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Review Article

Understanding speech disorders for clinical practice

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ABSTRACT

Speech is the vocal utterance of language and it is considered disordered in three underlying ways: voice, articulation, and fluency, its disorder is to be studied from same pattern. The features that should be considered in determining a voice disorder are: Volume: how loudly or softly we speak, Pitch: how pleasant or unpleasant Quality: the highness or lowness of one's voice, Rate: the speed at which one speaks. Homeoapthic repertory shows these symptoms, but caution is mechanical problem should not consider as dynamic derangement.

1. Introduction

As a homoeopath one always intrude with every case as dynamic disorder even in our HMM & Repertory also, but this is not so in every case. There are certain patient we get in practice that they have some mechanical troubles which dynamic medicine will note take care other ancillary measure should also to be thought as foremost priority, Speech disorder is amongst one of it.

2. Review of Literature

Speech disorders are characterised by a difficulty in producing normal speech patterns. Children go through many stages of speech production while they are learning to communicate. What is normal in the speech of a child of one age may be a sign of a problem in an older child. Speech is the vocal utterance of language and it is considered disordered in three underlying ways: voice, articulation, and fluency.

These disorders include voice disorders (abnormalities in pitch, volume, vocal quality, resonance, or duration of sounds), speed sound disorders/articulation disorders (problems producing speech sounds), and fluency disorders (impairment in the normal rate or rhythm of speech, such as stuttering).

3. Voice Disorders

Voice involves the coordinated effects of the lungs, larynx, vocal chords, and nasal passage to produce recognisable sounds. Voice can thus be considered disordered if it is incorrectly phonated or if it is incorrectly resonated. In the incorrect phonation an individual could have a breathy, strained, husky, or hoarse voice. With the incorrect resonation an individual could have hyper-nasality or hypo-nasality. The voice disorders could also be due to improper voicing habits. Paralanguage issues, such as use of pitch, volume, and intonation, are diverse for they are culturally determined. Every sound of voice has a possible range of meanings that could be conveyed simply through the voice rather than the words we use. [1]

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The features that should be considered in determining a voice disorder are:

Volume: how loudly or softly we speak

Pitch: how pleasant or unpleasant

Quality: the highness or lowness of one's voice

Rate: the speed at which one speaks

Voice disorders are interpreted variously in different cultures. For instance, in many African cultures masculinity and femininity are determined by paralinguistic features. A man who speaks in a low volume, a high pitch, or a smooth and slowvoice, would be frowned upon and called upon to "speak like a man."

4. Speech Sound Disorders

These involve difficulty in producing specific speech sounds (most often certainconsonants, such as /s/ or /r/), and are subdivided into articulation disorders(also called phonetic disorders) and phonemic disorders. Articulation disordersare characterised by difficulty learning to physically produce sounds. Phonemic disorders are characterised by difficulty in learning the sound distinctions of a language, so that one sound may be used in place of many.However, it is not uncommon for a single person to have a mixed speech sound disorder with both phonemic and phonetic components.

4.1. Articulation disorders

Articulation involves the use of the tongue, lips, teeth and mouth to produce recognisable speech sounds. Articulation is disordered if sounds are added, omitted, substituted or distorted. Articulation disorders may be caused by factors such as structural abnormalities, for example, a cleft lip and/or palate, a tongue-tie, missing teeth, a heavy tongue, or a deformed mouth; faulty or incomplete learning of the sound system; or damage of the nervous system. Apart from affecting articulation, such conditions also affect the self-concept of the persons 1. For instance, Pinky Sonkar, an eight year-old girl from Mirzapur in Uttar Pradesh, (On her life the documentary Smile Pinky was made by American filmmaker Magan Mylan, which won Oscars for Best Documentary), had stopped smiling, even stopped going to school because she was ashamed of her cleft lip, a deformity 35,000 children are born with in India every year. Then in 2008, The Smile Train arrived in Pinky's village and a seemingly routine plastic surgery was offered free by doctors' abroad and her world was changed forever.[2]

4.2. Phonemic disorders

Are speech disorders in which individuals have trouble physically producing certain sounds? In the general population phonemic disorders are sometimes called speech impediments. Usually individuals with phonemic disorders have trouble distinguishing the sounds made by certain letters so that some letters, for example all "t"s or all "c"s, are always pronounced with an incorrect sound as a substitution. Phonemic disorders usually improve with speech therapy, though how much improvement may be made will depend upon each individual case.

5. Fluency Disorders

Fluency involves appropriate pauses and hesitations to keep speech sounds recognisable. Fluency is disordered if sounds are very rapid with extra sounds (cluttered), if sounds are repeated or blocked especially at the beginnings of words (stuttered), or if words are repeated.

Fluency disorders are more prevalent in children and they are due to a combination of familial, psychological, neurological, and motoric factors. The social nature of communication is affected when one has disfluent speech. Human beings are social and they spend much of their time together. They first learn how to communicate in a social set up — for instance, with parents, siblings, relations, or friends. Socialisation is adversely affected if one has a fluency speech disorder. A person with disfluency is often mishandled at home, in school, or in public place. Often the individual becomes withdrawn.

6. Apraxia of Speech

Apraxia of speech, also known as verbal apraxia or dyspraxia, is a speech disorder in which a person has trouble saying what he or she wants to say correctly and consistently. The severity of apraxia of speech can range from mild to severe. There are two main types of speech apraxia: acquired apraxia of speech and developmental apraxia of speech. Acquired apraxia of speech can affect a person at any age, although it most typically occurs in adults. It is caused by damage to the parts of the brain that are involved in speaking, and involves the loss or impairment of existing speech abilities. The disorder may result from a stroke, head injury, tumor, or other illness affecting the brain. Acquired apraxia of speech may occur together with muscle weakness affecting speech production (dysarthria) or language difficulties caused by damage to the nervous system (aphasia).Developmental apraxia of speech (DAS) occurs in children and is present from birth. It appears to affect more boys than girls. This speech disorder goes by several other names, including developmental verbal apraxia, developmental verbal dyspraxia, articulatory apraxia, and childhood apraxia of speech. DAS is different from what is known as a developmental delay of speech, in which a child follows the "typical" path of speech development but does so more slowly than normal. The causes of DAS are not yet known. Some scientists believe that DAS is a disorder related to a child's overall language development. Others believe it is a neurological disorder that affects the brain's ability to send the proper signals

to move the muscles involved in speech. However, brain imaging and other studies have not found evidence of specific brain lesions or differences in brain structure in children with DAS. Children with DAS often have family members who have a history of communication disorders or learning disabilities. This observation and recent research findings suggest that genetic factors may play a role in the disorder.[3]

People with either form of apraxia of speech may have difficulty putting sounds and syllables together in the correct order to form words. They also tend to make inconsistent mistakes when speaking. For example, they may say a difficult word correctly but then have trouble repeating it, or they may be able to say a particular sound one day and have trouble with the same sound the next day. They often appear to be groping for the right sound or word, and may try saying a word several times before they say it correctly. Another common characteristic of apraxia of speech is the incorrect use of "prosody" — that is, the varying rhythms, stresses, and inflections of speech that are used to help express meaning. The severity of both acquired and developmental apraxia of speech varies from person to person. It can range from so mild having trouble with very few speech sounds to the severe cases of being not able to communicate effectively.

7. Dysprosody

Dysprosody is the rarest neurological speech disorder. It is characterised by alterations in intensity, in the timing of utterance segments, and in rhythm, cadence, and intonation of words. The changes to the duration, the fundamental frequency, and the intensity of tonic and atonic syllables of the sentences spoken, deprive an individual's particular speech of its characteristics. The cause of dysprosody is usually associated with neurological pathologies such as brain vascular accidents, cranioencephalic traumatisms, and brain tumors.

8. Dysarthria

Dysarthria is a motor speech disorder. It is a weakness or paralysis of speech muscles caused by damage to the nerves and/or brain. The type and severity of dysarthria depend on which area of the nervous system is affected. Dysarthria is often caused by strokes, Parkinson's disease, Amyotrophic lateral sclerosis (ALS), head or neck injuries, surgical accident, or cerebral palsy. A person with dysarthria may experience any of the following symptoms, depending on the extent and location of damage to the nervous system: "slurred" speech, speaking softly or barely able to whisper, slow rate of speech, rapid rate of speech with a "mumbling" quality, limited tongue, lip, and jaw movement, abnormal intonation (rhythm) when speaking, changes in vocal quality ("nasal"speech or sounding "stuffy"), hoarseness, breathiness, drooling or poor control of saliva, chewing and swallowing difficulty etc. A speech-language pathologist (SLP) can evaluate a person with speech difficulties and determine the nature and severity of the problem. The SLP will look at movement of the lips, tongue, and face, as well as breath support for speech, voice quality, and more. Children with isolated speech disorders are often helped by articulation therapy, in which they practice repeating specific sounds, words, phrases, and sentences. For stuttering and other fluency disorders, a popular treatment method is fluency training, which develops coordination between speech and breathing, slows down the rate of speech, and develops the ability to prolong syllables. Delayed auditory feedback (DAF), in which stutterers hear an echo of their own speech sounds, has also been effective in treating stuttering.[4] When a speech problem is caused by serious or multiple disabilities, a neurodevelopmental approach, which inhibits certain reflexes to promote normal movement, is often preferred. Other techniques used in speech therapy include the motor-kinesthetic approach and biofeedback, which helps children know whether the sounds they are producing are faulty or correct. For children with severe communication disorders, speech pathologists can assist with alternate means of communication, such as manual signing and computer-synthesised speech.[5]

8.1. Material: Result of search by index in all repertories: [root: Speech]

This is from ISIS software, number indicates no. of medicine

1. Brain - Stroke, apoplexy - speech, impairment, causes
2. Chest - Weak, chest - speech, impeding
3. Diseases - Stroke, apoplexy - speech, impairment, causes
4. Diseases - Vaccinations, ailments, after - speech, loss of
5. Dreams - Speech, giving
6. Fevers - Yellow, fever - slow, difficult speech
7. Hearing - Deafness, general - speech, with loss of, from massive doses of quinine
8. Hearing - Reverberating, noises - speech, of one's
9. Larynx - Voice, general - hoarseness, voice - speech, preventing
10. Mind - Answers, general - monosyllable
11. Mind - Aphasia
12. Mind - Contradictory, intentions are, to actions - intentions are, to speech
13. Mind - Crying, weeping - speeches, when making
14. Mind - Mania, general - excitement in gesture or speech
15. Mind - Speech, general (see Talking / Mouth)
16. Mind - Speech, general - stammering, stuttering (see Mouth - Speech)

17. Mind - Talking, general - excessive, loquacity - makes speeches
18. Mind - Talking, general - excessive, loquacity - speeches, makes
19. Mind - Whispering, to herself (see Speech / Talking)
20. Mouth - Speech, general (see Mind - Speech)
21. Mouth - Speech, general - difficult - weakness, from - organs of speech
22. Nerves - Chorea, general - side, crosswise left arm and right leg - right - tongue affected, staccato speech
23. Nerves - Epilepsy, general - epilepsy, aura of - speech, unintelligible
24. Pregnancy - Childbirth, general - cervix, os - flabby, os open, no pains, bag of waters bulging, patient more and more drowsy, speech thickens
25. Pregnancy - Childbirth, general - speech, thick tongue, like one intoxicated
26. Pregnancy - Confinement, general, puerperal - convulsions - speech, loss of, or stammering
27. Pulse - Fast, pulse, elevated, exalted - speech, with confusion of, and disconnected answers
28. Throat - Lump, plug, sensation - speech, preventing
29. Throat - Speech (see Mouth)
30. Toxicity - Vaccinations, ailments, after - speech, loss of
31. Mind - Answering - whispering (see Speech - whispering)
32. Mind - Aphasia - comprehension of speech lost, but can speak oneself
33. Mind - Contradictory - speech; intentions are contradictory to
34. Mind - Desires - full of desires - vexatious things; desire to say (see Speech - vexatious)
35. Mind - Drunkenness; symptoms during - talking foolishly (see Speech - foolish - drunkenness)
36. Mind - Excitement - speech stammering with
37. Mind - FOOLISH behavior - talking foolishly (see Speech - foolish)
38. Mind - Forgetful - sentence; cannot finish (see Speech - finish)
39. Mind - Hurry - speech (see Speech - hasty)
40. Mind - Loquacity - speeches, makes
41. Mind - Love - disappointed love - talk; with incoherent (see Speech - incoherent - love)
42. Mind - Mania - excitement in gesture or speech
43. Mind - Repeating - sentence when speaking; the same (see Delirium - repeats / Speech - repeats) h
44. Mind - Speech
45. Mind - Speech - swallowing his words (see MOUTH - Speech - swallowing)
46. Mind - Stammering (see MOUTH - Speech - stammering)
47. Mind - Talking - foolishly (see Speech - foolish)
48. Mind - Talking - nonsense (see Speech - nonsensical)
49. Mind - Timidity - whispering - answering the prescriber directly; to the mother instead of (see Speech - whispering - answering)
50. Mind - Weeping - speeches, when making
51. Vertigo - Speech
52. Vertigo - Speech - irrational speech; with (see MIND - Speech - unintelligible - vertigo)
53. Head - Complaints of head - raving; with (see MIND - Speech - incoherent - head)
54. Head - Complaints of head - speech; with affected (see MIND - Speech - affected - head)
55. Head - Paralysis of brain - Medulla oblongata - accompanied by - speech; disordered
56. Eye - Open eyelids - wide open - delirious speech; with (see MIND - Speech - delirious - eyes)
57. Face - Paralysis - accompanied by - speech
58. Mouth - Aphthae - Tongue - accompanied by - speech; impeded (see Speech - difficult - accompanied - tongue - aphthae)
59. Mouth - Drawn - Tongue - backward - preventing speech
60. Mouth - Speech
61. Mouth - Speech - difficult - accompanied by - bulbar paralysis (see Head - Paralysis - medulla - accompanied - speech)
62. Mouth - Speech - difficult - accompanied by - face; paralysis of see Face - Paralysis - accompanied - speech - difficult)
63. Mouth - Speech - difficult - weakness; from - organs of speech
64. Mouth - Speech - wanting - accompanied by - convulsions; one-sided (see Generals - Convulsions - one - accompanied - speech)
65. Mouth - Stammering (see Speech - stammering)
66. Larynx and Trachea - Voice - hoarseness - speech, preventing
67. Chest - Weakness - speech, impeding
68. Dreams - Speech; making a
69. Dreams - Speech; making a - long speech; a
70. Generals - Apoplexy - accompanied by - speech disorder
71. Generals - Convulsions - one side - accompanied by - speech; wanting
72. Generals - Convulsions - epileptic - aura - speech, unintelligible
73. Dragos D., Mind - Intellect - communication of ideas - means of communication.

9. Conclusion

The study of various speech disorder convey that every disorder is not a dynamic in presentation though it is created by some of the morbific influences, but at patient disposal it is not to be medical problem every time as per the speech disorder is concern. This study enlarges our views

about the diffrenet possibility of other measure to help the patient in the best possible way apart form the Homeoapthic medication.

10. Conflict of Interest

None.

11. Source of Funding

None.

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