

Complex speech-language therapy interventions for stroke-related aphasia: the RELEASE study incorporating a systematic review and individual participant data network meta-analysis

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Plain English summary

The RELEASE study

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Plain English summary

Worldwide, > 3.5 million people each year have a stroke that causes aphasia. Aphasia is a language problem that affects speaking, understanding of speech, reading and writing. Speech and language therapy supports aphasia recovery, but therapists need better information about what type of therapy, how often, for how many hours each week and for how long gets the best recovery. We explored how language recovery relates to speech and language therapy, stroke and type of aphasia.

We made a database from 5928 people with aphasia after stroke, in 174 studies across 28 countries. We used information about how each person recovered (or did not recover) following speech and language therapy. We explored the patterns of language recovery, what predicted recovery and what type of therapy was linked to the greatest improvements, for whom and when.

Language recovery was influenced by a stroke survivor's age, their aphasia severity and how long it took to start therapy. Language scores improved for all groups but improved most among people who had speech and language therapy, those aged ≤ 55 years, and those who started speech and language therapy soon after their stroke. Improvements lessened as time after stroke increased.

The greatest gains in language, on average, were seen among people who had speech and language therapy 3 to 5 days per week, for 2 to 4 hours each week; understanding of speech improved most with speech and language therapy for > 9 hours over 3 or 4 days per week. Improvements were greatest when 20–50 hours of therapy were delivered. Specific approaches to therapy may suit some people more than others. We need to investigate how best to adapt speech and language therapy to suit a person's age and sex, the severity of their aphasia and how long it has been since their stroke. Speech and language therapy that was relevant to patients' needs was associated with the best gains.

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