

INTRODUCTION OF VOICE DISORDERS IN CHILDREN

Dr. Tushar Vijayrao Dhawale¹

¹H.O.D. & Associate professor, Department of Kaumarbhritya (Balroga), Ayurved mahavidyalaya, Pusad, Dist. Yavatmal, Maharashtra, India.

ABSTRACT

In present era, Speech disorder is one of the burning problems in childhood age. Speech disorder can make the child physically, psychologically, emotionally and socially handicapped. As communication is not possible all round development of child will be affected. They may also have difficulty with personal care, social skills, thinking skills, such as decision making, problem solving, and self direction and need round the clock care. Many speech problems are developmental rather than physiological, and as such they respond to remedial instruction. Language experiences are central to a young child's development. In the past, children with speech difficulties were routinely removed from the regular class for individual speech and language therapy. This is still the case in severe instances, but the trend is toward keeping the child in the mainstream as much as possible. In order to accomplish this goal, teamwork among the teacher, speech and language therapist, audiologist, and parents are essential. Speech improvement and correction are blended into the regular classroom curriculum and the child's natural environment. Children whose physical problems are so severe that they interfere with or completely inhibit communication can frequently take advantage of technological advances that allow the individual to make his or her needs. Speech is the vocalized form of human language. Humans express their thoughts, ideas, and feelings orally to another through a series of complex movements that alter and mold the basic tone created by voice into specific, decodable sounds. Speech is a complex activity with deep roots in human culture, evolution, language, anatomy and physiology, and brain development.

Keywords: Sound, Speech, Vocal, Aphony and Larynx.

1. INTRODUCTION

Voice is sound - vibration. A voice is termed "disordered" when the vocal quality of an individual is altered /changed in such a way that it is thought to be abnormal to the listener. A voice disorder happens because the vocal cords that produce sound are damaged. The vocal cords are the muscles in the throat that are responsible for making sounds and words. Children can damage their vocal cords by shouting, screaming, and talking extremely loudly and very often. Their voice may become harsh and they may find it very difficult to talk. Also, when they try to talk, their throat may hurt a lot. Voice disorders are sometimes called —voice abuse. The onset and development of these disorders can be "sudden" or "slow." All disorders do not have known etiologies, and some may occur as a result of numerous etiologies. Very few disorders are attributed to one known cause. Voice disorders are not common in children. Also, they are usually temporary.

2. METHODOLOGY

Classification of Voice Disorders:

Voice disorders are classified into three major categories. It should be noted that some disorders might appear in all categories as a result of multiple etiologies.

1. Functional Voice Disorders: Functional disorders encompass all disorders that result in physical change, but do not have a known cause.
2. Organic Voice Disorders: Related to physical changes in larynx
3. Neurological Voice Disorders: Related to muscle control and innervations of muscles.

2.1. Functional Voice Disorders:

They are of two types:

- Hypo functional: Decreased or inadequate tension or reduced vocal capacity.
- (Hyper functional: Excess tension or forcing in larynx

- a) Laryngitis: Laryngitis is the inflammation of vocal folds. Voice is associated with lowered pitch and phonation breaks. Vocal quality is hoarseness of voice.
- b) Chronic Laryngitis: Laryngitis lasting longer than 10 days may be considered as chronic laryngitis. Causes may include traumatic laryngitis, allergies, singing excessively at damaging intensity levels, smoking etc.
- c) Vocal Polyps: Vocal Polyps are benign vocal fold lesions, frequently unilateral. It occurs at juncture of anterior and middle one-third of vocal folds, Vocal quality is hoarseness

- d) Vocal Nodules: It is the most common benign lesions in children and adults, typically bilateral. It occurs at juncture of anterior and middle one third of vocal folds, caused by continuous abuse/misuse of voice e.g. Screaming, coughing, singing in abusive manner. Voice quality is hoarseness of voice.
- e) Functional Dysphonia: It may be hyper functional or hypo functional. No medical or surgical treatment available. Speech language pathologists may work to improve intensity, pitch, and quality of voice. Psychological support may be beneficial
- f) Functional Aphony: It is a hyper functional voice disorder. Voice is typically whispered. Most causes are psychological
- g) Falsetto: High-pitched breathy voice, produced by vibration of anterior one-third of the vocal folds.

2.2. Organic Voice Disorders:

- a) Papillomas: They are soft wart-like growths and viral in origin. They occur mainly in children 4-6 years. Vocal quality is hoarseness of voice. Treatment is surgical removal.
- b) Contact Ulcers: Contact Ulcers are small ulcers at juncture of middle and posterior one third of folds. They can be caused by persistent and excessive slamming of arytenoids and hard glottal attacks, gastro esophageal reflux, intubation for surgery. Voice quality is hoarseness of voice. Voice therapy is usually successful.
- c) Traumas: Various traumas can compromise the airway and affect the larynx. Voice therapy will focus on helping clients achieve their most functional voice.
- d) Cancer: Requires surgical and medical treatment.

2.3. Neurological Voice Disorders:

- a) Hypo adduction: Hypo adduction is difficulty getting the vocal folds together.
- b) Hyper adduction: In this, vocal folds close too tightly or for too long.
- c) Spasmodic Dysphonia: Spasmodic dysphonia is strained, strained and harsh vocal quality. It affects females more than males. Age of onset is on average at 45 years of age. Treatment involves voice therapy and medical-surgical approach.

3. MANAGEMENT

Voice therapy will depend on age of client, type, and severity of disorder. It includes:

3.1. Hygienic Voice Therapy:

In this, focus on instilling healthy vocal behaviors in habitual speech patterns, determine misuse, become aware of these behaviors and eliminate damaging behaviors.

3.2. Symptomatic Voice Therapy:

Reduce/eliminate abuse and misuse of voice through facilitating techniques, auditory feedback, change of loudness, counseling etc.

3.3. Psychogenic Voice Therapy:

Identify and modify the emotional and psychosocial behavioral reasons that cause a voice disorder,

3.4. Physiological Voice Therapy:

Directly alter or modify the physiology of the vocal mechanism.

3.5 Eclectic/Holistic Voice Therapy:

Combination of any or all of the orientations and approaches of voice therapy.

4. CONCLUSION

Speech sound is produced by precisely coordinated muscle actions in the head, neck, chest, and abdomen. Speech development is a gradual process that requires years of practice.

During this process, a child learns how to regulate these muscles to produce understandable speech. The speech mechanism is more complicated than any instrument to be found in a symphony orchestra.

5. REFERENCES

- [1] Robert M. Kliegman, Richard E. Behrman, , Hal B. Jenson, and Bonita F. Stanton, (2004), Nelson Textbook of Pediatrics, 17th Edition Reprint, Saunders, An imprint of Elsevier
- [2] Arthur.C.Guyton & John E.Hall, (1998), Text book of Medical Physiology, 9th Edition, Harcourt Brace and Company, Asia Pvt. Ltd
- [3] Dhingra, P.L., (2004), Diseases of Ear, Nose and Throat, 3rd edition, ELSEVIER a division of Reed Elsevier India Private Limited

- [4] Tortora Gerard, J. & Garbowski Sandra R, (1996), Principles of Anatomy and Physiology, 8th Edition. John Wiley & Sons Publications
- [5] Chaurasia, B.D. (2002), Human Anatomy, Regional and Applied, 3rd Edition, Reprinted, New Delhi, CBS publishers and distributors
- [6] Dorothy V.M Bishop & Lawrence Leonard,(2014), Speech and Language Impairments in Children: Causes, Characteristics, Intervention and Outcome; Psychology Press publisher.
- [7] Jan Broomfield & Barbara Dodd, (2011), Is speech and language therapy effective for children with primary speech and language impairment ? Report of a randomized control trial, International Journal of Language & Communication Disorders Vol. 46