



A feasibility study of Story Retelling Therapy

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Introduction

- Spoken discourse is essential for daily communication but often remains impaired in individuals with post-stroke aphasia.
- Existing treatments (e.g., CIAT, TUF, SFA, ORLA, Script Therapy) mainly target word/sentence-level skills and show limited generalization to real-life discourse (Goral & Kempler, 2009; Murray et al., 2007; Peach & Reuter, 2010; Cherney et al., 2008).
- Discourse Therapy in Aphasia Research: Script Therapy (Cherney et al., 2008; Cherney & Halper, 2008; Lee et al., 2009), Modified RET (Wambaugh et al., 2013), Personal Narrative Treatment (Hoover et al., 2015), NARNIA (Whitworth et al., 2015)
 - These therapies promote naturalistic communication, increasing real-world applicability. However, most impose low verbal working memory demands due to structured, visually supported tasks.
- Traditional therapies often overlook verbal working memory, a key factor in discourse production (Cahana-Amitay & Jenkins, 2018; Yoo et al., 2019).
 - Story Retelling Therapy (SRT) engages verbal working memory by requiring participants to listen to a story and retell it from memory.
 - Compared to visually supported tasks (e.g., picture description), SRT imposes higher cognitive load, better simulating natural communication (Brodsky et al., 2003).
- Thus, SRT uniquely stimulates verbal working memory, making it cognitively distinct among discourse-level interventions.
- The purpose of the current study was twofold:
 - to assess the feasibility of story-retelling therapy (SRT) in individuals with very mild aphasia, and
 - to preliminarily explore changes in verbal working memory performance following SRT and their possible relation to discourse improvements.

Method

Participants. One individual with anomic aphasia participated in this study (Table 1). The participant met the study's inclusion and exclusion criteria. **Outcome Variables.** The main outcome variable (Table 2) is the results of the Story Retelling Procedures (SRP)-A type (Information Units/minutes: IUs/min). The results from other descriptive and outcome variables were compared across three tests (Pre vs. Post-Treatment 1 and 2).

Method

Structures of Story Retelling Therapy (SRT) SR treatment was provided for one hour per session. Each session utilized each story out of nine stories (SRP B/C/D categories: three stories each; <https://computerizedrevisedtokentest.com/srp-stories/>). The overall procedures and structure of the 1-hour Story Retelling Therapy (SRT) sessions are presented in Tables 2 and 3.

Table 1. Participant Information

Age	70
Gender	Female
Years of Education	17
Post-Onset Time (POT)	34 months

Table 2. Treatment Timeline and Assessment Schedule

Test1: Pre-test	SRP Treatment	Test2: Post-test1	Test2: Post-test2
SRP-A (Main Variable) WAB-R MOCA WM	1 hour of story retelling therapy using SRP B/C/D (9 stories) Total 9 sessions	SRP-A (Main Variable) MOCA WAB-R WM	SRP-A (Main Variable) MOCA WAB-R WM
1 day	About 3 weeks	1 day	1 day (After 7 weeks from Test2)

Results

- Information Units (IUs): +12.00% increase from pre-test to post-test 1 (SRP-A) Additional +13.73% increase from post-test 1 to post test 2, +78.4% average IU increase across 9 treated stories (SRP-B/C/D) (Figure 1)
- Changes in the total number of Information Units (IUs) produced before (Pre) and after (Post) each treatment session (Figure 2)
- %IUs per minute (informativeness + efficiency): Increased 81.25% from 0.48 to 0.87 (pre-test → post-test 1) Decreased 24.14% to 0.66 by post-test 2 (Figure 3)
- Working Memory (composite score): Slight dip: 4.13 → 3.75, then rebound to 4.25 (Figure 4)
- WAB-R Aphasia Quotient (AQ): 92.7 → 94.8 → 96.4 (Pre → Post1 → Post2) => Reached normal range by post-test 1 (Figure 5)
- MoCA (cognitive screening): Modest improvement: 20 → 21, then stable

Results

Figure 1. Total Information Units (IUs)

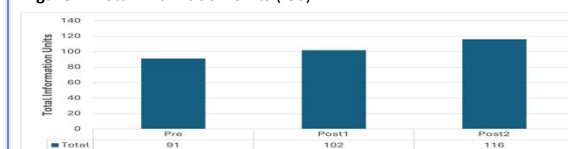


Figure 2. Within Session Pre-Post Information Units (IUs)

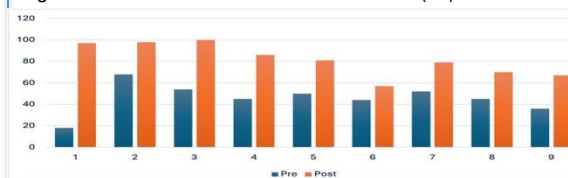


Figure 3. Story Percentage and %U/Min

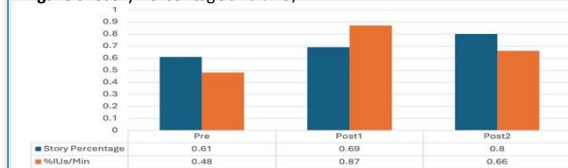


Figure 4. Working Memory Spans

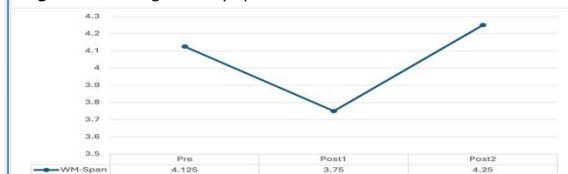
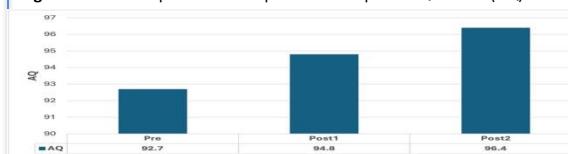


Figure 5. Pre- and post-test comparisons of Aphasia Quotient (AQ) scores



Discussion and Conclusion

Story Retelling Therapy (SRT) improved discourse informativeness and aphasia severity in an individual with mild aphasia, with effects sustained and enhanced at follow-up. These findings suggest that SRT may support both linguistic and cognitive recovery, warranting further validation in larger, controlled studies.