

Developmental Apraxia of Speech (DAS)

- Dysarthria = muscle weakness.
- Dyspraxia or apraxia = problems with muscle coordination.
- Adult forms of both of these are clearly linked to some type of neurological damage.
- Childhood forms of dysarthria = various forms of cerebral palsy.

DAS

- Controversial diagnosis.
- Some argue that this condition does not really exist.
 - Believe that this is just an extremely severe form of speech delay.
- Almost never see any specific neurological damage.
 - See nothing with medical imaging techniques like CT or MRI.

DAS

- Other than the dysarthrias associated with cerebral palsy, DAS is the classic childhood motor speech problem.
 - Sometimes called developmental verbal dyspraxia (DVD).
- Need specific positive signs.
- Often see slow progress in therapy but this is NOT enough evidence for this diagnosis.
 - Slow progress raises suspicion but it may also mean that we are not doing our jobs properly.

Proposed Definitions of DAS

- Inability to sequence speech movements after exclusion of sensory, cognitive, and language disruptions.
- A motor speech disorder involving deficits in the prearticulatory sequencing of segmental targets.
- Inability of child to perform volitional/imitative productions of sounds and sequences.

Prevalence Estimates of DAS

- 1.3% (Morely, 1972)
- 1.0% (Yoss, 1975)
- .125% (Shriberg et al., 1997)

DAS Formal Tests

- Several available.
- Because we don't have a good sense of what the condition actually is, the criteria used in each test is arbitrary.
- We can't assume that just because it has been published that the diagnosis question has been solved. It has not.

DAS Clinical Criteria

- Significant problems with consonant production.
- May see vowel errors (one of the few cases where vowels could be an issue in English).
- Errors increase as length of unit increases.
- Errors often include more than 2 features.
- Errors may or may not be inconsistent (in adult apraxia almost always inconsistent).

DAS Clinical Criteria

- Difficulty with producing sequences involving changing place of articulation.
- May or may not see groping movements.
- May or may not see oral apraxia
 - Problems with nonspeech movements.
- May have history of some 'neurological event'.
- May have problems with timing and control of nasality and prosody.

DAS Clinical Criteria

- Usually have normal nonverbal IQ.
- Usually have normal receptive language skills.
 - Very poor intelligibility means testing expressive language is very difficult.
- Usually have normal hearing.
- Usually don't have obvious muscle weakness.

DAS Remediation

Three important principles:

1. Need to teach new behaviors.
2. Need lots of practice BUT want to be sure to avoid excessive repetition of the same things (want to teach flexibility).
3. Watch frustration if steps in progression are too hard.

DAS Remediation

- Want to expand both phonetic and syllable shape inventories.
- Teach new sounds using syllable shapes they already use.
- Teach new syllable shapes using sounds already in inventory.

DAS Remediation

- Visual stimuli often helpful.
- Create picture stimuli for each sound and practice in games.
- Combine stimuli to help create sound sequence practice.
- Aim for both accuracy and flexibility.
- LOTS of production practice.