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How a Cochlear Implanted Child has been Studying with Typical Developing Children?

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ABSTRACT

The name of the girl Umaira was 3 years old. She had deficit in hearing of her right ear with the symptoms unable to speak and did not understand any command. The ENT (Ear-Nose Throat) specialist diagnosed the case as Sensori-neural hearing loss and he implanted the Cochlear implant in her right side of the brain. The ENT specialist suggested Umaira's mother to admit her in a Deaf special school because she will not be able to speak and understand any command like her aged typical developing children. After at about of three months of cochlear implant she came to the Speech and Language Therapy department of CRP Mymensingh-BAU Centre. The case was assed Sensori-neural hearing loss with Cochlear Implant and Speech & Language Disorder. The application of Speech and Language Therapy included Clinician directed approach, Parent-Child interaction approach, Auditory Verbal therapy and Distinctive Features methods were applied within 14 months in 112 sessions. Umaira has developed her Expressive and Comprehension skills along with the Communication skills after the application of above methods. This study will aware the parents of cochlear implant children about a vital role of Speech and Language Therapy in their normal lifestyle.

KEYWORDS: *Auditory Verbal therapy, Clinician directed approach, Cochlear implant, Parent Child interaction approach, Case report.*

INTRODUCTION

Sensori-neural losses deform the speech signal and some speech sounds may be unreachable. Increasingly audiometry is able to discover where exactly difficulties lie on the auditory pathway. It can be now be defined these losses are either sensory or nerve or mixed in origin (Myra K. & Jannet A. Wright). A cochlear implant is an electronic device that upgrades hearing. Cochlear implants play roles as a sound processor that fits behind the ear and pulls in sounds from outside the ear. It sends sound signals to a receiver that's been placed under the skin behind the ear (Mayo Clinic, 2025). Children with Speech and Language Disorder are not able to understand the spoken language and difficulty to use the language to express their thoughts and feelings (Stantford Medicine Children's Care, 2025). Mainly child's developmental age is not matched with his/her chronological age is called disorder (LeaderLive, 2025). Umaira was born with the Sensori-neural hearing loss. Due to her this impairment, she was not able to express her needs and did not response when her parents call. She got cochlear implant when she was only 3 years old but she had lacking in Expressive and Comprehension skills. Her ENT specialist suggested Umaira's mother to admit her in a Deaf Special school this comment made the mother heart broken. But she did not stop searching and found the information about the Speech and Language Therapy of CRP Mymensingh-BAU Centre. Umaira came under my supervision and I assed the case as Sensori-neural losses with Cochlear Implant and Speech & Language Disorder.

I applied therapeutic protocols and within 14 months and 112 sessions an impressive development occurred to the patient. This case was fascinating and amazing to me and this information will create consciousness to the patients having Sensori-neural hearing loss.

OBJECTIVES OF THE STUDY

General Objectives

To be able express her daily needs and comprehend her age-appropriate instructions in all environments.

Specific Objectives

- Upgrade her vocabulary resource
- To response her age-appropriate instructions
- To engaging in meaningful conversation

METHODOLOGY

It is a Clinical Case study. The name of my patient was Umaira. She was born with Sensori-neural loss. Although she got cochlear implant in early age but she did not response when her parents call her by name. Her parents went to an ENT specialist for checkup; he commented them to take Speech

and Language Therapy treatment but it might be difficult for Umaira to study in a normal school with the typical developing children. Umaira's parent brough her to take SLT treatment at CRP Mymensingh-BAU Centre. She took two sessions in every week and total of 112 sessions in 14 months. Umaira was assed Sensori-neural losses with Cochlear Implant and Speech and Language Disorder. CSLT included some Speech and Language Therapy approaches like Clinician directed approach, Parent-Child interaction approach, Distinctive Features approach and Auditory Verbal therapy. For the case study ethical consideration was applied. To upgrade her vocabulary resource Clinician directed approach (Fay, M. 1986) and Parent-Child interaction approach (Dodd et al, 2001; Eadie et al, 2004) were applied. To response her age-appropriate instructions and engaging her in meaningful conversation Distinctive Features approach (Joffe, B. & Serry, T., 2004) and Auditory Verbal therapy (Van Bogaert L et al., 2023) were applied.

RESULTS & DISCUSSION

The name of the client was Umaira 3 years old and she came to me after the Cochlear Implant. Due her Hearing impairment even though she got Cochlear Implant, she could not say or response to anything. She took medical treatment for checkup. The ENT specialist suggested Umaira's mother to admit in a Special school for Deaf children and also said to go under a supervision of a Speech and Language Therapist. Admitting Umaira to a special school was not easy for Umaira's mother. She had a faith that Umaira will be able to study in a normal school. Then she took Umaira to CRP Mymensingh-BAU Centre. Umaira's Speech and Language Therapy treatments had started under my supervision. The case was estimated as the Sensori-neural losses with Cochlear Implant and Speech & Language Disorder.

The patient was given Clinician directed approach and Parent-Child interaction approach to obtain her Lexical Recourse. The Clinician directed approach has three major activities: 1. Drill 2. Drill Play 3. Modelling (Fay, M. 1986). The Parent-Child interaction approach at this point I used the core component of this approach named Indirect Language Stimulation (ILS). ILS has 4 techniques such as 1. Self – Talk 2. Parallel Talk 3. Imitation 4. Expansion / Adding-On (Dodd et al, 2001; Eadie et al, 2004; Allen & Marshall., 2011).

To improve child's articulation, phonological and pragmatic skills, Auditory Verbal therapy and Distinctive Features methods were applied. Distinctive Features methods consist of four main steps: 1. Understanding the meaning of the target words 2 Discrimination between word pair. 3. Distinguish between word pair in speech production 4. Increasing the level of linguistic complexity (Joffe, B. & Serry, T., 2004). Auditory Verbal therapy has 4 steps; they are 1. Awareness 2. Identification 3. Discrimination 4. Comprehension (Van Bogaert L et al. (2023). An almost similar communication, swallowing and reading-writing disorder occurred in a Head injury patient (Trisa, 2025) and the patient developed all the disorders by the application of SLT methods (MIT, OME, Dysphagia Maneuvers, Vanriper Traditional Approach). However, Umaira responded all most equally like that head injury patient but treatment methods were different.

Within 14 months total 112 SLT sessions Umaira is now able to say her needs and can follow commands. Umaira's mother has admitted her in a Primary school and she is able to communicate with her family and friends and her class teacher declared her the best student among the class https://www.facebook.com/share/r/16px1Rxvjp/.

This information will make alert about the role of Speech & Language Therapy to the patients having Sensori-neural hearing loss.

CONCLUSION

A cochlear implanted child after Speech & Language Therapy treatment coped with typical developing school going children.

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10. https://www.facebook.com/share/r/16px1Rxvjp/. Gratefulness by Jannatun Nisa, mother of Umaira to Sabrina Hossain Trisa.

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