PHONATION: LARYNGEAL INCOORDINATION

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LARYNGEAL INCOORDINATION

- Usually does not interfere with intelligibility
- Can interfere with naturalness
- If primary problem making speech unnatural, need to treat
- Usually treated after respiratory and resonance disorders
- May present/need to be treated in two ways:
  - Respiratory–Laryngeal Timing
  - Articulatory Distinctions

WHEN TO USE THIS

What you hear:
- Breathy
- Strained/Strangled
- Audible inspiration
- Inconsistent pitch breaks
- Voice errors
- Tremors

When you might hear it:
- Flaccid dysarthria – Hypoglossal (XIIth) Nerve Lesions
- Hyperkinetic dysarthria–Tremor
- Hyperkinetic dysarthria–Chorea
- Hyperkinetic dysarthria–Dystonia and Athetosis
- Mixed dysarthria–Spastic/Flaccid
- Ataxic dysarthria

HIERARCHY OF PHONATION TASKS

1. Sustained phonation of single vowels for _____ seconds with constant intensity and stability.
2. Continuous phonation on series of vowel sounds and maintain steady pitch and/or loudness.
3. Continuous phonation when repeating VCV sequences and maintain steady pitch and/or loudness. **
4. Continuous phonation when repeating phrases and maintain steady pitch and/or loudness.
5. Continuous phonation in conversational speech with/without cues.

**Step demonstrated in this presentation.

TREATMENT GOAL

- **Goal:** Patient will maximize use of phonation to improve naturalness of communication skills.
  - **Objective:** Patient will use continuous phonation when repeating VCV sequences and maintain steady pitch and/or loudness.

STIMULI DESIGN

- Create VCV combinations that have voiced and voiceless consonant cognates
- Use a variety of vowels and consonants to make task more readily generalized to speech
- Use biofeedback in form of Respitrace unit (monitor phonation and respiration) and Visipitch (monitor pitch and loudness)
- Use physical feedback, placing hand on throat to feel for breaks in phonation (at home practice)
- Number of stimulus – 10 different VCV with matching consonant cognates
- Random trials to promote generalization
Binary scoring (+/−)
+ for phonation for entire duration of VCV segment
− for arrest of phonation during VCV segment
**STIMULUS FOR DEMO**

“Say the nonsense syllables on the left side. Now say the nonsense syllables on the right side just as you did for the left side. Make sure your vocal folds are engaged the entire time during the nonsense syllables.”

<table>
<thead>
<tr>
<th>Voiced Consonants</th>
<th>Voiceless Consonants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. aba</td>
<td>1. apa</td>
</tr>
<tr>
<td>2. ebe</td>
<td>2. epe</td>
</tr>
<tr>
<td>3. idi</td>
<td>3. iti</td>
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<tr>
<td>4. udu</td>
<td>4. utu</td>
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<tr>
<td>5. aga</td>
<td>5. aka</td>
</tr>
<tr>
<td>6. ugu</td>
<td>6. uku</td>
</tr>
<tr>
<td>7. aza</td>
<td>7. asa</td>
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<tr>
<td>8. ozo</td>
<td>8. oso</td>
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<tr>
<td>9. ede</td>
<td>9. ete</td>
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<tr>
<td>10. obo</td>
<td>10. opo</td>
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</tbody>
</table>

RESOURCES

