Language Intervention for Late Talkers: A Systematic Review

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Purpose & Research Question

- **Purpose:** Describe language intervention techniques that aim to increase the mean length of utterance (MLU) and grammatical complexity of children with language delays, commonly referred to as “late talkers.”
- **What specific language intervention techniques are being used with children with language delays that are positively impacting their rate of language acquisition from the two- to three-word stage?**
- **Children with language delays**
  - Age: 2-6 years old
  - MLU: 1.5-3.0

Typical Language Milestones

- **Language begins with the appearance of the first word around a child’s first birthday**
  - 18 months:
    - Expressive vocabulary size of 50-100 words
    - Sequences of words, sounds, and gestures
  - 24 months:
    - Expressive vocabulary size of 200-300 words
    - Use two-word utterances frequently
    - When half of a child’s utterances consist of two-word combinations, that child will begin to produce three- and four-word combinations.

Semantic Relations

- **18-36 months**
- Combination of two words resulting in relational meanings that signify more than the meanings of the single words alone
- Concepts of identity, recurrence, non-existence, location, and possession of agents, actions, and objects

Late Talkers

- Not meeting typical language milestones at same time as age-matched peers
- Expressive vocabulary of less than 50 words
- No multword combinations by the age of 2
- Late emergence of first word productions
- Prolonged learning of vocabulary, sentence structure, and literacy

Results

- **Total Search Results**
  - n=736
  - Duplicates: N=105

- **PubMed**
  - n=97

- **ERIC**
  - n=128

- **PsycINFO**
  - n=511

- **Population Search Terms:**
  - Language delay
  - Speech delay
  - Communication delay
  - Late talker
  - Language disorder
  - Language delay
  - Developmental aphasia
  - Low MLU
  - Developmental language delay
  - Developmental language impairment

- **Outcome Search Terms:**
  - Multiturn conversation
  - Conversation
  - Two-word utterances
  - Multimodal
  - Multimodal interaction
  - Picture book
  - Early combinations
  - Word combinations
  - Two-word combinations
  - Early two-word combinations
  - Three-word combinations
  - Multiturn conversation
  - Two-word utterances

- **Percent Agreement Between Raters**

- **Screening Procedures**
  - Included based on age range (2-6) 91%
  - Included based on MLU (1.5-3.0) 86%
  - Included based on intervention 83%
  - Included based on increased MLU 77%
  - Included based on increased sentence variety 64%

- **Questions Remaining**

- **References**

Conclusions

- **No evidence that any of the three treatment approaches (child-centered, hybrid, or clinician-directed) was more effective at increasing the production of semantic relations (Olswang & Coggins, 1984).**
- **Evidence from our search leads to two potential recommendations:**
  - **First**, researchers and clinicians can assume that child-centered and hybrid approaches to language intervention are efficacious for children with language delays.
  - **Children with language delays respond well to naturalistic environments and salient targets**
  - **Children with language delays respond well to the use of semantic relations as target stimuli.**
  - **However, evidence regarding clinician-directed approaches to language intervention is too limited to determine the effectiveness for children with language delays.**
  - **Second**, researchers and clinicians can assume that parent involvement in language intervention is effective for children with language delays.
  - **Parents may help children with language delays generalize target stimuli to new environments.**
  - **However, it is not clear that all parents will respond well to educational language training sessions or utilize language intervention techniques outside of typical teaching contexts.**

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