Speech Disorders in Children

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There is nothing more elemental in all existence than communication - it is the very essence of life. All creatures great and small, even unto the tiny amoeba, are connected in an endless ebb and flow of messages. But it is in humans that we see its ultimate expression in the marvellous vehicle of language.

In a highly competitive, upwardly mobile society of ours, verbal skill is very essential. Effective speech is of the utmost importance if one is to gain and maintain a status in the society, or to get the material possessions which are constantly held up to us as goals to be desired.

Disorders of speech and language in childhood are not uncommon. Therapy for them requires understanding of the processes involved in the normal development of speech and language function.

Development of Speech and Language

Development of speech and language skills depend upon a broad range of activities of many organ systems. The first stage audition, requires an intact peripheral auditory mechanism. The second stage is the transmission of sound from the organs of hearing to the brain and the organization of the transmitted impulses for a response. The third stage, the verbal response, involves respiration, phonation, resonation, and articulation. A high degree of intricate cortical and neuromuscular integration is required for all these activities.¹

Maturation of a child's speech and language normally keeps pace with the maturation of the total organism, and follows a fairly predictable pattern up to the age of about six years.²

0-6 months. The early stages of speech and language development reflect the child's reception of speech sounds and are revealed by his responses to them. By four to six months, the infant normally demonstrates ability to discriminate among speech sounds by beginning to babble close approximations of a number of early consonant sounds, principally m, n, p, b, k, g, t and d.

6-12 months. By six to eight months, the child starts exhibiting a rather wide repertoire of babbling combinations of the consonants with a few vowels such as ba-ba, ma-ma, da-da and so on. At ten to twelve months, the child begins to discover that particular combinations repeated often will bring his mother to pay some attention to him or to administer to some want. By twelve months, he should be using at least one to three such combinations meaningfully.

1-2 years. Between twelve and eighteen
months, there is relatively little increase in the expressive vocabulary. The child is rapidly expanding his comprehension vocabulary, and the number and variety of his responses to meaningful vocalizations of others.

In eighteen to twenty four months, he begins to try to put together many of the combinations he has been learning, and by the age of about twenty four months, two and three word phrases develop. He begins to use connected speech for a purpose, such as 'go', 'bye-bye', 'want cookie', and so on.

3-4 years. Between the ages of three and four years, the child becomes very conscious of the importance of speech and the power it gives him. Because his speech and language are unstable and he is non-fluent, the process of communication can be easily interfered with, and speech troubles may have their origin during this period.

By the age of three years, the child should have mastered the use of all vowels, and consonants like w, m, n, p, b, k, g, t and d. At this age he is generally 70-80% intelligible, and uses an average of three words sentences. At the age of four, he should be 100% intelligible and use four word sentences.

5-6 years. At five years, he should be using some sound clusters such as 'tr', 'bl', 'pr', 'gr' and use of f, v, r and l; generally without error but these may not be mastered until the age of six years.

By the age of six years the child's general language structure is stable, the non fluency has passed, and he has mastered all the consonant sounds with the exception perhaps of sibilants and sibilant combinations, primarily 's' and 'z'.

Any condition which seriously impairs or disrupts the normal development of the child physically, psychologically or socially, may disrupt the development of his speech and language skills. The major factors influencing the development of speech and language are as follows:

(i) mental retardation; (ii) abnormalities of neuro-muscular functions, e.g. cerebral palsy; (iii) structural inadequacies, such as cleft palate and cleft lip; (iv) serious illness or brain injuries; (v) sensory deprivation such as deafness; (vi) emotional disorders such as childhood schizophrenia and infantile autism and other (vii) social and environmental factors.

Delayed Speech and Language

Some children fail to acquire any usable language at all; they may be speechless or echo-lalic or have at best a primitive and inadequate gesture language. Most of the profoundly mentally retarded belong to this category, but some emotionally disturbed or congenitally deaf children may also show little or no language. The second and largest group includes those children who are delayed in language acquisition. They know of some language, but it is so deviant or infantile and inadequate in its structure that they are truly handicapped in communication. These include children who are hard of hearing to a lesser degree or emotionally disturbed, as also those who may possess other learning disabilities, problems in motor coordination, hyperactivity, or environmental deprivation. Finally, in the third group, we find children who once had possessed adequate hearing but have lost it, and children with aphasia or neurological impairments resulting from illness or trauma involving the central nervous system.

Speech Disorders

The speech disorders can be broadly classi-