Disclosure Statement

The presenter of this session, entitled “Assessment and Treatment of Speech Sound Development in Early Intervention: The Bottom Line,” does not have any financial relationships relevant to the content of the presentation.

Nonfinancial relationships:
Dr. Cassidy is a paid employee of Radford University. She may reference her place of employment along with clinical case studies based on her roles and responsibilities as faculty in her respective department and college at the university.

Session Objectives

- Define and describe expectations for typical speech sound development in the 0-3 population
- Describe appropriate assessment strategies and differential diagnosis of speech sound development in the 0-3 population
- Model strategies that facilitate speech sound development through parent coaching techniques in EI

Which children are at risk for ongoing speech issues?

- Some special populations
  - Identified early or from birth
  - Children with Cerebral Palsy, Hearing Loss, Craniofacial Anomalies

- Children who have early language delays
  - Limited expressive vocabularies
  - Late onset of single words or those who are not yet combining words
  - Those with characteristics or diagnoses of Autism Spectrum Disorder

Speech development

When do children learn to say the sounds of their language?

- /p/ puppy, please
- /b/ baby, ball, bye-bye
- /t/ turn, two
- /d/ dog, daddy, done
- /m/ more, mommy
- /n/ no, nose
- /h/ hi, house
- /w/ one, wet
- /l/ foot, four, five
Speech sounds that develop by age 3 years

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<tr>
<th>Place of Articulation</th>
<th>Bilabial</th>
<th>Labiodental</th>
<th>Interdental</th>
<th>Alveolar</th>
<th>Palatal</th>
<th>Velar</th>
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Early Word Shapes

- CV: no, two
- VC: up, off
- CVC: dog, mire
- CVCV: baby, daddy, mommy
- CVCC: wagon, vacuum
- Some initial clusters: bw, dw, fw

Individual variation

- Patterns
  - Reduplication
  - Final consonant deletion
  - Assimilation
  - Cluster reduction or simplification
  - Stopping
  - Fronting
  - Gliding

Use of a favorite sound

Intelligibility

- Few or distorted vowels
- Few or no words at 24 months
- Difficulty imitating
- Restricted consonant inventory
- Initial consonant omissions
- Difficulty producing two syllable words

When should we be concerned?
How do we assess speech sound development in early intervention?

What should we consider in regard to DIAGNOSIS prior to the age of 3?

What about Childhood Apraxia of Speech?

Should we work on speech sounds in Early Intervention?

What does this mean?!

FUNCTION FIRST!

LANGUAGE DEVELOPMENT
Addressing Speech Sound Development

Direct SPEECH Therapy

Functional LANGUAGE Therapy

How can we embed speech sound productions into a family’s everyday routines and activities?

Auggie will say 2 word phrases (light on, light off, birds tweet) at bedtime with Daddy 6 nights a week for two weeks.

Auggie can ask for his morning snack by name at breakfast. His childcare provider during 5-7 rest periods in a week.

SUBSTANCE WORDS (function first!)

RELATIONAL WORDS!
Early Intervention for children with cleft lip and palate


T O P

Parent and caregiver coaching techniques:

Our top FIVE strategies to facilitate speech sound development within everyday activities and routines...

1. TALK ABOUT YOURSELF!

2. TALK ABOUT WHAT THE CHILD IS DOING!

3. WAIT... AND THEN PROMPT!

4. SHOW AND SAY WHAT YOU WANT THE CHILD TO DO AND SAY!

RECASTING

How many ideas (strategies) can you come up with to naturally and functionally support and embed speech sound productions into the everyday routines and activities of a family?

Questions? Comments!

References


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Assessment and Treatment of Speech Sound Development in Early Intervention: The Bottom Line!

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Abstract

Typical patterns of speech sound development in children under three years of age and in special populations will be reviewed. Relationships between early speech and language learning development will be described. Coaching practices to facilitate speech sound development within activities that simultaneously target functional communication and language development will be provided.

Session Summary

Many parents and early intervention service providers who treat young children with communication delays and disorders express concern about their children’s pronunciation as a specific area of concern, in addition to their broader concerns about communication and/or language development. Yet there is little literature to guide early intervention service providers to provide evidence-based assessment and treatment of speech sound development and disorders in very young children. In fact, several sources recommend waiting until after the age of three years to differentially diagnose a child with a developmental speech sound disorder (e.g., Bowen, 1998); most of the literature that addresses intervention for speech sound production disorders (specifically articulation and phonology) is focused on children over three years of age (e.g., Brumbaugh & Smit, 2013).

While most children continue to develop their speech production abilities through the preschool and early school-age years, some children are diagnosed with organic disorders that may impact their speech development; their communication skills are often also characterized by comorbid delays or disorders in language development (Bashina, Simashkova, Grachev, & Gorbachevskaya, 2002; Rescorla & Ratner, 1996; Chenausky, Tager-Flusberg, & Nelson, 2017). In order to support family concerns regarding a child’s speech sound development by providing preventive services for children who are at risk of continuing difficulty with speech production and possible long-term difficulty with speech, language and literacy development, early intervention practitioners first need
evidence-based information that specifically addresses speech development in children under the age of three years. This information includes relationships between speech and language skills in early development, how to assess speech sound development in children with delays and disorders in language and communication, how to identify which children who are at special risk for continuing to have difficulty with speech sound production, and functional approaches to support the development of speech skills within the early intervention framework.

Literature addressing intervention for speech sound production in children under three years suggests that by focusing on words with specific characteristics, children can improve their speech sound production skills while directly targeting their language skills (Scherer, 1999; Storkel, 2018). There is currently a gap, however, between providing evidence-based best practices in early intervention, which involves parent coaching, and intervention of speech sound development. Despite the evidence that supports a focus on teaching parents strategies to support their children’s learning in functional, daily routines as best practice, parents tend to be minimally involved in providing intervention to their children when speech sound production is the target. Both families and providers continue to rely on direct therapy approaches rather than utilizing the coaching model that has been proven a successful approach in early intervention (Sugden, Baker, Munro & Williams, 2016).

Typical patterns of speech sound development in children under three years of age and in special populations of children who are at risk for speech sound disorders, such as children with cleft lip/palate, Autism Spectrum Disorders, hearing loss, and children with language delays/disorders, will be reviewed. The relationships between speech and language learning in early development (Edwards, Munson, & Beckman, 2011; Stoel-Gammon, 2011; Vihman, 2017) will be described. This foundational knowledge will guide practitioners to appropriately identify young children who have difficulty acquiring speech production skills versus those who are demonstrating developmentally appropriate speech production skills.

The session will conclude with a thorough presentation of best practices for coaching families to facilitate speech sound development by using activities that simultaneously target functional communication and language development while supporting the child’s development of speech skills. Recent research on choice of words to use in intervention to facilitate speech sound development (Storkel, 2018) will be reviewed and methods for embedding these words and other techniques within functional family-based routines will be described.
References


