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**EXPLORING NEUROLOGICAL PATHOLOGIES OF LANGUAGE AND  
THEIR EFFECTS ON THE LIVES OF CHILDREN EDUCATION**

**Mr. Muhammad Ramzan<sup>1\*</sup>, Mrs Nargis Rasheed<sup>2</sup>, Miss Habiba Nawaz<sup>3</sup>, Mr. Wajid Hussain<sup>4</sup>**

<sup>1</sup>M.Phil English Linguistics Lahore Leads University Lahore Pakistan.

<sup>2</sup>M.Phil English Linguistics National College of Business Administration NCBA Lahore.

<sup>3</sup>M.Phil English Linguistics National College of Business Administration NCBA Lahore.

<sup>4</sup>MS English Linguistics Lahore Leads University Lahore.

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**Abstract**

This study aims at exploring the language pathologies neurologically in urban areas of district Multan (Southern Punjab) Pakistan and their effects on the lives of children's early education outcome. The study will not only probe the causes of language pathologies but will also discuss the occurrences of these disabilities. The focal point of this research is to diagnose the problems and suggest remedies for it. It has been observed in pluralistic culture of Pakistan that most of the children can develop the speech and language skills effortlessly in standard time of their age but some of them become handicapped and weak to enhance their language skills due to various problems e.g. congenital, environmental, social, inherent and organic so ultimately, they have to adopt various strategies in curing these illnesses -like speech therapy, medicated therapy, literary management, audio practicing and marvelous academic management. So, it is strongly felt to explore the basic markers which are responsible for these issues, develop various resources to

maximize it, generate necessary treatment and finally enable children to speak in language learning effectively. This research takes its roots under the paradigm of quasi experimental approach. This research comprises observation and analysis of children's family history, environmental exposure, birth labor procedure and process, post labor neo-natal management and children's early responses. After that children will be placed in two equal groups, for medicated management and simultaneously oral speech therapy giving to one group named as controlled group and second group namely as uncontrolled group leaving them at the mercy of circumstances and society. The paper finally attempts to determine the neurological problems leading to language disorders.

## **1 Introduction;**

Language is a peculiar human mental capability and it is an excess for humanity to perceive and think, to generate and determine thoughts and finally to communicate effectively to share ideas. It is system which exists in human mind with the partnership of various helping hands to generate a function in determining its culmination and enriches humanity with speech. If there is some restriction in the generation of this mental entity finally the presentation will direct towards speech or language pathology. Thinking that the language pathologies are embarrassing the lives of new born kids who not only suffer in day to day daily life but their impairments are stumbling block for their comfortable entrance in educational, professional and social system. This research explores the deferment causes in processing of language in brain more specifically when certain areas of brain are damaged or various organs have become dysfunctional for certain reasons. Language disorders in children occur due to various reasons e.g. family history, internal family repeated marriages (especially first cousin marriage) ,hearing loss ,premature birth, handicapped in brain(Boca's and Werrickes areas),muscular problems and articulators impairments and these diseases ultimately are agents of difficulties in communication, social interaction, earnings, social needs and academic achievements. It has been estimated that over 5% of children suffer from some kind of language disorders (Fabbro, 1999).The speech and language problems are one of the common cases among all pre-school problems and many children and parents have to undergo uncertainty associated with process of acquiring speech and language. The language disorders in children are being discussed considerably over last fifteen years and also are being subsumed in various medical and academic disciplines. Indeed this topic is considered guidelines for those individuals who are interested in neurology, audiology, aphasia, pediatrics, psychiatry, phonetics, education, occupational therapy, physical therapy, psychology and, finally, speech pathology in the US and speech and language therapy in the UK because these fields have ultimately correlated directly or indirectly with neurological linguistics pathologies.

## **2. Literature Review**

A lot of research has been carried out in exploring the language pathologies neurologically and their effects on the lives of children in early education outcome during last two decades in Europe and America. The various approaches have been adopted by the researchers to highlight basic markers which are responsible for this issue, some successful attempts have been made in many different areas of world but in Pakistan there is not any specific work by any linguist in this area. Indeed this is the problem not having very old history of exploration but it has been diagnosed for about last 15 years. Now days in the current advanced age, the requirements have been felt to dig out various causes which are responsible for this abnormality. However following works are worth taking note of it. It is worked by various linguistics and experts to

diagnose the problems which are responsible in the outcome of language pathologies and accordingly following literature is enough to sort out gaps as well as guidelines. Pre-school with language disorder in 1994 was published by Aram D.M. in journal of speech and hearing research to highlight congenital problems in language pathologies. The Early Identification of Language Impairment in Children (JAMES LAW) is indicating handicapped children and their treatment. An Introduction to Spoken Language Processing and its Disorders (John C. L. Ingram) are indicating the dysfunctional way of various organs. Language Development and Aphasia in Children (Emil Fröscheis) is guideline for the loss of ability to understand and produce speech due to the damage of brain. In the light of above mentioned view of the past literature, it has become clear that language pathologies are existing but there is need to find out the causes regarding family history, maturation in pregnancy, labor process and procedure, post neo-natal care level, brain development, mother feeding, nursing, environmental exposure of language, and audio logical status. Simultaneously steps should also be taken to minimize these causes. It is also necessary to promote some strategies for the proper management of these problems so that the individuals who are suffering from these problems may spend their lives in a healthy way. The work done by researchers exposes that none of these studies investigated about the educational out come and hindrances which children face in speech pathologies. An Australian preschool kid's society claimed that 51.4% children speech sound disorder developed because they were handicapped by the target services of specialists (McLeod, Harrison, McAllister & McCormack, 2013). Sweeting and West (2001) argue that not only frustration is always experienced by the children due to speech language disorder but also they are victimized by the harassment.

### **3. Statement of the problem**

In Pakistan it is a big concern of pediatricians, speech therapists, language pathologists, neurologists, special education teachers, audiologists and to some extent linguists to minimize the causes and effects of language pathologies but in spite of their best efforts it is increasing day by day. This study attempts to figure out and analyze the background of present problem and formularize the most effective intervention to for the solution of problem. It recommends adopting the ways of effectiveness in order to gain knowledge of language pathologies and take steps to restrict the barriers which are hindrance in learning and identifying the ways and means to overcome. It classifies present stage and suggests various varieties and methods for the different handicapped people.

### **4 Significance of the Study:**

Although it has been the big concerns of the various professionals but language pathologies have been explored very rare in the linguistic domain so it will not only a new research in Pakistan but also will give new dimensions to linguistics researchers. There is a big concern of pediatricians, speech therapists, language pathologists, neurologists, special education teachers, audiologists and to some extent linguists to minimize the causes and effects of language pathologies but in spite of their best efforts it is increasing day by day in Pakistan .This study attempts to figure out and analyze the background of present problem and formularize the most effective intervention to end it. It recommends adopting the ways of effectiveness in order to gain knowledge of language pathologies and take steps to restrict the barriers which are hindrance in learning and identifying the ways and means to overcome. It classifies present stage and suggests various varieties and methods for the different handicapped people.

## **5. Methodologies and Approaches**

### **5.1 Research Setting and Participants**

This study was undertaken in Al-Noor Special Education Public School in the urban areas of Multan District Multan Province Punjab Pakistan. The research area was between Nadir Abad and Mumtaz Abad including all registered population. The participants included in research study were first grade and nursery students to find out their pathologies related to the neurological factors that hindered them to achieve language proficiency and competency. Their behavior attitude affected by their diseases was also analyzed.

### **5.2 The Instrument**

The researchers used two instruments for data collection.

#### **A: Observation**

#### **B: Analysis**

Observations were made in the light of their family history, fetus journey, birth labor procedure and process, post labor neo-natal management, children's early responses, environmental exposure, children complete medical history and vaccination record and analysis was made in the light of observations. Further it was also observed and analyzed that what was the degree and standard of illness in children and how it had occurred and affected their efficiency. Finally it was also observed and analyzed what was the intellectual level of speech handicapped children and how had their diseases affected the children mental capability.

### **5.3 Type of Research**

The following study is quasi experimental research based on observation and analysis of two groups, namely as a controlled group and uncontrolled group.

### **5.4 Procedure**

The primary goal of research is to investigate the causes of language pathologies and their effects on the life of children education outcome. The study applied following steps in the collection of data. The children of various language pathologies were placed in two equal groups, each group of 10 had the same age ,history of their illness and equal social status .First group namely controlled group was given highly medicated therapy to cure their speech pathologies named Brainin Drops and Hydergin Drops according to the prescription of physician .They were also evaluated with the aid of speech therapy. It was given to them thrice daily with various techniques and methods. They were supported along with high calories intake diet in the shape of fresh milk, beef and fruits. They were morally encouraged to promote their stimulus and response process. They were hospitalized in luxurious and joyous environment and were educated very politely and sympathetically by kind and generous special education teachers. Every entertaining facility was also provided them in the shape of TV and various games etc. The second group namely uncontrolled group was not given any medical aid, speech therapy, good diet and entertaining environment. They were left in open and free environment in routine activities. The duration of this research was two months because it was needed to consult various physicians by the researchers and they advised him to give treatment for minimum two months.

Both groups were experimented with the help of instrument and data was collected to draw findings and conclusion.

## 6. Findings

After the completion of treatment and application of instruments, the researchers attempted to collect the questionnaire and analyzed and interpreted the outcome. There was not any improvement in controlled group children and they were suffering from speech pathologies accordingly. But their physical condition was improved and observations and analysis were indicating that they were less depressed than uncontrolled group. They were looking good in study and their progress was better than uncontrolled group and they were also less deprived and having mental stability. The uncontrolled group was suffering from huge inferiority complex and anxiety. In the following lines the major agents are reflected which directly or in directly are responsible in speech pathologies.

Serial NO	Major Agents	Ratio
1	Dysfunctional Brain due to the various problems	35%
2	Articulators Impairment	20%
3	Hearing Loss	40%
4	Muscular Problems	5%

The ratio and percentage of causes and their effects in congenital illness were following.

Serial No.	Disease	Causes	Percentage
1	Speech Pathologies (Congenital)	Family Marriage (Especially between first cousins )	70%
		Premature birth	10%
		Drug reaction and Drug side effects	5%
		Onset of Communicable Diseases	5%
		Poor Delivery Procedure, Process and management.	2%
		Vaccination Failure	3%
		Poor Neo-Natal Management in case of occurring any illness	5%

The ratio and percentage of causes and their effects during the course of life illness were following.

Serial No.	Disease	Causes	Percentage
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2	Speech Pathologies (During Life)	Trauma or accident	50%
		Cerebral Vascular Accident	45%
		Drug reaction and Drug side effects	5%

## 7. Discussion

The results display that in Pakistani context speech pathologies are dominating and these are prevailing due to the specific reasons. The prevalent cause of these pathologies is family marriages and especially those which are repeated continuously in first cousins simultaneously. There are also a few others factors which are generating these issues and these are the followings:

- There is lacking of basic medical facilities to educate the families in overcoming this problem and business and marketing lobby circles are also responsible in this aspect.
- Lack of educational awareness and poor social norms pose a big hindrance.
- Mothers are not given required nursing and domestic care during pregnancy.

Above given research proves as a very necessary object that children suffering in speech pathologies should never be ignored but they should be given intensive and affectionate care and managements by their parents, speech pathologists, linguists and special education teachers and then they will not only cause less discouragement, anxiety and inferiority complex but also they will be able to get education and survive peacefully.

## 8: Conclusions

Finally it is concluded that researchers may not be able to find exact results in the light of hypothesis. It is possible that any variation may exist between real consequences and researchers' findings. But community should be determined to overcome the above mentioned problems in speech pathologies according to the guidelines given by various professionals and researchers of this research. Furthermore, professionals like physicians, speech therapists, linguists, and special education teachers should play their role in decreasing speech pathologies and the causes too be minimized for those who are blamed to be affected in this disease. Finally it is recommended by the researchers that decreasing speech pathologies will never be single handed effort but multiple strategies must be involved for the achievement of the set goal.

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