Shoreline Speech Therapy

Childhood and Adolescent Communication Disorders: Descriptions and Accessing Support

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The prevalence of childhood communication disorders between the ages of 3 and 17 is approximately 8%[1]. Timely referral when a communication issue is suspected is key to parents being able to make informed decisions about their child's care and education, early identification of communication delays and disorders, and initiation of intervention. The purpose of this brief is to provide an overview of several childhood speech and language delays/disorders that are often misunderstood and what can be expected from working with a speech-language pathologist.

Before proceeding, two terms need to be clarified: *speech* and *language*. Although often used interchangeably, they actually refer to two different parts of how humans communicate. 'Speech' refers to the sounds we create that carry meaning and make up words ("cat" = k + ah + t *vs* "pat" = p + ah + t). 'Language' means the words and grammar that carry meaning ('she is patting the cat' *vs* 'she pat the dog'). Language is expressed and understood. It can be oral, written, gestured, or conveyed in images.

Late Talkers

Children with 'late language emergence' (a 'late talker') are those around 18 to 30 months old that are not meeting his or her *language production* milestones and who otherwise have typical play, social, motor, and cognitive skills[2]. These children usually have good *understanding* of language. Their *speech sounds* may also be developing normally. If a child has not made certain vocabulary milestones and has a risk factor in their history (e.g., recurrent ear infections, family history of speech issues), it is recommended that they be referred to an S-LP for an assessment.

Unfortunatley, there is a misconception that all children with late language emergence will 'grow out of it'. Some children will continue to have trouble with language and will eventually be diagnosed with a 'developmental language delay'. Others will *appear* to 'grow out of it' – catching up to their peers by grade primary – but persisting difficulties will emerge with reading, and later in elementary school and high school as expectations

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for spoken and written language become more complex. Also, at this stage in grade primary, they may score in the range of 'normal', but their scores are in the *lower* part of that range. Finally, other children known as 'late bloomers' catch up to their peers, and continue to have typical language development.

Why see an S-LP? An assessment will tell a parent whether or not their child's skills are in the range of what is considered 'age appropriate', if their child is at risk, or if the child does have late language emergence. Intervention with an S-LP can then help children to develop their language skills.

Developmental Language Delay

Developmental language delay (DLD) is typically identified during the preschool years. Some of these children would have had late language emergence, but most do not. DLD can involve expression and/or understanding of language and affect a child's vocabulary and grammar development. These children may have normal speech sound, social, play, motor, and cognitive development otherwise. This delay in language development can persist without intervention, and additionally impact a child's social interactions, literacy skills, and success in school.

Why see an S-LP? An assessment by an S-LP can reveal a child's strengths and areas of weakness, identify whether or not their communication abilities are age appropriate, inform recommendations to help support them at school, and lead to intervention so these children can improve.

Stuttering

Although there is a natural recovery rate of 65-80% within three to five years after the stuttering started, around 20% of children will have persistent stuttering through their teen years and adulthood[3] (without treatment). There are factors that increase the risk that stuttering will not naturally recover: family history of stuttering, male gender, stuttering that has continued or worsened over 6-12 months, and later age at onset. Prevalance is around 1.4% for children ages 2-10 and 0.5% for ages 11-20[4].

Why see an S-LP? Rather than taking a "wait and see" approach to see if a child's stuttering naturally recovers, it is advised that parents have their child's speech assessed by an S-LP. An S-LP can measure and analyze stuttering behaviours and a child's history to determine if their profile is consistent with stuttering that is more likely to persist and require intervention, or is more likely to naturally recover. They can educate parents about how to best respond to their child's stuttering, monitor and reassess ("*watch* and see" approach), and initiate intervention if warranted.

Speech Sound Delays and Disorders

Speech Sound Delay

Speech is an incredibly complex skill – it requires specific ordering of motor movements, coordination between many body structures, special control of breathing, a sequence of valving to modify air flow, and precise timing. Some sounds take children many years to master. During this period they make 'developmental errors' – predictable errors in articulation – such as when a child says 'f' or 'v' for 'th' ('three' → 'fee'), and 'phonological processes' – errors in applying the rules of speech sounds – such as saying 'w' for 'r' ('red' → 'wed'). It is not until about age 5 that a child will be completely intelligible to a stranger – as any parent who has needed to translate their child's speech can tell you.

If a child has not mastered specific speech sounds by a certain age, it may mean the child has a speech delay. The child's errors are following a typical developmental pattern, but are immature for his or her age. Such a delay can persist and result in frustration for the child, ridicule from peers, hesitancy to speak, an impact on language development, and later reading difficulties.

Motor Speech Disorders

Unlike a 'speech delay' where the child's errors are similar to those of a less mature child, a child with a 'speech disorder' makes errors that are not expected at any age. For example, while it is normal for a very young child to say 'tape' for 'cape' ('fronting'), it is not normal to say 'cape' for 'tape' ('backing'). Sometimes these speech disorders are related to a condition present from birth, such as Down syndrome or cleft lip/palate. Sometimes they are considered a 'motor speech disorder', such as 'childhood apraxia of speech' in which a child has difficulty programming speech sound sequences at the level of the brain. These children benefit from early identification and treatment.

Lisps

There are several types of lisps. Some are developmental speech errors that are not a concern unless they continue past a certain age. If this type of lisp does persist, it is considered a 'speech delay'. Other types of lisps are not considered typical at any age, and are considered a 'speech disorder'. In cases where a lisp indicates a speech delay or disorder, early intervention is recommended so that the child can learn the correct motor pattern for the affected speech sounds. Without treatment, lisps continue and these children (and later as adults) can experience ridicule and discrimination as others make assumptions about their intelligence based on their speech.

Why see an S-LP? An S-LP can identify whether or not a child's speech is developing as expected, diagnose speech sound delays and disorders, and provide treatment so that the child can master speech sounds and/or

acquire more intelligible speech.

Reading Disorders: Dyslexia vs Reading Comprehension Deficit

Too frequently, children and adolescents with reading difficulties are classified as having a 'learning disability' without pursuing further assessment regarding the underlying nature of the disability. **Dyslexia** is a reading disorder with a *phonological basis* where the difficulty is in decoding the written letters and associating them with speech sounds. Other children do not have difficulty with decoding letters, but have a **reading comprehension deficit**. These children have trouble understanding the *content* of what they read – the *meaning* of the *words* (often words we only encounter in written text and less often in spoken language) and the *grammar*. Children may also experience *both* dyslexia and reading comprehension deficit. Understanding the underlying cause of the reading difficulty guides the choice of intervention approach, and is more likely to result in a successful outcome for the child.

Why see an S-LP? S-LPs are able to assess children for reading disorders, differentiate types of reading difficulties, make recommendations for intervention, and deliver treatment.

Other Diagnoses

There are of course additional diagnoses that may include communication disability that are not described here. These include:

- Down syndrome
- autism spectrum disorders
- cerebral palsy
- developmental delay
- traumatic brain injury including concussion
- voice disorders
- social communication disorder

What to Expect From Working with an S-LP

Assessment

A clinical assessment can answer many different questions, such as:

- What have the child/adolescent, their parent(s), and teachers noted about their communication? What are the concerns that led to the request for an assessment?
- Are this child/teenager's communication skills within the range of what is expected for their age?
- If the child/teenager's performance is below what is typical, by *how much* is it different? How severe is the problem?
- What is the impact of this difference in communication skills on the child/teenager's life? Is it impacting how they socialize, behave, learn, and how they feel about themselves?
- What are the child/teenager's specific strengths? What are their specific areas of difficulty?

- What diagnostic label best fits what the child/teenager is experiencing?
- What aspects of the child/teenager's history, personality, and environment are relevant?
- How likely is the child/adolescent to improve without treatment?
- How likely is the child/adolescent to improve with treatment?
- If treatment is appropropriate, what would be the next steps?

An assessment will likely involve the following elements:

- Formal testing: using a published tool, the child/adolescent will complete a variety of tasks introduced by the S-LP, and their performance on the tasks will be compared to a large data set
- Informal testing: the S-LP will use different tasks and tools to elicit and measure communication behaviours and compare the child/teenager's performance to others their age
- Language sample analysis: the S-LP will elicit, record, and analyze a sample of the child/teenager's speech/language in play, conversation, and/or story-telling to measure different aspects of their communication skills
- Observation: the S-LP will observe the child/adolescent during their session, at home, and/or at school to document and analyze their communication behaviours in these contexts
- Interview and case history: the S-LP will talk with the child/teenager's parent(s) and teachers to discover pertinent information about their skills and history and review documentation and reports completed by other professionals (e.g., teacher, family doctor, pediatrician, psychologist, ENT specialist, early interventionist, resource teacher)
- Report: the S-LP will provide a written report summarizing the findings of the assessment with recommendations

Post-Assessment: Recommendations and Planning

Based on the outcomes of the assessment and discussion with the child/teenager and their parent(s), the S-LP will make recommendations:

- If the child/teenager's communication abilities are age appropriate:
    - Information: the S-LP will provide information on typical communication development
    - Contact: The parent(s) can contact the S-LP for re-assessment if any concerns arise
- If the child/teenager's communication abilities are age appropriate, but there are risk factors that warrant monitoring of their development:
    - Information: the S-LP will provide information on typical communication development and offer tools/guidance to monitor their child/teenager's ongoing development
    - Strategies: the S-LP can provide information or direct coaching for strategies that will support language/speech/fluency development
    - Contact: the parent(s) can contact the S-LP for re-assessment if any concerns arise
    - Follow up: the parent(s) can schedule a follow up in several months

- If the child/teenager's communication abilities are consistent with a communication delay or disorder:
  - Information: the S-LP will provide information on typical communication development and how the child/teenager's skills differ
  - Strategies: the S-LP can provide information or direct coaching for strategies that will support language/speech/fluency development
  - Intervention: the S-LP will offer specific recommendations for how to proceed with intervention for the child/adolescent
  - Referral: the S-LP may suggest and make referrals to different professionals to support the child/teenager in other areas (e.g., pediatrician, psychologist, resource teacher, early interventionist, ENT specialist)
  - Prognosis: the S-LP will make a clinical judgment about how the child/teenager's communication skills are likely to develop with or without treatment

Intervention

If intervention is warranted and agreed to by the child/teenager and their parent(s), there are different approaches and parameters that may be considered depending on the needs, age, and preferences of the client and their family:

- Parent- or clinician-delivered: the S-LP may provide the intervention directly, train the parent(s) how to work on goals with their child, or suggest a combination of both
- Location: the intervention may take place in a clinic, school, the child/teenager's home, or a combination
- Frequency: the frequency of sessions may vary from several times a week to once a month
- Length of sessions: sessions may range from 30-60 minutes in length
- Clinical approach: the S-LP will develop a treatment plan based on what was revealed during the assessment, their clinical judgment, their knowledge of the research literature, and the preferences of the child/teenager and their parent(s)
- Augmentative communication strategies and systems: sometimes a child/teenager will benefit from 'augmenting' or 'supplementing' their verbal communication with non-verbal strategies such as hand signs or pictures while they work on their speech so that they can successfully communicate with others
- Alternative communication systems: sometimes children/teenagers who are non-verbal have more success with picture- or text-based systems so that they can communicate with others
- Individual or group: children/teenagerse may do best if seen one-on-one with the S-LP or in a group with others with similar goals
- Home practice: most intervention will involve some type of home practice in addition to sessions with the S-LP – this component is critical to achieving progress
- Home programming: in some cases, after training with the S-LP, the parent will take on the role of doing regular activities at home with their child that are provided by the S-LP who checks in by phone

and in person according to a regular schedule to update goals and materials and to provide ongoing support

- Counselling: the S-LP will provide support to the child/teenager and their parent(s) related to coping with a communication disability
- Collaboration: the S-LP will communicate and work with the child/teenager's parent(s), teacher(s), and other professionals

Accessing and Funding S-LP Services in Nova Scotia

S-LPs work in the public health and education systems and in private practice. In the public system, services for preschool children are provided by the Nova Scotia Hearing and Speech Centres (www.nshsc.nshealth.ca). Students in publicly funded schools can receive services through the Regional Centres for Education. Private practitioners work in clinics or see clients in their homes or school. They can be found through the Speech and Hearing Association of Nova Scotia (www.shans.ca/our-professionals/).

Private practice services for children and adolescents are paid for by their parent(s)/guardian(s). Many private insurance plans cover S-LP services. In Nova Scotia, professional fees for treatment typically range from $100-$120/hr. Contact your insurance provider to find out what you can claim.

If you have any questions about what you read here or would like more information about services, you are welcome to contact me.

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[4] Craig. A., & Tran, Y. (2005). The epidemiology of stuttering: The need for reliable estimates of prevalence and anxiety levels over the lifespan. *Advances in Speech Language Pathology, 7*, 41-46. doi: 10.1080/14417040500055060