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Inconsistent speech disorder

Background

This information proposes that the term developmental verbal dyspraxia (DVD) be updated to **inconsistent speech disorder** due to the highly controversial nature of DVD and the lack of evidence for definitive diagnosis of DVD. In contrast, a diagnosis of inconsistent speech disorder leads to treatment supported by research evidence. There should be caution in the use of this terminology as a small number of children may experience **dyspraxia** or a **dyspraxia of speech** in the same way as adults following a neurological trauma.

What is dyspraxia/apraxia?

Dyspraxia is an articulatory difficulty in adults with acquired speech and language disorders. That is, speech sound problems caused by a stroke, head injury or similar neurological condition. Dyspraxia occurs in the absence of obvious physical causes such as muscle weakness or paralysis.

Dyspraxia '…literally means the poor performance of movements.' (Boon, 2000). The first part of the word 'dys-', means difficulties or problems with, whereas 'a-' means an absence of. The second part of the word refers to controlling and coordinating learnt movement. So 'apraxia' is an absence of coordinated movement and 'dyspraxia' is a difficulty with planning and carrying out coordinated movements as a result of brain damage. The two labels reflect different severity; apraxia is more severe than dyspraxia.

What is dyspraxia/apraxia of speech in children?

A very small number of children may acquire a neurological condition following a stroke or accident such as a head injury, leading to an apraxia of speech. This will be very similar if not identical to that experienced by an adult suffering the same sort of neurological damage.

What is developmental verbal dyspraxia?

In the 1950s speech and language therapists working with some adults after stroke and other neurological conditions used the term 'dyspraxia' to describe children's speech behaviours as it appeared that some children with severe speech difficulties had the same or similar difficulties.

Other terms were also borrowed from adult clients, such as 'Childhood aphasia' for difficulties with understanding spoken language, but these have now been replaced with more suitable descriptive labels. In contrast, 'dyspraxia' has persisted. This may be because, until recently, no satisfactory explanation of the condition or effective treatment methods were available.

When applied to children, 'dyspraxia' or 'apraxia' is typically used with the prefix 'developmental', or similar, to show that the condition is present in a child or young person who is still developing their skills, unlike an adult who has suffered some kind of trauma and lost some or all of their skills. This continued use of the adult label 'dyspraxia' or 'apraxia' combined with other prefixes has led to a wide range of terminology including:

- 'Developmental verbal dyspraxia' (DVD)
- 'Developmental apraxia of speech' (DAS)
- 'Developmental articulatory dyspraxia' (DAD) and
- 'Childhood apraxia of speech' (CAS). CAS is often used in the USA

Developmental verbal dyspraxia is therefore a type of **speech disorder**.

How often does this condition occur?

A survey of 1100 children referred to a mainstream children's speech and language therapy service over a fifteen month period found **no child given the diagnosis developmental dyspraxia** (Broomfield and Dodd, 2004). In contrast, 320 children presented with speech disability. Developmental dyspraxia is therefore very rare, if it exists at all.

Controversy about the diagnosis of developmental verbal dyspraxia

Stackhouse published two papers examining developmental dyspraxia, highlighting that the speech disorder was '…one of the most controversial of the developmental speech disorders' (1992a: 20). This controversy is caused by the lack of an easy way to identify children with the condition, with speech and language therapists allocating children the diagnosis if they fail to make progress in traditional (non evidence-based) therapy (Ferry et al., 1975 in Stackhouse 1992a). This is problematic, as if the wrong therapy is provided, the child will fail to make progress. It has been recognised that this is the case with inconsistent speech disorder. This condition fails to respond to traditional articulation or phonology therapy techniques, but tends to resolve with a particular therapy aimed at the child's needs (see below).

In addition, children with this diagnosis are likely to have long-term difficulties with spoken and written language (literacy) (Stackhouse, 1992b). This suggests that it is a phonological problem rather than a physical or neurological one.

Inconsistent phonological disorder

Children with a diagnosis of developmental verbal dyspraxia should be assessed to see if they present with **inconsistent speech disorder**. This diagnosis is based on phonological theory. It is thought that the child cannot map their meaning onto words and finds it difficult to produce words in the same way every time. This rejects a physical or neurological cause of the speech disorder.

Assessment of inconsistent speech disorder

Assessment of inconsistent speech disorder should be undertaken using an assessment which examines the child's attempt at producing words on more than one occasion. Several published speech assessments do not assess this aspect of speech development and may lead to misdiagnosis unless adapted. The Diagnostic Evaluation of Articulation and Phonology (Dodd *et al.* 2002) examines inconsistency.

Inconsistent speech disorder is where the child produces words differently on each occasion they attempt a word. Such children will have a high percentage of words which are inconsistent. This indicates that they have no phonological system, i.e. a way to map meaning onto speech sounds.

Therapy for inconsistent phonological disorder

To encourage the child to map meaning onto their sound system, the **core vocabulary therapy** was developed (Dodd *et al.* 2010). This approach encourages the child to produce words used frequently in everyday conversation and to produce those words in the same way every time (as opposed to 'correct'). The 'accuracy' of the words is not important at this stage, just that the child produces the word consistently. After this has been achieved for many words the child should begin to develop a consistent system of meaning onto sounds within words. The speech and language therapist can then plan further therapy to encourage the child to use more accurate adult forms of their words. This approach has been shown to be more effective for these children than traditional therapy and phonological contrast therapy (McIntosh and Dodd, 2008).

In addition to this, children diagnosed with inconsistent phonological disorder should also be assessed for language and literacy difficulties as speech and language difficulties are rarely found in isolation (Broomfield and Dodd, 2004b).

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Please note: Afasic does not hold copies of any referenced material. These publications should be available at academic libraries

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