**Childhood Apraxia of Speech: Differential Diagnosis & Evidence-based Intervention**

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**Abstract**

CAS is a complex disorder to diagnose and treat, and given its low prevalence, many SLPs have limited experience diagnosing and treating children with it. In this seminar, we will situate CAS in the larger clinical typology of speech sound disorders, as well as discuss the different clinical contexts in which CAS occurs in children. We will discuss how to conduct a differential diagnostic evaluation, given that the symptoms of CAS are system-wide. To help us interpret our assessment data, as well as to prepare us for intervention, we will review the acquisition of early typical vocal and verbal skills, including suprasegmentals. We also will discuss how to build phonetic complexity into the speech of children with CAS, and we will practice developing goals based on phonetic complexity. We will review acquisition of motor skills and the cognitive motor-based principles that can affect motor skill development. Last, we will evaluate the research evidence for the four therapy approaches that specifically have been designed for and tested on children with CAS, including Dynamic Temporal and Tactile Cueing, PROMPT, Rapid Syllable Transitions, and the Nuffield Centre Dyspraxia Programme.

**Learning Objectives**

At the end of this presentation, participants will be able to:

1. Describe CAS as a motor speech disorder
2. List the core, associated, and differential symptoms of CAS
3. Develop complexity-based segmental and suprasegmental goals for children with CAS
4. Discuss strengths and weaknesses of various intervention approaches designed specifically for children with CAS

**Brief Biography**

Kathy J. Jakielski, Ph.D., CCC-SLP is Professor and Chair of Communication Sciences and Disorders at Augustana College in Rock Island, Illinois in the United States. She has over 25 years of clinical and research experience working with children and adolescents with severe speech sound impairment, including CAS. She conducts research on genetic bases of CAS, differential diagnosis, and treatment efficacy on children with CAS.

**Timed Agenda**

10:00-11:00 a.m.

 Background Information

* Speech Disorders Classification System
* CAS as a Motor Speech Disorder
* Contexts in Which CAS Occurs
* Prevalence Estimates
* Q & A

11:00-11:15 a.m.

 Break

11:15 a.m.-noon

 Diagnosis

* Deriving Phonetic, Phonological, and Suprasegmental Inventories
* Core Differential Symptoms of CAS
* Associated Symptoms of CAS
* Video Case Study
* Q & A

noon-1 p.m.

 Lunch

1:00-2:15 p.m.

 Differential Diagnosis

* Assessment Protocol
* Video Case Studies
* Q & A

2:15-2:30 p.m.

 Break

2:30-4:00 p.m.

 Fundamentals of Intervention

* Acquisition of Early Vocal and Verbal Skills
* Acquisition of Phonetic Complexity
* Hands-on Application of Phonetic Complexity in Selecting Goals and Target Stimuli
* Developing Functional Vocabulary Items
* Measuring Change when Change is Slow
* Q & A

 Evidence-based Intervention

* Principles of Cognitive Motor Learning
* Intervention Approaches Designed for and Tested on CAS
* Video Examples of Interventions for CAS
* Q & A