LANGUAGE IMPAIRMENT AND ITS EFFECT ON CHILDREN'S SOCIAL AND ACADEMIC PERFOMANCE

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ABSTRACT
Children with specific language impairment (SLI) are usually as able and healthy as other children in many ways but with one exception, that they have enormous difficulty talking and understanding language. In some children, the impairment may be severe and persistent difficulties in both understanding and talking experience. In the light of the above, the present paper has examined language as related to the brain and language impairment in children, identifying its causes along with recommendations to help tackle the difficulty.

1. INTRODUCTION

Language development occurs in all human beings, among children and adults with normal brain function regardless of race, culture or general intelligence. It is a capacity of the human species as a whole. All human languages can be analyzed as systems consisting of discrete structural units with rules for combining those units in various ways (Akmajian, Etal, 2003). That is to say, even though languages differ superficially, they all reflect general properties of a common linguistic system typical of the human species.

Philosophers, psychologists and linguists commonly make the point that, it is the possession of language which most clearly distinguishes man from other animals.
According to Sapir (1921:8) cited in Lyons (2009) "Language is purely human and non-instinctive method of communicating ideas, emotions and desires by means of voluntary produced symbols".

Hall, (1968:158) also cited in Lyons, is of the opinion that "language is the institution whereby humans communicate and interact with each other by means of habitually -used oral-auditory arbitrary symbols". Among the points to notice in these two definitions is that human beings only have the capacity to use language in both communication and interaction. Both definitions have also taken the view that languages are systems of symbols designed as it were for the purpose of communication. It can be viewed here that any abnormalities in speech production by individuals may be traced to language/speech disorder.

The Individuals with Disabilities Education Act (I D E A) officials see speech and language impairment or disorder as "a communication disorder such as stuttering, impaired articulation, language impairment or a voice impairment that adversely affects a child's educational performance". Each point within this official definition represents a speech and language subcategory. A communication disorder such as stuttering provides an example of a fluency disorder; other fluency issues include unusual word repetition and hesitant speech "impaired articulation" indicates impairment in which a child experiences challenges in pronouncing specific sounds "a language impairment" can entail difficulty comprehending words properly, expressing one self and listening to others. Finally, "voice impairment" involves difficulty voicing words for instance throat problem may cause an abnormally soft voice.

Speech and language impairments tend to emerge at a young age and the earlier a child is diagnosed and receives services accordingly, the more likely that the child can outgrow the disability. The obstacles by speech and language impairments vary by the specific case, but because communication is at the core of education, these impairments can impact a student's entire educational experience. These challenges might involve: communicating effectively with classmates and teachers understanding and or giving oral presentations, participating in classroom discussions, as well as attaining normalcy within a group.

2. LANGUAGE AS RELATED TO THE BRAIN

It is obvious that the brain plays the most significant role in the operations that is normally referred to as mental. The human brain is so wide and complex that people rarely understand the various functions or performances of the brain in the whole body.

The cerebrum of the brain is divided into two halves or hemispheres, linked in normal circumstances by the "corpus callosum". The out layer of both hemispheres consists of grey matter "the cortex" containing nerve cells; the right hemispheres control the right side of the body (Akimajian, Etal, 2003). Brain damage or blood clotting in one hemisphere may be accompanied by paralysis of the limbs on the opposite side of the body. It is as well believed that the signal that are received on one side

of the body, either tactile, auditory or visual must go first to the appropriate hemisphere before they are passed for processing to the other hemisphere along the corpus callosum Akmajia, etal, (2003). This complexity of the brain function leads to many debate by scholars over the centuries as to what part is speech and language located within the brain.

In 1860's, as cited in Akimajia, etal, (2003), scientists known as localizationists speculated that the functioning of specific regions in the brain was responsible for language. Another French surgeon and anatomist "Pan/ Broca" described to the Societe d' Anthropologies in Paris, a patient who in life had had extreme difficulty in producing speech. Later, at autopsy, the patient was found to have damage in the posterior part of the 'frontal lobe' in the left cerebral hemisphere now known as Broca's area (the motor speech area). This became the first substantial claim that damage to a specific area of the brain results in a speech deficit (Akimajia, etal, 2003).

Broca further extended his claim about speech localization by reporting that, damage to sites in the left cerebral hemisphere produced aphasia. Whereas destruction of corresponding sites in the right hemisphere left linguistic capacities intact. A young physician, (Carl Wernicke, 1874) cited in the same book also in his work, strengthened Broca's claim that left hemispheric structures are essential for speech in the hypothesis that different areas within the left hemisphere fulfill different linguistic functions.

In support of language relationships with the brain, it was further believed for over one hundred years that, there is a special relationship between language and the left hemisphere especially for those who are right handed and for most, but not all left handers such that, generally, one can conclude that language is controlled by the left hemisphere. This process whereby one hemisphere of the brain is specialized for the performance of certain functions is known as "lateralization" (Lyons, 2009).

It was further believed that the process of lateralization is maturational in the sense that, it is genetically preprogrammed, but takes time to develop. Many maturational processes of this kind emerge in the biological development of all species, but lateralization appears to be more specific to human beings alone. This process is generally believed to begin when the child is about two years old and to be complete at some time between the age of five and the onset of puberty. It is a also widely held view that lateralization is a pre-condition (both phyto-genetically and ontogenetically) of the acquisition of language (Lyons, 2009). In support of the above assertion, one may note that, language acquisition begins at about the same time as lateralization does and is normally complete as far as the essentials are concerned, by the time that the process of lateralization comes to an end.

This is to say that, many scientist scholars have agreed that specific neuro-anatomic structures generally at the left hemisphere of the brain are vital for speech and language. It was also generally agreed that, for most individuals, the left cerebral hemispheres is dominant for language, regardless of handedness. As such any major damages to the left hemisphere in human beings will result to some types of aphasia compared to the damages in the right hemispheric lesions. In what follow, we shall examine what language impairment entails.

3. WHAT IS LANGUAGE DISORDER /IMPAIRMENT?

A language disorder is an impairment that makes it hard for someone to find the right words and form clear sentences when speaking. It can also make it difficult to understand what another person says. A child may have difficulty understanding what others say, may struggle to put thoughts into words. One may notice that a child's vocabulary is very basic and his sentences are short, ungrammatical and incomplete. While his peers chat and tell jokes, the child may have trouble following the conversation and miss the jokes. He also may speak in two-word sentences and have trouble answering even simple questions. It's important to note that a language disorder is not the same as a hearing issues or speech disorder. (Erven and Margret 2001)

Children with language disorder typically have no trouble hearing or pronouncing words. There challenge is mastering and applying the rules of language, like grammar. They aren't simply "late talkers". Without treatment, their communication problems will continue and may lead to emotional issues and academic struggles.

According to "encyclopedia of mental disorders" language disorder can either be acquired or developmental. An acquired language disorder like aphasia shows up only after the person has had a neurological illness or injury. This could be a stroke or traumatic head injury. A developmental language disorder is much more common in children. A kid with developmental language disorder often starts speaking later than their peers. This delay isn't related to their intelligence level. In fact, kids with developmental language disorder typically have average or above – average intelligence. They usually have problems with receptive and expressive language skills before the age of four. As many as 5% of school age children are believed to have language disorder, this makes language

disorder some of the more common childhood disorder (U.S Department of Education: 2007) .Of the 6.1 million children with disabilities who received special education under IDEA in public schools in the 2005- 2006 school year, more than 1.1 million were served under the category of speech or language impairment.

4. TYPES OF LANGUAGE IMPAIRMENT IN CHILDREN

There are three main types of language impairment:

- Receptive Language Issues: Involve difficulty understanding what others are saying.
- Expressive Language issues: Involve difficulty expressing thoughts and ideas.
- Mixed Receptive–Expressive Language issues: Involve difficulty understanding and using spoken language.

4.1 These can further be explained as follow:

A.D.D Related Language/Listening Disorders:

Studies show that children with ADD are at risk for articulation disorders, which affect their ability to produce letter sounds appropriate for their age. Beyond that they also commonly have differences in fluency and vocal quality when speaking. Compared to peers with learning disabilities alone children with ADD showed increased volume and variability in pitch when talking, along with particular patterns. Such as increased number of vocal pauses

1. Articulation/Phonological Delay

An articulation disorder involves problem in making sounds. Sounds can be substituted, left off, added or changed. These errors may make it hard for people to understand one with this problem. Children will make the sound "w" for an "r" especially in word like "rabbit" will be pronounced as "wabbit" or leave sounds out of words such as "nana" for "banana". When these sounds persisted in children more than the expected age, it then becomes a problem. Phonological process disorder involves patterns of sound errors. Such as substituting all sounds made in the back of the mouth like "k" "g" for those in the front of the mouth like "t" and "d"for instance; saying "tup" for "cup" or "das" for "gas". Others may be combination of consonants such as "band" for "brand" "pesent" for "present" or "poon" for "spoon". It may be difficult for the listener to understand the actual word the child wants to say.

This is most common in children learning speech to leave one of the sounds out of a word. This may be corrected as the child grows up. But if it continues, the child may be said to have developed a phonological disorder.

Point to notice about Articulation/ Phonological Delay (APD)

- APD is an auditory disorder that is not the result of higher order, more global deficit such as autism, mental retardation attention deficits of similar impairments
- Not all learning, language and communication deficits are due to APD.
- No matter how many symptoms of APD a child has only careful and accurate diagnosis can determine if APD is indeed, present.
- Although, a multidisciplinary team approach is important in fully understanding the cluster of problems associated with APD, the diagnosis of APD can only be made by an audiologist.
- Treatment of APD is highly individualized. There is no one treatment approach that is appropriate for all children with APD.

2. Autism/ Pervasive Developmental Disorders:

Although, psychologists and psychiatrists sometimes use the term "pervasive developmental disorders" and "autism spectrum disorders" (ASD) interchangeably, as such, PDD-NOS became the diagnosis applied to children or adults who are of the autism spectrum but do not fully meet the criteria for another ASD such as autistic disorder (Asperger syndrome).

Like all forms of autism, PDD-NOS can occur in conjunction with a wide spectrum of intellectual ability. Its defining features are significant challenges in social and language development.

Some developmental health professionals refer to PDD-NOS as "sub-threshold autism". In other words, it is the diagnosis they use for someone who has some but all characteristics of autism or who has relatively mild symptoms. For instance, a person may have significant autism symptoms in one core area such as social deficits but mild or no symptoms in another core area such as restricted, repetitive behaviors.

More helpful perhaps, are studies suggesting that persons with PDD-NOS can be placed in one of three very different sub-groups:

- A high functioning group (around 25 percent whose symptoms largely overlap with that of "Asperger syndrome" but who differ in terms of having a lag in language development mild cognitive impairment (Asperger syndrome does not generally involve speech delay or cognitive impairment).

- A second group (around 25 percent) whose symptoms more closely resemble those of 'autistic disorder,' but do not fully meet all its diagnostic signs and symptoms.

A third group (50 percent) who meet all the diagnostic criteria for autistic disorder but whose stereotypical and repetitive behaviors are noticeably mild. As these findings suggest, individuals with PDD-NOS vary widely in their strengths and challenges.

Developmental Pervasive Disorder: Autism is a developmental disability. Children with autism, also known as autism spectrum disorder or ASD, have social, communication and language problems. They also have restricted and repetitive patterns of behavior, interests or activities, such as flipping objects, echolalia or excessive smelling or touching of objects. Autism may be mild or severe. All children with autism do not have the exact same problems. Children with autism may have the following social, communication skills and common behaviors:

Social skills: A child may have problems using social skills to connect with other people. It may be hard for him to share a common focus with another person about the same object or event known as joint attention; play with others and share toys. Communication skills: A child may have problems in understanding or talking with others, reading or writing. He may also have problems in understanding and using gestures like pointing, waving or showing objects to others etc. (Hebert & Kenet 2007). Common behaviors: A child may have trouble changing from one activity to the next; flap hands, rock, spin or stare; get upset by certain sounds; like only few foods etc.

Dysarthria: Dysarthria is a motor speech disorder. The muscles of the mouth, face and respiratory system may become weak, move slowly or not move at all after a stroke or other brain injury. The type and severity of dysarthria depend on which area of the nervous system is affected. Some causes of dysarthria include stroke, head injury, cerebral palsy, and muscular dystrophy. Dysarthria may occur on both children and adults. A person with dysarthria may experience 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; as well as chewing and swallowing difficulty (Hebert & Kenet 2007).

Expressive Language Disorder: This is a communication disorder in which there are difficulties with verbal and written expression. It is a specific language impairment characterized by an ability to use expressive spoken language that is markedly below the appropriate level for the mental age, but with a language comprehension that is within mormal limits. There can be problems with vocabulary, producing complex sentences and remembering words and there may or may not be abnormalities in speech articulation.

Language Disorders: Language disorders or language impairments are disorders that involve the processing of linguistic information. Problems that may be experienced can be those of grammar (syntax and morphology, semantic or other aspects of language. These problems may be receptive (involving impaired language comprehension), expressive (involving language production), or a combination of both. Examples include specific language impairment and aphasia, among others. Language disorders can affect both spoken and written language and can also affect sign language; typically all forms of language will be impaired. Language disorders are different from speech disorder which includes difficulty with the act of speech production but not with language. Other types of speech or language impairments may include; fluency, apraxia, aphasia and many others (Robin 1991)

5. CAUSES OF LANGUAGE DISORDER

Experts aren't sure what causes language disorder. Most of the research has focused on the broader category of the speech and language impairment (SLI), which includes language disorders and speech disorders. That research has been extensive and suggests some possible causes for SLI, such as:

5.1 Genes and Heredity: Research has found that 20 to 40 percent of children with a family history of speech and language have the condition themselves, compared with 4 percent of those no family history (Choudhury, Naseem and Benasich, 2003). It is generally accepted that SLI is a strongly genetic disorder. According to Bishop (2006) the best evidence comes from studies of twins. Two twins growing up together are exposed to the same home environment, yet may differ radically in their language ability.

5.2 Prenatal Nutrition: Some research has shown that when a woman takes prenatal folic acid supplements during pregnancy, her baby is less likely to have severe language issues.

5.3 Associated Factors: Males are more affected by SLI than female. In clinical samples, the sex ratio of affected male; females is around 3 or 4 (Robinson (1991). The reason for this association is not known: no linkage has been found to genes on the sex chromosome. Poor motor skills are commonly found in children with SLI. According to Hill El (2011) Brain Scans do not usually reveal any obvious abnormalities in children with SLI, although quantitative comparison have found differences in brain size or relative proportions of white grey matter in specific regions. Up to date, no consistent neutral sign' for SLI has been found. But differences in brains of children with SLI and typically developing children are subtle and may overlap with typical patterns seen in other neurodevelopmental disorder. (Herbert, Kenet, 2007) and Bishop, (2010)).

5.4 Other Conditions: Autism spectrum disorder, Down syndrome, intellectual disabilities and premature birth might also cause language disorder.

Identification of Language Disorder in Children, Problems with oral communication are the most common sign of language disorder. It's not clear if there are signs in infancy that might point to an increased risk (NIH, NIDCD 2011) the National Institute on Deafness and Child Development (NIDCD) is currently funding a study that will track babies for specific language impairment and autism spectrum disorder until age 3. Kids with receptive language issues may have trouble understanding what other people say. They could also have difficulty following simple directions and organizing information they hear. Receptive language issues can be hard to spot in every young child.

Expressive language issues can be easier to identify early. This is because kids with expressive language issues may be late to start talking and not speaking until age 2. At 3, they may be talking but hard to understand, and the problems persist into preschool. Some Skids, for instance, might understand the stories read to them but not able to describe them even in a simple way. Following are some signs of expressive language issues:

- Uses a limited variety of sentence structures when speaking
- Is able to pronounce words and sounds, but sentences often don't make sense.
- Uses certain phrases over and over again when speaking
- Has a limited vocabulary compared to other children of same age.
- Has difficulty in learning new words.

6. SKILLS AFFECTED BY LANGUAGE DISORDER IN CHILDREN

Language disorders can affect children in different ways, both academically and socially.

Socially: understanding what others are saying and expressing themselves through words help children from relationships. When kids can't communicate clearly, they may struggle to make friends and be part of a social group. Such children with language disorder prefer to play and stay alone and become afraid and shy to communicate with others (Spiliotopoulou and Vasiliki (2009)). They might also become the target of bullies.

Academically: Some kids struggle with academic issues such as reading and writing because of their limited vocabulary and poor grasp of grammar. Reading issues, dyslexia is common among kids with mixed receptive-expressive language issues. A growing number of studies have found that many children at risk for dyslexia also have difficulties with spoken language.

7. CONCLUSION

In conclusion, this paper has to some extent discussed language impairment/disorder in children as the case may be. We believe that language impairment may be diagnosed when a child's language does not develop normally as it is supposed to be and the difficulties cannot be accounted for, by generally slow development, physical abnormality of the speech apparatus, autism spectrum disorder, acquired brain damage or hearing loss and many others. A language impaired child, has no problems hearing or pronouncing words. Their trouble or challenge is mastering and applying rules of language like grammar. The parents are often the first to notice their children's disabilities in communication. Early identification of language disorder in children can be given adequate intervention while, late discovery may lead to permanent impairment to adulthood.

8. RECOMMENDATIONS

- A speech therapist can work on a child with language disorder, build his vocabulary and improve his/her grammar. The therapist will also show the parent how to work with the child at home.
- If a child has emotional difficulties as a result of language disorder, one might want to consider psychological help.
- When the child answers a question with a one-word sentence, the teacher responds by modeling back with a full, correct sentence, so that the child hears the word in correct order.
- Don't ask a child with difficulty an open ended questions, the teacher can ask either or questions, so the child has to choose the correct one.
- Teacher should tell students in advance that they will be called on. This will enable children to plan and compose their thoughts.
- Parents should always communicate with children during childhood.
- Discuss the book's picture, and let your child make up a new ending or act out the story with puppet. Read to your child and encourage nursery rhymes.

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