CHORAL SPEECH

Auditory and visual therapies for clients who stutter

by Kaiti Gallagher & Kendrah T. Marchiondo
STUTTERING DISORDERS

- Stuttering is a disorder involving frequent disruption in the forward flow of speech characterized by uncontrollable, audible or silent repetitions and/or prolongations in part-words, whole-words, phrases, or sentences (Bennett, 2006).

- Considered a “low incidence” disorder, but nearly 3 million Americans and 1% of the global population experience dysfluent speech (Snyder, Hough, Blanchet, Ivy, & Waddel, 2009).
CHORAL SPEECH

- When individuals with dysfluencies read or talk under choral speech conditions, fluency tends to increase.

- It can be divided into two categories:
  - auditory (i.e., reading or speaking in unison with a partner)
  - visual (i.e., reading while observing a partner’s simultaneous, but silent speech).

- Has functional limitations, but evidence supports usage because it promotes natural speech and speech initiation.

(Kalinowski, Saltuklaroglu, Stuart, & Guntupalli, 2007; Saltuklaroglu et al.).
SUPPORTING EVIDENCE: AUDITORY

- Saluklaroglu et al. (2009) found that altered auditory feedback (AAF) and choral speech (CS) significantly facilitated fluency of the participants.
  - CS was more effective in aiding initiation of speech.
  - Overall, choral speech caused a 98% reduction of stuttering while all AAF techniques averaged a 68% reduction.

- Another research study compared four auditory CS conditions to AAF and solo reading (Kiefte & Armson, 2006). Both choral reading and AAF were found to significantly reduce stuttering in study participants.
A second therapy technique that falls under the classification of choral speech is visual choral speech (VCS). VCS significantly reduced the participants’ stuttering frequency during recitation of memorized text by 80% as compared to recitation without VCS.

(Kalinowski, Stuart, Rastatter, Snyder, & Dayalu, 2000)
Choral speech effects might be generalized if faded.
Combining auditory choral speech with VCS could be maximally beneficial.
The purpose of the present study is to illustrate the benefits of combining auditory choral speech and VCS into one therapy technique that will successfully reduce dysfluencies and promote generalization of fluent speech.
PARTICIPANTS FOR OUR STUDY

- One hundred adults who stutter (72 men and 28 women) ages 18 to 30
- Inclusion criteria:
  - Hearing screenings (WNL)
  - Native English speakers
  - High school diploma
  - Most recent vision testing
  - No current ST.
- Treatment group: 34 males and 16 females.
- Control condition: 38 males and 12 females.
- All participants were matched using minimization sampling methods according to stuttering severity.
MATERIALS

- Three, 300 syllable, reading passages from middle school science/social studies text books (8th grade reading level)
- A total of 48 passages were used over the course of treatment. The same passages were used across participants in all groups for a one session period.
- Each consecutive session implemented new reading materials but remained consistent across all participants for that session (i.e. readings 1, 2, and 3 given to all participants during session one, week one; readings 4, 5, and 6 given to all participants during session two, week one and so on.)
PROCEDURE

- Stuttering Severity Instrument, 4th Edition (SSI-4) to determine severity ratings and to collect pre-test scores.
- Two-month experimental period, participants seen biweekly for ½ hour sessions
- Comparing choral visual fading therapy (CVFT – experimental group) and traditional stuttering modification therapy (control group).
## INTERVALS OF TREATMENT

<table>
<thead>
<tr>
<th>Time Period</th>
<th>CVFT</th>
<th>Traditional stuttering modification therapy</th>
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</thead>
<tbody>
<tr>
<td>Weeks 1 &amp; 2</td>
<td>Simultaneous CS and VCS techniques</td>
<td>Desensitization</td>
</tr>
<tr>
<td>Weeks 3 &amp; 4</td>
<td>CS is faded; VCS remains</td>
<td>Modification</td>
</tr>
<tr>
<td>Weeks 5 &amp; 6</td>
<td>Solely VCS</td>
<td>Stabilization</td>
</tr>
<tr>
<td>Weeks 7 &amp; 8</td>
<td>VCS is faded; independent recitation remains</td>
<td>Independent</td>
</tr>
</tbody>
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POST-TESTING

- SSI-4 used as post-test to determine scores and severity ratings.
- The SLPs who administered and scored the SSI-4 were blinded as to which participant was in the CVFT group versus the traditional treatment group.
- Pre-test and post-test scores and severity ratings between the two groups were compared.
REFERENCES


