, 135-153
3. Sellars C, Hughes T and Langhorne P. 2005 Speech and language therapy for dysarthria due to non-progressive brain damage. *Cochrane Database of Systematic Reviews* 2005, Issue 3.
4. SIGN: Scottish Intercollegiate Guidelines Network 2002 *Management of Patients with Stroke: Rehabilitation, Prevention and Management of Complications, and Discharge Planning*.
5. Mackenzie, C and Lowit, A 2007 Behavioural intervention effects in dysarthria following stroke: communication: effectiveness, intelligibility and dysarthria impact. *International Journal of Language and Communication Disorders* 42, 131 -153.
6. Paul, DR et al (2004) *Quality of Communication Life Scale*. Rockville: ASHA.
7. Yorkston K, Beukelman D, Hakel M (1996) *Speech Intelligibility Test*. Lincoln: Communication Disorders Software.
8. Donovan N J, Velozo C A, Rosenbek J C (2007) The communicative effectiveness survey: Investigating its item-level psychometrics. *Journal of Medical Speech-Language Pathology*, 15, 433-447.
9. Goldberg D, Williams P (1988) *A User's Guide to the General Health Questionnaire*. NFER: Windsor.
10. An expanded and Scottish adapted version of the Stroke Knowledge Test (Sullivan K, Dunton N J, 2004, Development and validation of the Stroke Knowledge Test. *Topics in Stroke Rehabilitation*, 11, 19-28) was devised by the research team.
11. Mackenzie, C., Paton, G., Kelly, S., Brady, M., & Muir, M. (2012). The Living with Dysarthria group: implementation and feasibility of a group intervention for people with dysarthria following stroke and family members. *International Journal of Language & Communication Disorders*, 47(6), 709-724.

What does this mean for stroke survivors and their carers?

A group intervention programme for stroke survivors and their carers may be an effective and enjoyable method of both moderately improving quality of speech for stroke survivors with dysarthria, and improving stroke survivor and carer knowledge about stroke and dysarthria. However, there is no suggestion that the programme improves quality of communication life for stroke survivors.

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