

PECULIARITIES OF SPEECH IN CHILDREN WITH ALALIA

Oripova Zilola

Master's Student,

Tashkent International University of Chemistry

Annotation: This article examines the specific characteristics of speech development in children diagnosed with alalia — a severe form of speech disorder caused by underdevelopment of the speech centers in the brain. The study analyzes the linguistic, psychological, and neurological aspects influencing delayed speech formation and communication difficulties. Special attention is paid to the types of alalia (motor and sensory), their manifestations, and the importance of early diagnosis and corrective-pedagogical intervention. The paper highlights modern methods of speech therapy and integrated approaches that combine medical, psychological, and pedagogical measures to improve communication skills in affected children. The findings emphasize the significance of early and individualized intervention in achieving positive speech outcomes.

Keywords: Alalia, speech development, speech disorder, motor alalia, sensory alalia, speech therapy, language correction, neuropsychology

INTRODUCTION

Speech plays a central role in a child's cognitive, emotional, and social development. It serves as the foundation for learning, communication, and personality formation. However, in some children, speech development is severely impaired due to organic or functional damage to the brain's speech centers. One of the most complex and rare disorders of this type is alalia — a condition characterized by a complete or partial absence of speech in children with preserved hearing and normal intelligence. Unlike simple speech delays, alalia is associated with deep neuropsychological dysfunctions that affect both expressive and receptive language abilities. Alalia is commonly classified into two main types: motor alalia, in which a child understands speech but cannot express thoughts verbally due to impaired motor planning of articulation, and sensory alalia, in which comprehension of speech is disturbed because of dysfunction in the auditory-speech analysis system. In some cases, mixed forms occur, combining symptoms of both types. The prevalence of alalia varies across populations, but early studies suggest that it accounts for up to 1–2% of all speech pathologies among preschool-aged children. The etiology of alalia is multifactorial, often involving prenatal or perinatal damage to the central nervous system, genetic predisposition, infections, or prolonged oxygen deprivation during birth.

Materials and Methods

This study was conducted to identify and analyze the specific linguistic and neuropsychological characteristics of speech development in children with alalia. The research was carried out at specialized speech therapy centers and preschool correctional institutions that provide comprehensive assistance to children with speech and language disorders. The study involved 30 children aged 4 to 7 years who had been diagnosed with either motor or sensory alalia. All participants had normal hearing and intellectual development, as confirmed by pediatric neurologists and psychologists. The control group consisted of 15 age-matched children with typical speech development. Exclusion criteria included hearing loss, intellectual disability, autism spectrum disorders, and severe

THE MULTIDISCIPLINARY JOURNAL OF SCIENCE AND TECHNOLOGY

VOLUME-5, ISSUE-11

neurological conditions unrelated to speech development. To ensure objectivity and reliability, both qualitative and quantitative methods were employed: Clinical and psychological observation – used to monitor children’s verbal and nonverbal communication, behavior, and emotional responses during interaction. Speech diagnostic testing – included phonetic, lexical, grammatical, and semantic assessments using standardized tools (Luria’s neuropsychological battery, Tolkacheva’s speech development scale, and adapted language assessment tasks).

Results

The analysis of the obtained data revealed significant differences between children with alalia and those with typical speech development across all linguistic and neuropsychological domains. The findings demonstrated that children with alalia exhibit a complex pattern of speech underdevelopment characterized by limited vocabulary, poor grammatical structuring, and reduced phonemic awareness. Children with motor alalia showed severe difficulties in articulating complex sounds and sound combinations. Most participants produced simplified syllabic structures (e.g., CV or CVC patterns) and frequently omitted consonants at the end of words. The substitution and distortion of sounds were common, particularly with consonant clusters such as /s/, /r/, and /l/. In contrast, children with sensory alalia demonstrated inconsistent sound recognition and confusion between phonetically similar words, indicating impaired auditory differentiation. Vocabulary acquisition in alalic children was markedly delayed. The average active vocabulary of 5-year-old children with motor alalia corresponded to that of typically developing 2.5–3-year-olds. Many children relied on gestures, mimicry, and nonverbal cues to compensate for their limited verbal expression. The use of abstract and relational words (such as prepositions and adjectives) was notably scarce, leading to difficulties in constructing meaningful utterances. Speech samples showed that sentences produced by children with alalia were primarily telegraphic, consisting of one or two words with minimal grammatical markers. The understanding of morphological elements (such as tense, number, and case) was incomplete, resulting in grammatically incorrect constructions. For example, sentences like “Boy go school” or “Mama give me water” were frequently observed.

Discussion

The results of this study confirm that alalia represents a complex neurodevelopmental disorder in which linguistic, motor, and cognitive systems are simultaneously affected. The observed speech patterns in children with both motor and sensory alalia support previous research indicating that speech impairment in such cases is not confined to language mechanisms alone but involves a broader dysfunction of brain regions responsible for attention, perception, and motor planning. The phonetic and phonological errors identified in motor alalia are closely associated with dysfunctions in Broca’s area and adjacent motor pathways that coordinate articulatory movements. This finding aligns with studies by Vygotsky (1986) and Luria (1998), which described speech production as an integrated neuropsychological process involving cortical and subcortical interactions. Similarly, the inconsistent auditory perception found in sensory alalia supports the hypothesis of impaired functioning in Wernicke’s area, responsible for decoding verbal stimuli and linking sounds to meaning. The strong correlation between limited speech ability and poor auditory memory observed in this study suggests that alalia is fundamentally tied to delayed development of working memory and sequential processing. These deficits hinder the child’s ability to retain and reproduce verbal information, which in turn delays lexical and grammatical growth. Previous findings by Bishop & Snowling (2004) and Korkman (2010) also highlight the close relationship between speech underdevelopment and

executive function deficits, emphasizing that speech therapy should incorporate cognitive exercises alongside linguistic training. The effectiveness of the integrated correctional approach observed in this research confirms that children with alalia respond best to a multidisciplinary intervention model combining speech therapy, neuropsychological training, and sensorimotor stimulation.

Conclusion

The present study provides an in-depth analysis of the distinctive features of speech development in children with alalia and highlights the multifactorial nature of this disorder. The results demonstrate that both motor and sensory alalia arise from dysfunctions in the brain's speech centers, leading to disruptions in phonetic, lexical, and grammatical processing. These deficits are closely interrelated with cognitive underdevelopment, particularly in memory, attention, and sequential organization of speech activity. Early and comprehensive intervention, combining speech therapy, neuropsychological correction, and sensorimotor training, proved to be the most effective approach in promoting speech and communication skills. The study confirmed that individualized therapy programs, initiated at an early developmental stage, significantly enhance expressive and receptive language outcomes. The findings emphasize the importance of interdisciplinary collaboration among neurologists, psychologists, and speech therapists in diagnosing and treating alalia.

References:

1. Luria, A. R. (1998). *The Development of Speech and the Formation of Mental Processes in the Child*. Moscow: Pedagogika Press.
2. Vygotsky, L. S. (1986). *Thought and Language*. Cambridge, MA: MIT Press.
3. Bishop, D. V. M., & Snowling, M. J. (2004). "Developmental Dyslexia and Specific Language Impairment: Same or Different?" *Psychological Bulletin*, 130(6), 858–886.
4. Tolkacheva, E. I. (2015). *Modern Methods of Speech Therapy for Children with Alalia*. St. Petersburg: Rech.
5. Korkman, M. (2010). "Cognitive and Linguistic Development in Children with Neurodevelopmental Disorders." *Journal of Child Psychology and Psychiatry*, 51(3), 262–270.
6. Hresko, W. P. (2018). *Language Development and Disorders in Early Childhood*. New York: Routledge.
7. Zaretsky, V. K., & Kornev, A. N. (2019). "Neuropsychological Approaches in the Study and Correction of Speech Disorders." *Russian Journal of Cognitive Science*, 6(4), 55–66.