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Cluttering : A Case Report

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Abstract

This is a report of a case with cluttering. The features for differential diagnosis *and* ***the techniques used in this particular case are highlighted and their*** *usefulness with this case is discussed.*

Cluttering is a disorder of thought processes preparatory to speech and based on a hereditary disposition. (Liebman, 1900).

Cluttering is a speech disorder characterised by the clutterer's unawareness of his disorder, by a short attention span, by disturbances in perception, articulation and in formulation of speech often by excessive speed by delivery. According to Weiss (1964) cluttering is a verbal manifestation of central language inbalance which may affect all channels of communication (eg... reading, writing, rhythm and musicality). Often clutterers are not diagnosed in the clinic and hence they rarely report for therapy. Weiss (1964) lists 20 symptoms of cluttering. Majority of symptoms of cluttering are facultative i.e. often present but not necessarily so, only a few arc obligatory i.e.. symptoms which are always manifested. (These are marked by asteriks *).

*a) **Repetition** : Repetition of one syllabic, word or first syllables of poly - syllabic word at the same speed as his non - repetitive speech.

b) Excessive speed **(Tachylalia)**: This speed is accompanied by poor formulation and delivery and is therefore an indicator that his speech mechanism cannot cope with its function of communication. Inlcrvcrbal and intraverbal acceleration is found with fcstinalion. This is a facultative symptom.

c) **Drawlings** and Interjections : Prolongation of final consonants and stallers to provide lime to find the necessary words to express his ideas.

* d) Vowel stops: Consists of a stop before pronouncialion of initial vowel wilh

the mouth open as if frightened.

* **e**) **Articulation and Motor Disabilities** :

i) Omissions of sound syllables/ whole words (ellipses)

ii) Displacement of sounds (Heterotrophy)

iii) Inversion of the order of sounds (Metatheses)

iv) Anticipation of sounds

V) Repetition of initial sounds

vii) Telescoping of several syllables of a word

f) Respiratory dysrythmia

g) Monotone or uniformly repeated short melodic pattern.

h) Lack of rhythm and musical abilities,

i) Poor concentration and short attention span.

j) Poorly integrated thought process :

i) Thinking too quickly (Unorganised)

ii) Thinking too slowly (thinking)

k) Lack of formulation.

1) Reading disorders,

m) Writing disorders,

n) Grammatical difficulties.

* o) Unawareness of symptom.

p) Delayed speech and hyperactivity.

q) Delayed speech development.

* r) Heredity is positive.

s) Extract & Neuroticism scores are high in psychological evaluation.

In this report, a case of cluttering has been included to :

i) highlight the importance of dif-- ferential diagnosis and hence differential therapy and

ii) review some of the therapy techniques used specifically with clutlerers.

The case (henceforth X), a law student aged 24 years reported to the clinic with a complaint of stuttering since childhood. History of the case revealed that his mother had a similar problem . X's parents shared a consanguinous marriage. He reported that the problem developed gradually. Situational variations were also reported. The problem increased while speaking to a group but no variations were reported with respect of individuals.

On speech analysis, i t was observed that the case's speech mechanism were structurally and functionally normal. In a two minute speech sample, number of repetitions of syllables in initial position were 72 and rate of speech was 374 syllables / minutes which was fast.

In reading, prolongations and hesitations were observed. However, no repetitions were noticed. Frequent interjections were noticed and lisping was present along with moving of the tongue involuntarily within the mouth during pauses. Intelligibility was severely affected as speech was fast. Of the 20 symptoms suggested by Weiss (1964) a few were evaluated. Also,

tests to evaluate the functions of different systems were performed.

Table - 1 i Results of Various Tests

I.	Tests for Laryngeal function :	
	1. . Frequency :	
	Fundamental frequency for vowel	a = 163 Hz
		i = 172 Hz
		u = 170 Hz
	Optimum frequency	122.6 Hz
	Reading Range (Normal)	= 140 -371 Hz
	Speaking Range (Normal)	= 143-299 Hz
	Frequency Range (Normal)	= 164 Hz-520 11/.
	2. Intensity 42 1)DB R	
	3. Phonation duration (Normal):	= / a / = 20, 18
	(in sees.)	= /i/=15,16
		= /u / = 15, 17
	Sustained duration	= /s/=8,8
	(in sees.).	= /z/ = 9,9
	4. I.aryngeal Waveform was found to be normal :	
	- with normal shimmer and jitter	
	- number of harmonics clearly visible were 22	
	which was slightly reduced than normal	
	- II / N ratio = 44 (normal)	
II.	Tests for respiratory function :	
	Vital capacity	= 2,700 cc - Normal
	Mean Airflow rate	128 cc /sec Normal
III.	Tests for articulalory function :	
	Screening Kannada articulation test was administered ami no articulation errors were noticed m isolation or word level.	

In story telling and spontaneous speech, X substituted e / 1. Repetition ol syllables and lisping was also noticed during speaking. Reading sample also revealed articulation errors. Rate of speech was fast with repetition of initial syllables of words Intelligibility was severely affected while speaking fast. Pauses were absent during fast rate of speech.

Following informal testing pertaining to cluttering was also administered. On auditory discrimination test his score was 100 % but story telling was poor. Serial subtraction ability was good. He exhibited a good writing sample. He exhibited omission of words and word reversals while speaking.

While ENT evaluation revealed normal function & structure of Ear, Nose & Throat, psychological evaluation revealed high scores on Neuroticism "N" in the EPI. ' With the features for differential diagnosis (Table - 2) the case X was diagnosed as cluttering with misarliculations and high pitched voice.

Table - 2 : Features Tor Differential Diagnosis of Stuttering, Cluttering and Case 'X'

Characteristics	Stuttering	Cluttering	Case X
Interpretation	Functional Secondary	Hereditary Primarily Central Language Imbalance	Hereditary Moiher has the same problem
Underlying disturbance	Neu rovegctati vc dysfunction	Mostly absent	Absent
Awareness	Strong	Absent	Initially absent
Speech characteristics specific symptoms	Clonic / Tonic with inhibition	Hesitations & Repetition	Repetitions Hesitations
Kate of Delivery	Rathcr slow	Mostly fast	Fast rate
Sentence Structure	Mostly correct	Often incorrect	Syntactically correct but with interjections.
Fear of 'Specific sound	Present	Absent	Abseni
Heightened Attention	Worse	Heller	Better
Relaxed Attention	Better	Worse	Worse
Reading Aloud	Belter	Worse	Worse
Well Known Text	Belter	Worse	Worse
Unknown Text	Worse	Heller	Better
Foreign Language	Compressed high pressure strokes	Loose disorderly	
School Performance	Good to Superior	, Under achiever	Average
Air Flow	Interrupted	Jerky	Normal
Vocal Tension	Present	Abseni	Absent
Prolongation	1/100 wds	Abseni	Absent
Inflections	Restricted Monotone	Repealed Monotone '	Was Present
Under DAF	Reduced	Cireater	Ex ager rated
Course	Fluctuating Spontaneous Improvements relapses	Spontaneous Recovery Abseni	
Therapy	Attention should be diverted from details along wilh psychotherapy.	Concentration on on details	Concentration on details
Prognosis	Depends *on* emotional adjustments	Depends on acquisition ol concentration.	Good as the case is aware and motivated.

Management : The case attended 15 therapy sessions of 45 minutes each. Initially, goals of the therapy were to reduce the fast rate of speech and to reduce the articulation errors in speech to make speech more fluent and Intelligible. For this, some information on the techniques used with this case, are provided.

The following differential techniques were used : -

i) Slit reading method for syllabisation.
ii) Pictorial phonetic scrip method.

Slit Reading Method

This implied reading through a paper shield in which was a slit of a single syllable size. As the patient moves the paper slowly across the syllable he sees one syllable at a time and is forced to concentrate his attention on it. His delivery of speech is thus decisively slowed.

In this activity, the case's initial tendency to slide the paper over the lines should be discouraged. And following lines of text should be covered to avoid advance scanning and the final consonant should be underlined red as they are apt to be slurred As the case had to concentrate only on one syllable at a time, his articulation tends to be precise and the articulatory errors like in version and metathesis tend to disappear.

Pictorial Phonetic Script

Frocschel (1946) was of the opinion that in Clutterers, the intermediate phase "formulating" which should occurbetween "thinking" and "speech" was affected. Since "Speech" phase is more accessible to the speech therapist than would be the thought phase, devices are adviced which help the patient to control the accuracy and therefore the tempo of his articulation.

Frocschel used "A pictorial phonetic script" as one of these devices which consisted of a series of alphabetical drawings, based on most characteristics anatomical position of the articulalory organs during the pronounciationof various sounds.

The patient should be asked to transcribe reading passages and later spontaneous speech, into the phonetic alphabet at frequent intervals which helps in improving the kinesthetic imagery which was found to be poor in clutterers. Because of its naturalness and simplicity the case considers it as a game and uses it with corresponding enthusiasm.

The Frocschel's system is clear, simple and calls the patient's attention to the many details of articulation. Thus, it improves articulation, helps to reduce rate of speech, improves attention and concentration on single letter and helps "formulating" before speech.

This system was modified to suit Kannada which is primarily syllabic. The case was provided with pictorial phonetic alphabet for consonants and vowels were omitted.

After 15 sessions, his rate of speech was reduced to 240 syl / sec and intelligibility improved considerably. No articulation errors or repetitions were noticed in reading. However, occasional misarticulation and repetition persisted in speech, whenever the case's rate of speech increased. Attempt was also made to lower his pitch but the case failed to do so. The case was discharged and was adviced to follow the techniques for the next few months.

Conclusions

It would be important to differentially diagnose cluttering and stuttering, wherein cluttering needs a differential therapy approach. While the rate control methods like prolongation fail, slit reading would be of more use. However, Froeschel's phonetic script may be difficult to be understood by an uneducated clutterer, but this technique may be used with specific cases to reduce articulatory errors.

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