

Developmental Disorders

Autism spectrum disorder (ASD)

ASD is a complex neurodevelopmental disorder that affects the way the child's brain functions. Children with ASD typically have difficulties with social behaviours, communication, and exhibit restricted, repetitive, and stereotyped behavioural patterns. The cause of ASD is not entirely known, though there is considerable evidence that genetics play a part.

Children with ASD typically show delays and disturbances in their language development. Children who are Deaf/deaf may display language deprivation, which can present like a language delay, but which is, in fact, due to a mismatch between the language used in the home and the language the child can access. The important and fairly consistent difference, however, is that a child who is Deaf/deaf typically shows communicative attempts, whereas typically the child with autism does not. If concerns arise, it is essential that parents seek out clinicians with an understanding of how ASD presents itself in a child who is Deaf/deaf or hard of hearing to ensure accurate diagnoses and avoid both missed and mis-identifications.

Intellectual Disability (also called developmental delay)

An Intellectual Disability involves delays in everyday living (i.e. adaptive behaviours) and lower scores on formal intelligence tests. Examples of adaptive behaviours include communication competence, personal care skills, functional reading and writing, and social skills. These delays must be apparent during childhood.

A child who is Deaf/deaf or hard of hearing may have an intellectual disability as a result of associated risk factors. For example, many children with Down syndrome have both some degree of hearing loss and an intellectual delay, and a child who suffered from meningitis may have changes or damage to the brain, resulting in lowered intellectual functioning as well as damage to the auditory system. Since these children present with signs of both an intellectual disability and hearing loss, a comprehensive psychological assessment is essential to accurately identify both.

Unfortunately, children who is Deaf/deaf and hard of hearing without an intellectual disability may show lack of communication skills related to their language deprivation in the early years rather than deficits in their ability to think and reason. Mainstream testing of IQ typically utilizes tests of intelligence that are language-loaded – meaning the child needs a good grasp of language for mastery of the tests. These tests may be both inappropriate and unfair for use with children who are Deaf and hard of hearing depending on factors such as their exposure to and mastery of language. Use of these tests of intelligence by uninformed clinicians may yield both false negatives (concluding that children who are Deaf/deaf are intellectually intact when they are not) and more commonly false positives (concluding that children who are Deaf/deaf have an intellectual disability when, in fact, they do not). It is important to differentiate a true developmental delay from the far-reaching effects that lack of language access may have on childhood development of cognitive (thinking) and linguistic (language) skills.

Parents are urged to ensure any formal testing of their child is done by clinicians knowledgeable of these issues.

Affective Disorders

Affective disorders refer to mental health disorders that affect moods such as anxiety and depression. These are among the most common mental disorders among children and there appears to be an even greater prevalence of these emotional and behavioural disorders in children who are Deaf/deaf or hard of hearing. Although being Deaf/deaf or hard of hearing in itself does not cause these disorders, it is again likely that risk factors such as language deprivation, neurological vulnerability, family issues, and barriers created by society all influence the child's overall development. The outcome of this may potentially have an important impact on how children who are Deaf/deaf and hard of hearing experience and react to the world around them.

Anxiety Disorders

Anxiety disorders are one of the most common mental health disorders among all children. Some of the manifestations of anxiety in children include the following:

- Avoiding school or extracurricular activities
- Repeated requests for reassurance from parents
- Becoming easily upset frequently
- Experiencing sleep difficulties and nightmares
- Complaining of stomach cramps, light-headed, headaches, vomiting and diarrhea sleep difficulties and nightmares
- Feeling angry, sad, hopeless, embarrassed out of proportion to the situation

Some research studies suggest that children who are Deaf/deaf and hard of hearing may be more vulnerable to developing anxiety disorders given a more limited understanding of the world around them (incidental learning, theory of mind), difficulties communicating, and feelings of isolation. In a world that does not make sense (i.e., language, theory of mind, emotions etc.) in addition to the behaviours seen above, children who are Deaf/deaf and hard of hearing may seek to impose order upon their chaos through engaging in preservative and obsessive behaviours.

Suggestions for parents to minimize anxiety in children who are Deaf/deaf and hard of hearing include the following:

1. Respond to issues associated with being Deaf/deaf and hard of hearing in an adaptive way that will positively influence the child's self-esteem.
2. Strive for clear, meaningful and accessible communication.
3. Expose the child who is Deaf/deaf or hard of hearing frequently to role models who are Deaf/deaf and hard of hearing to foster a stronger sense of belonging and a better understanding of the world.
4. Observe your child for behaviours and/or emotions that indicate they are feeling anxious.

Depression

Some studies report that children who are Deaf/deaf show higher rates of depression than children with typical hearing. However, this higher rate of depression is not directly related to the actual hearing loss. These children may share the same risk factors of being teased, mistreated, or neglected, but children who are Deaf/deaf and hard of hearing may also have

significant problems making themselves understood to peers and adults with typical hearing, which contributes to the overall higher rate of depression. Once again, this highlights the association between language and the manifestation of psychiatric disorders such as depression.

Some of the following are signs of depression in children with typical hearing:

- Frequent vague, non-specific physical complaints such as headaches, muscle aches, stomach aches or tiredness
- Frequent absences from school or poor performance in school
- Talk of or efforts to run away from home
- Outbursts of shouting, complaining, unexplained irritability, or crying
- Being bored
- Lack of interest in playing with friends
- Alcohol or substance abuse
- Social isolation, poor communication
- Fear of death
- Extreme sensitivity to rejection or failure
- Increased irritability, anger, or hostility
- Reckless behaviour
- Difficulty with relationships

Parents need to be aware of how and why these signs of depression may be expressed by children who are Deaf/deaf and hard of hearing. For example, a child who is Deaf/deaf or hard of hearing who was deprived of language during their early years may have difficulty communicating thoughts of running away from home, fearing death, or expressing non-specific physical complaints. Children who are Deaf/deaf and hard of hearing who feel isolated attending a school program with peers who have typical hearing, may not have close relationships, feel somewhat bored and not have any regular playmates. In such cases, even greater care must be taken when parents and/or clinicians consider depression to ensure accurate identification.

Behaviour Regulation Disorders

Attention Deficit Hyperactivity Disorder (ADHD)

ADHD is a common neurobiological disorder characterized by:

- hyperactivity (difficulty regulating activity level)
- impulsivity (difficulty inhibiting behaviour) and/or
- inattention (difficulty attending to the task at hand)

Teachers and parents often report that children who are Deaf/deaf and hard of hearing are fidgety, easily distracted and not able to maintain attention on task. It is important to recognize, however, that these behaviours do not necessarily lead to higher rates of ADHD among children who are Deaf/deaf and hard of hearing, especially when these children are assessed using accessible and appropriate measures.

It appears that children with a hereditary cause of hearing loss are not at a greater risk of developing ADHD, yet children with acquired hearing loss are at a significantly higher risk of doing so. This difference is likely related to the medical conditions causing the hearing loss, the family dynamics, and the language delays which distinguish these two groups. If a child becomes Deaf/deaf or hard of hearing as a result of an infection, disease, or trauma, parents should be vigilant in observing and understanding their behaviour. However; children who exhibit symptoms of ADHD do not always have the disorder; their behaviours may be related instead to communication difficulties, boredom, and isolation from mainstream activities.

Oppositional Defiant Disorders (ODD) and Conduct Disorders (CD)

ODD and CD are a group of behavioural and emotional problems in children and youth. ODD is characterized primarily by aggressiveness and a tendency to purposefully bother and irritate others, while children and adolescents with CD have great difficulty following rules, accepting authority, and behaving in a socially acceptable way.

The list of risk factors that contribute to the development of behavioural disorders in children with typical hearing is the same as for many children and youth who Deaf/deaf and hard of hearing. In addition to these risk factors experienced by both groups, children with sensorineural (nerve) hearing loss rather than a conductive (bone) loss seem to show significantly higher rates of these types of behaviour problems than children with typical hearing. This is likely because some causes of hearing loss, such as meningitis, may contribute to negative behaviours even though being Deaf/deaf or hard of hearing is not the cause.

Other risk factors for children who are Deaf/deaf and hard of hearing associated with ODD and CD are as follows:

- academic difficulties
- vulnerability to maltreatment (e.g. bullying, abuse)
- communication difficulties with parents
- overly harsh, controlling and intrusive parenting practices

It should be noted that in addition to the above risk factors, there appear to be strong links between language and behaviour problems for both children with typical hearing and children who are Deaf/deaf and hard of hearing. It is not clear whether problems in language development lead to behaviour problems, if language problems are the result of behaviour problems or whether both language and behaviour problems are actually both part of an overall developmental delay. It is clear, however, that children who are Deaf/deaf and hard of hearing who have parents with typical hearing are considered at even a greater risk of behaviour problems as either a direct or indirect function of the language deprivation they may have experienced in addition to other known risk factors. It should be noted that children who are Deaf who have parents who are also Deaf can also have behaviour problems, but likely for different reasons.

Substance Abuse

The principles underlying addiction are the same for adolescents with typical hearing as for adolescents who are Deaf/deaf and hard of hearing. The difference, however, is that youth who are Deaf/deaf and hard of hearing may experience higher levels of stress in their lives

related to communication difficulties, isolation, relationships, educational and employment opportunities. As a result, adolescents who are Deaf/deaf and hard of hearing may turn to alcohol or drugs as a way of coping with their stress.

An adolescent who is Deaf/deaf or hard of hearing who abuses substances may not have information on alcohol/drugs and treatment programs in a way which is accessible to their peers with typical hearing. Frequently, recovery programs are group-based and support systems are offered through peer telephone contact, which may pose difficulties for individuals who are Deaf/deaf and hard of hearing.

Self-Harm and Suicide

Self-harm can be a child or youth's way of coping with emotional pain. Emotional pain might include feelings such as sadness, frustration, confusion, self-loathing, guilt or rage. Self-inflicted pain can sometimes be a way of expressing feelings that the child doesn't know how to express using language. For example, the action of cutting seems to temporarily provide a distraction from emotional pain; children often report that it makes them feel better, at least for a short time. However, the feelings return and the cycle repeats with the urge to hurt themselves again.

It is important for all parents to understand that self-harm behaviour is not just "looking for attention," as this may trivialize the depth and extent of the pain their child is actually feeling. Children who are Deaf/deaf and hard of hearing may experience more risk factors than children with typical hearing, which may contribute to overwhelming feelings which may lead to self-harm. These risk factors include communication issues, isolation, loneliness, and difficulties accessing mental health services. Although there is a significant gap in the research literature in terms of absolute numbers of children who are Deaf/deaf and hard of hearing who self-harm, the more important point is that parents must be aware of these behaviours and risk factors leading to it.

Children who die by suicide may be feeling so much emotional pain that they feel they have no other option. Young people, including those who are Deaf/deaf and hard of hearing, may feel tremendous pressure in many areas of their lives, including home, school, and peer groups and often are unable to see solutions to their problems. When this pressure exceeds a child's ability to cope, suicide may seem like an option. Parents, teachers and communities must be aware of these signs of stress in youth. The following links provide parents with more information on the topics of self-harm and suicide:

http://www.signhealth.org.uk/v3/wp-content/uploads/2014/02/suicide_leaflet_v8.pdf

<http://www.annals-general-psychiatry.com/content/6/1/26>