Speech and language disorders in pre-school children

Disorders in speech and language development are a common childhood problem, and affect approximately 10% of children aged 5 years, with more boys than girls being affected.

Language can be spoken (speech) or be produced through gestures or written language. Language involves understanding and using sounds and words and combining these in sentences. Children learn rules for combining sounds and words, and for using language in a socially appropriate manner.

Disorders in speech and language development may involve other areas of development as children get older such as reading and spelling. Problems with speech, language and learning often run in families.

Language develops rapidly and easily in most children despite variation in environment and intelligence. Among the exceptions to this are children with intellectual disability, hearing loss, central nervous system impairment affecting the speech production mechanism, Autism Spectrum Disorder, emotional disturbance or extreme environmental deprivation. In addition there is a group of children with developmental speech/language disorders where the cause is thought to be atypical prenatal brain development.

The following assessments may be necessary to delineate the cause of the communication impairment. This team of professionals may consist of a speech pathologist, audiologist, clinical psychologist, and paediatrician, depending on the child's difficulty.

Assessment of hearing
Hearing loss can be permanent or transient. Transient loss is usually due to otitis media with effusion which causes a mild to moderate hearing loss. Both transient and permanent hearing loss may be associated with delayed language development. Sensorineural hearing loss ranges from mild to profound. It can be unilateral or bilateral, congenital or acquired. It can be caused by anatomical abnormalities, genetic disorders, prematurity with low birth weight and other perinatal complications, drugs, trauma or diseases.

Assessment of intellectual functioning
Intellectual ability is conventionally measured in terms of developmental milestones and performance on cognitive tasks. It can be difficult to separate speech and language development from intellectual ability in the young child; however it is generally true that children with intellectual disability will be delayed in their development of speech and language.

Assessment of Autism Spectrum Disorder
Children with Autism Spectrum Disorders commonly have difficulty in developing speech and language and in understanding the social use of communication. They can also be disordered in the non-verbal aspects of communication such as eye contact, use of gesture, and facial expression. Many children with autism have severe problems in understanding language, but can also have any other type of speech and language problem seen in non-autistic children.

Assessment of emotional functioning
Studies have found that mother-child interaction, the mother's level of education and support available to her within the family, and the stimulation provided for the child in the home are predictors of language skill.
Children with communication disorders frequently have significant behaviour problems which may be related to the frustration involved in communicating, or due to factors inherent in the child, for instance children who have an Autistic Spectrum Disorder.

Developmental speech and language disorders
There are a group of children who have speech and language disorders for which no cause can be found – the conditions previously listed have been excluded. It is thought likely that these children have atypical prenatal brain development.

When to refer for an assessment
Early referral is important for children with communication impairment, and is welcomed by specialists. There may be long waiting lists for services such as speech pathology and audiology, so this must be taken into consideration. Early intervention can help prevent behaviour problems related to frustration, and assists the child in keeping up with appropriate developmental milestones.

In treating speech/language disorders, the current view is that in most cases improvement is not due to maturation, but rather the child learns to use alternate strategies to achieve functional communication. Early intervention allows the child more time to develop communication skills before commencing formal education.

Table 1 details the indicators of moderate communication disorder which necessitate referral to specialists – speech pathologists, audiologists, clinical psychologists, and paediatricians dealing with communication disordered children. In addition, any child who consistently loses previously developed words or is considered to have regressed in language development, speech clarity, or intellectual development should be promptly referred to a specialist.

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<thead>
<tr>
<th>Table 1</th>
<th>INDICATORS OF MODERATE COMMUNICATION DISORDER</th>
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<tbody>
<tr>
<td>6 months</td>
<td>• no response to sound</td>
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<tr>
<td></td>
<td>• no cooing, laughing, vocalization, eye contact in interaction with a familiar adult</td>
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<tr>
<td>12 months</td>
<td>• no localizing of sound, no babble</td>
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<tr>
<td>20 months</td>
<td>• no meaningful words</td>
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<tr>
<td>24 months</td>
<td>• fewer than 20 words</td>
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<td></td>
<td>• not pointing to items on request</td>
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<tr>
<td>30 months</td>
<td>• no 2 word combinations</td>
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<td></td>
<td>• not understanding simple instructions without gesture</td>
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<tr>
<td>36 months</td>
<td>• less than 50 words</td>
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<tr>
<td>48 months</td>
<td>• not understood within the family</td>
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<td></td>
<td>• not using early grammatical constructions eg. verb endings (running), plurals (cats)</td>
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<td></td>
<td>• stuttering with signs of tension, particularly if there is a family history of stuttering</td>
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<tr>
<td>52 months</td>
<td>• not understood outside the family</td>
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<td></td>
<td>• not using complex sentences</td>
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<tr>
<td>60 months</td>
<td>• not understanding prepositions (in, on, under, beside, behind)</td>
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<tr>
<td></td>
<td>• speech not fluent, complex</td>
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<tr>
<td></td>
<td>• not reasonably clear</td>
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Adapted from "Indicators of moderate language delay", Royal Children’s Hospital Department of Speech Pathology, The Australian Paediatric Review Training Program.

The role of the speech pathologist
Speech pathologists assess children’s speech and language problems through use of standardized tests, analysis of the child’s language during play and interaction with parents or other familiar people, and a history of the child’s development provided by parents or carers. Treatment is based on the child’s individual pattern of strengths and weaknesses in speech and language areas. Sometimes an alternative communication system such as signing will be suggested, generally for short term use only. Signing is easy to learn, doesn't stop the child from speaking, diminishes frustration, provides more information for the listener if the child is hard to understand, and seems to increase the rate of vocabulary development in some children with restricted vocabularies. The speech pathologist may see the child and parents together, or work with them in a group setting. Intervention may occur in a treatment centre or in the child’s home.

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References
Temper tantrums

Why and When? Temper tantrums occur occasionally in almost all toddlers. They usually commence in the second year, as a response to the developmental tasks of mastery and autonomy. Typically a tantrum occurs when a toddler fails to master a task, or when parents set limits which "interfere" with the toddler's self perceived independence for example by saying "no!" The child responds with passion and intensity, screaming, kicking and often throwing him or herself to the floor. Some children hold their breath, turning blue, and may even lose consciousness for a brief time. The loss of control during a tantrum can be brief or prolonged, depending on the child's own capacity to regain control, and on the parents reaction to the behaviour.

Terrible Two's Temper tantrums, oppositional behaviour, eating fads and difficulties around toileting may all coincide in the "terrible two's". However, some children begin temper tantrums around 15 months, and others continue until 4-5 years. Some children become expert at using temper tantrums to gain attention and get what they want, eg. in the supermarket. Temper tantrums cause problems within families if:
• parents do not understand the developmental nature of the tantrums
• parents react by setting up a power struggle for control, or becoming very punitive
• tantrums are frequent and prolonged, interfering with competence and on-going development
• tantrums are associated with other disorders eg. intellectual disability, conduct disorder, pervasive developmental disorder.

Management Temper tantrums are best managed within the family by parents staying calm, ignoring the behaviour by moving away and saying nothing, and praising appropriate behaviour when the child settles down. Observant parents will be aware of what sets the tantrum off, eg. may distract a child who is attempting an overly difficult task onto one which can be achieved, or offer the child appropriate choices when setting limits. For older children, taking firm control, eg. calmly initiating time-out to help the child regain composure, and discussing any precipitating issues at a later stage (not during the tantrum), will minimise any reinforcement of the behaviour. Tantrums occurring in public places should be ignored, or dealt with by calmly removing the child, eg. take the child out of the supermarket, then ignore the behaviour until he/she calms down. Some children are over-stimulated in a supermarket and are best left, under supervision, at home whenever possible.

Most children become very aware of the effects their tantrums have on the family and may use them as a manipulative tool. Most "just can't help it" at that stage of their development and will grow through the phase with appropriate parental management. Some children may become extremely distressed and frightened by their loss of control, and need to be held (rather than cuddled) for a few minutes.

The child who holds her/his breath Parents are usually very anxious if their child has breath holding episodes, particularly with associated loss of consciousness, which may mimic a seizure. A seizure is extremely unlikely if the episodes always occur with a precipitating factor; crying precedes the breath holding, and the blueness appears during rather than after these events. Parents must be helped to ignore the breath holding behaviour just as they do for the more overt temper tantrum.

When parents need extra help If there are concerns about severity of temper tantrums, associated developmental problems, or medical conditions, help may be sought from general practitioners, general or community paediatricians, child psychologists, or child assessment and early intervention teams.

However, if parents understand the developmental nature of temper tantrums, and deal with them in a calm consistent way, the vast majority of children will learn self containment as they develop competence and independence.

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FURTHER READING
Every Parent: A positive approach to children's behaviour
Author: Matthew R. Sanders Ph.D. 1992, p291
Price: $24.95 (plus $4.00 for mail orders)

'Every Parent' is a guide for parents of children aged 1-12 years written by Dr. Sanders, an Associate Professor in Clinical Psychology at the University of Queensland. The author offers practical step-by-step strategies and advice on the management of common behaviour and development problems in pre-adolescent children.

Problems discussed include tantrums, sleeping and bedtime problems, bedwetting, bullying, disruptive behaviours, feeding problems, homework, swearing and lying.

This book is widely recommended by consultants in the Royal Children's Hospital behaviourat clinics but unfortunately it is not readily found in bookshops. The book has been reprinted every year since it was published in 1992.

'Every Parent' is a positive parenting guide and although not inexpensive, is highly recommended and should be available in every parent library.

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ROYAL CHILDREN'S HOSPITAL - MELBOURNE

Available from the Child Health Information Centre, a specialist bookshop, information and referral centre for health professionals, parents, teachers, adolescents and students.

A complete booklist is available for mail orders:
Phone (03) 9545 6429, 9.50am - 4.00pm weekdays.

Making Reading Easier

Much of the information that is currently given to patients, parents and the public is difficult to read. An estimated 15% of the adult population have reading difficulties, usually among the group of parents whose children have the poorest health.

The Step to Health Project in Norwich developed guidelines on the presentation of written material in consultation with people with poor literacy skills. "How to make written information more accessible" covers many aspects of the message including knowing your audience, identifying the essence of the information, making the layout and design simple, using graphics for illustration, avoiding the passive voice, keeping sentences short and vocabulary simple, and choice of font type and line spacing all good, practical suggestions. The authors illustrate their points by presenting 'good' and 'bad' examples of health information.

To the argument that making information simple enough for poor readers patronises those with adequate skills, the authors reply that well-written material is likely to be appreciated by everyone and that "complex concepts can be communicated more easily if reading does not require excessive concentration."