

Case Study of SpeechEasy use Combined with Traditional Stuttering Treatment

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Introduction



- SpeechEasy (SE) first made available in 2001
- Utilizes delayed auditory feedback (DAF) and frequency altered feedback (FAF)
- For some, SE is sole treatment method (Ramig, Ellis, Pollard, & Finan, in press)
 - rural, out-of-the-way areas
 - schedules preclude regular clinical contact
 - past unsuccessful treatment experiences
- Manufacturer recommends device use combined with traditional stuttering treatment

Aims, Methods

- Measure & describe effects of combined SE use & traditional stuttering treatment
 - overt stuttering frequency
 - self-report data
- 3 speech tasks
 - reading passage aloud
 - conversation with experimenter
 - asking questions to strangers
- Self-report measures
 - Perceptions of Stuttering Inventory (PSI)
 - Likert questions
 - final questionnaire
 - informal conversations

Subject characteristics

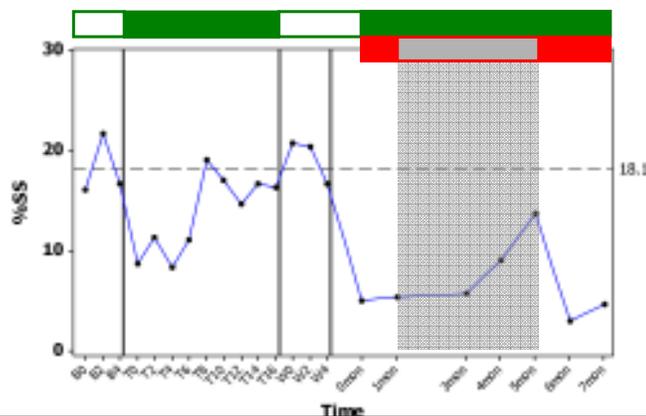
- Utilized convenience sample of one
 - 19 yr-old male
 - recently completed longitudinal SE project
 - chose to purchase device, begin treatment
- Sporadic tx in public schools through age 15
- Primary stuttering pattern: Excessive initial part-word repetitions/recoils (3-6); silent blocking as well, but to much lesser degree

Treatment approach

- Therapy: Integrated approach, 1x a week
 - Board Recognized Fluency Specialist
- Goals:
 - 1) Replace repetitive recoil behavior with prolonging initial sound while emphasizing forward movement
 - 2) Lessen duration of silent blocks by turning on voicing & reducing tension
- Techniques:
 - easy onsets to initiate voicing & transition into next sound
 - desensitization exercises (e.g., voluntary stuttering)

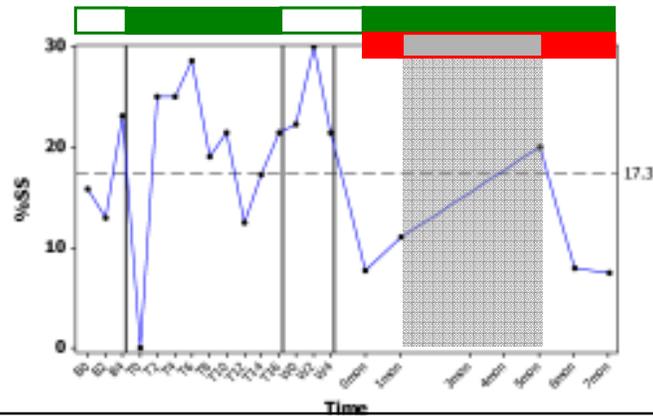
Conversation Samples

- Green = wearing device; Red = traditional treatment
- Immediate effect of SE is evident
- Gradual relapse during longitudinal SE study
- Regressed over summer break (sporadic use of device)
- Maintained improvement for 2 months with treatment



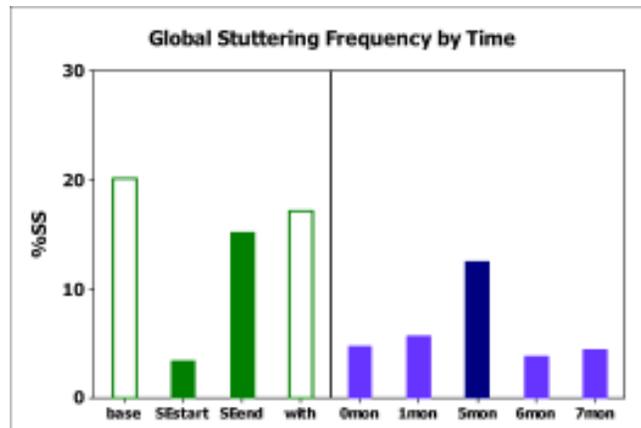
Question Samples

- Green = wearing device; Red = traditional treatment
- Immediate effect of SE is evident
- No clear device effect during longitudinal SE study
- Regressed over summer break (sporadic use of device)
- Maintained improvement for 2 months with treatment



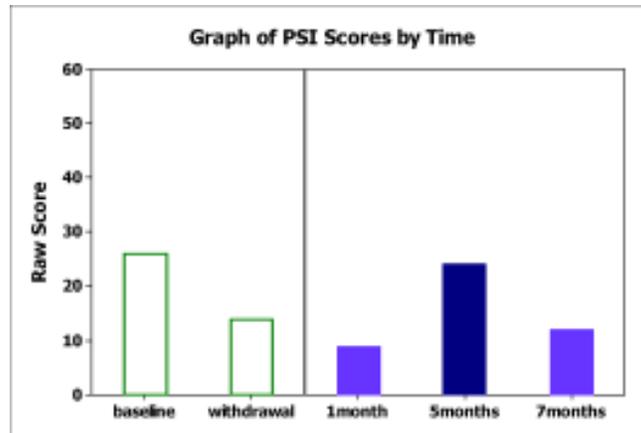
Collapsed Stuttering Counts

- Filled bars = wearing device
- Gradual relapse without traditional treatment



PSI Scores

- Showed improvement following longitudinal SE study
- Regressed over summer break (sporadic use of device)
- Improved score after 2 months of therapy



Questionnaire Responses

Strongly disagree 1 Disagree 2 Somewhat disagree 3 Neutral 4 Somewhat agree 5 Agree 6 Strongly agree 7

- Compared to my speech right after participating in the longitudinal project, I am more fluent now
- The techniques I've learned in treatment have lessened my need and/or desire to use my SpeechEasy device
- Based on my experience, I would recommend that other SpeechEasy users seek stuttering therapy in a manner similar to myself

	start	1mon	7mon
Compared to my speech right after participating in the longitudinal project, I am more fluent now	4	6	7
The techniques I've learned in treatment have lessened my need and/or desire to use my SpeechEasy device		6	6
Based on my experience, I would recommend that other SpeechEasy users seek stuttering therapy in a manner similar to myself			7

Usage Patterns

- Subject wore SE sporadically over the summer
- **In general, how did you feel over the summer while speaking with the SpeechEasy?**
 - SE had “more of an effect” after not wearing it for a while
 - found himself “tuning out” the signal after prolonged use
- Now restricts SE use to higher stress environments
 - class presentations, speaking in front of groups
 - study groups
- Reports that he maintains fluency in other situations without SE

Clinical Recommendations

- Manufacturer guidelines confirmed (for this ONE individual):
 - 1) combining SE use with traditional therapy
 - easy onsets to initiate voicing:
“I find exercises to prolong the first sound of a word to be very helpful, especially in concert with the SpeechEasy”
 - desensitization to minimize struggle, avoidance, expectancy behaviors (PSI)
 - 2) Attending to second speech signal from SE to maximize benefit

Discussion

- For this ONE individual:
 1. Usage pattern became more situation-specific over time
 - *“Since I have resumed therapy, I feel less inclined to use the device in most situations.”*
 - reports that it is still helpful to wear SE in higher stress environments
 2. Traditional, active stuttering management techniques improved fluency
 - with device (%SS, PSI graphs)
 - without device (self-report)
 3. **Active monitoring of techniques and device use were needed to maximize outcomes**

