A Critical Review of Interventions Targeting Prosody
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Purpose

• To summarize the results of a critical review on existing research on prosodic intervention.
Method

SEARCH

• Electronic data bases
• A priori selection criteria
Method

ANALYSIS

• type of research,
• participant descriptors,
• internal validity issues,
• outcomes and
• results
BACKGROUND
CHARACTERISTICS:
Reviewed Research

• Potential studies identified: over 1050
• Studies meeting inclusion/exclusion criteria--14
  – 4 group designs
  – 10 single subject experimental designs
BACKGROUND CHARACTERISTICS: Participant Overview

- Total number participants--155 (139 with communication disorders)
- Only 7 (5%) of participants with communication disorders were children.
## BACKGROUND CHARACTERISTICS: Participants--Etiology

<table>
<thead>
<tr>
<th>ETIOLOGY</th>
<th>NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Neurogenic</td>
<td>135</td>
</tr>
<tr>
<td>• Unknown (developmental)</td>
<td>4</td>
</tr>
<tr>
<td>• 2nd Language Learning</td>
<td>1</td>
</tr>
</tbody>
</table>
### Communication Disorder Type

<table>
<thead>
<tr>
<th>CDIS TYPE</th>
<th># (%)</th>
</tr>
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<tbody>
<tr>
<td>apraxia</td>
<td>1 (&lt;1%)</td>
</tr>
<tr>
<td>dysarthria</td>
<td>127 (91%)</td>
</tr>
<tr>
<td>expressive/motor apraxia</td>
<td>7 (5%)</td>
</tr>
<tr>
<td>selected mutism</td>
<td>1 (&lt;1%)</td>
</tr>
<tr>
<td>specific language impairment</td>
<td>3 (2%)</td>
</tr>
</tbody>
</table>
CRITIQUE OF DESIGNS

STRENGTHS
• Some blinding of data analyzers
• Used counterbalancing, matching, or randomization
• Groups similar pre-intervention

WEAKNESSES
• No blinding of participants/clinicians
• Only 6 reported reliability data
• Only 1 report of treatment fidelity data
TREATMENT CHARACTERISTICS:
Procedures

- auditory feedback
- ask questions
- contrastive stress drills*
- encouragement of high effort*
- generalization activities
- imitation requests/modeling
- metalinguistic tasks/explanations
- monologues
- precise articulation
- rate modulation
- reading
- redirection
- reinforcement
- shaping/fading
- verbal feedback
- visual feedback
TREATMENT CHARACTERISTICS: Most Common Procedures

- Visual Feedback
- Imitation
- Verbal Feedback
- Metalinguistics/explanations
OUTCOMES

• Almost exclusively expressive.
• Focus on prosodic elements, not functions.
• Targets tended to be shorter units (words, phrases) rather than longer units (sustained monologues or dialogues).
RESULTS

• All claim some success.
• Prosody can be altered by intervention
• Quality indicators had poor reliability.
DISCUSSION

POSITIVES:

• The 14 studies covered a variety of etiologies and communication disorders.
• Research designs have many positive aspects.
• Evidence intervention can alter prosodic elements such as loudness, pitch modulation, and rate.
NEGATIVES:

• The number of qualifying studies was disappointing.

• Limited emphasis on prosodic function as a treatment outcome.

• Contradictions of the quality indications is of concern.
FUTURE RESEARCH

• Increasing the rigor of designs
• Exploring a wider variety of targets (outcomes) including functional targets.
• Determining procedures that are effective with specific targets or disorder types.
• Including more children in research
• Validating assessment procedures