

Abstract

Chronic Aphasia Treatment Outcomes after Teletherapy & Online Exercises - A Comprehensive A-FROM Analysis

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Abstract

Background: Following a stroke or traumatic brain injury, many acquire a communication disorder called aphasia. For some, aphasia is acute and resolves after therapy, for others it's a chronic condition. Research has shown that adults with chronic aphasia can get better with on-going treatment and practice. Armed with this knowledge, Lingraphica partnered with the Snyder Center for Aphasia Life Enhancement (SCALE) at The League in Baltimore, Md. to conduct a 12-week Framework for Outcome Measurements in Aphasia (A-FROM) study with nine chronic aphasic SCALE members. These members received teletherapy services that combined group therapy with one-on-one therapy sessions; and worked at home using online language exercises when they wished.

Objective: The four areas requiring attention to improve life for persons with aphasia (PWA) include the following categories:
-Language and related impairments
-Communication and language environment
-Personal identity, attitudes, and feelings
-Participating in life situations

Methods: To diminish impairment: Participants were setup and encouraged to use online TalkPath Therapy exercises to reduce speaking, listening, reading, and writing impairments. To modify communication environments: Participants used remote communication technologies to communicate with others at a geographic distance. To widen opportunities for participation: Participants used the remote communication technology to receive individual therapy session at home. To enhance attitudes and feelings: Participants received individualized training, and support in uses of advanced therapeutic and communication technologies.

Results: Language and related impairments were assessed using the Western Aphasia Battery - Aphasia Quotient (AQ), the metric of overall severity, improved in the mean for the participants by 3.5 \dagger , with a trend toward statistical significance ($\dagger P=.057$). Additionally, the National Outcomes Measurement System (NOMS), diminished by modest, though statistically significant amounts in the four rated items, e.g., mean improvement in Speaking= +0.6* (* $P=.006$). Participation in life situations were assessed using the Communicative Effectiveness Index overall mean (CETI Overall). The CETI showed a robust improvement of +17.8* (* $P=.011$). Personal identity, attitudes, feelings were tested using the Communication Confidence Rating Scale for Aphasia (CCRSA-RIC). It showed an improvement of +10.1* (* $P=.0004$). Additionally, the users' satisfaction levels were high at the end of the study. On a Likert Scale of 1 (least satisfied) to 5 (most satisfied), by far most items received scores in the 4-5 range. Participation in life situations also showed improvement. Spouses reported their loved ones were more engaged, and reports from the online exercises show that independent work increased.

Conclusions: The findings represent a proof of concept for teletherapy services that combine: remote one-on-one sessions; remote group therapy sessions; and online language exercise use, between remote therapy sessions. These findings document some of the important, widespread additional benefits the future can hold, and suggests some of the practical ways to deliver them to PWAs.

Trial Registration: N/A

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KEYWORDS

Teletherapy; online language exercises; aphasia; life participation approach; speech-language pathologist

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Multimedia Appendix 1

Extended abstract.

[[PDF File \(Adobe PDF File\), 970KB-Multimedia Appendix 1](#)]

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