

## Review Article

### Dyslalia as a Speech Disorder in Children

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#### ABSTRACT:

Dyslalia is the inability to correctly produce proper speech phonetics of a language that is based on any disorders of the articulation organ anatomy, the absence of any neurological disorders, and the absence of any hearing disorders. The condition of the central or peripheral nervous system is normal, but it is an impairment caused by faulty lessons while learning to speak. The etiologies of dyslalia is multifactor, it can be caused by the persistence of mistakes while articulating, the incorrect imitation of articulating patterns, effect on the articulation of vision abnormalities, and environmental factors. The characteristics of a dyslalia patient are the absence of hearing disorders, disturbances in neurological structure and their tendency to speak spontaneously rectification, their complex articulation impairment, and delay in the sounds of language experience. There are four kinds of dyslalia: evolutionary, functional, audiogenic, and organic. Problems that will occur in patients with dyslalia are miscommunication and language development. The patient will avoid communicating with other people as they are often misunderstood by them. As for language development, phonetic disorders will occur that will affect the meaning of the words spoken by patients with dyslalia. If people with dyslalia are not treated, there can be intellectual, cognitive, motivational processes (perception, attention, memory, thinking), and even disrupted social behavior. Dyslalia treatment may include tests of articulation, phonetic placement method, motoric exercises of the muscles of the mouth, treatment of the teeth if needed orthodontic treatment, and frenectomy.

**Keywords:** dyslalia, speech disorders, children

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#### INTRODUCTION

Education is an activity to develop knowledge by fostering personal abilities. The right place to improve education in school. So that children can be educated and given knowledge in order to become human beings who are educated and have noble character. In general, the education and teaching methods given to each child are the same, they are given reading, writing, spelling, and arithmetic activities. It is hoped that this will be well received and help children to facilitate the learning process. However, what we expect is sometimes not in accordance with reality, meaning that not all children can easily learn. This is because of communication difficulties, such as dyslalia, which is a term used for children who have articulation disorders caused by the absence of physiological disorders or functional articulation disorders.<sup>1,2</sup>

Problems that can occur in people with dyslalia are miscommunication and language development. Dyslalia sufferers often experience communication

barriers, this is due to a misunderstanding between the patient and the person being spoken to as a result of a misunderstanding. If people with dyslalia are not treated, there can be intellectual, cognitive, motivational processes (perception, attention, memory, thinking), and even disrupted social behavior.

#### DYSLALIA

Dyslalia is a condition in which there is articulation damage caused by learning errors or abnormalities in the organs of articulation and not damage to the central nervous system or peripheral nervous system.<sup>2,3,4</sup> Dyslalia is defined as defective articulation due to faulty learning or abnormality of the external speech organs and not to lesions of the central or peripheral nervous system. Dyslalia is etymologically derived from the Greek, dis means sick or bad and lalia means talk.<sup>1</sup> The incidence of dyslalia is not known, but research in Egypt from 1974-1976, that the prevalence of dyslalia in Egypt is

around 9.14%, the incidence rate in boys is twice compared to girls. Patients ranged in age from 5-35 years. 9.6% of patients were aged between 5-8 years, 90.4% were more than 8 years old, the rest were more than 20 years old.<sup>5</sup> The etiology of dyslalia is multifactor, it can be caused by the persistence of incorrect articulation habits (organic), imitation of incorrect articulation patterns (socio-biological), and environmental factors (Socio-biological).<sup>1-9</sup> Persistence of incorrect articulation habits is one of the factors causing dyslalia. During early speech development, the ability to speak the language can occur quickly, so that children fail to imitate the phonemes necessary for speech. The most common deformed phonemes are consonant, but also vocalic ones. Failure to imitate the phonemes necessary for speech, is due to the late maturation of the articulation function, possibly related to the teeth, tongue, palate, and frenulum, which can cause the imitation of articulation patterns to be incorrect. Imitation of incorrect articulation patterns can lead to dyslalia. The term dyslalia also includes articulation disorders caused by imitation of children's speech disorders. Imitation is usually from other children or from adults in the family environment. Sometimes the child imitates the pronunciation of a hearing-impaired family member, or from someone who has a cleft palate disorder. In this case, it is possible that the child will imitate the person because he thinks he is speaking right, therefore the parents must tell him that this way of speaking is mistaken. The presence of a deformed oral habit is closely related to dyslalia, the most common of which are: finger sucking, mouth breathing, rhinolalia, difficulty chewing, atypical swallowing, upper and lower lip sucking, and pacifier sucking.<sup>1</sup> Organ that plays a role in determining the articulation of phonemes are the lips, tongue, cheeks, palate, respiratory system, supraglottic cavity. The simultaneous movement of the tongue, cheeks, pharyngeal muscles, and soft palate will produce a sound beam that is tailored to the speaker's wishes.<sup>1</sup> Etiologically, dyslalia is divided into four types: evolutionary, functional, audiogenic, and organic.<sup>1,4</sup> Evolutionary dyslalia is an articulatory change that shows at an early age (3-4 years) with physiological characteristics of children's language development. During this period, normal language learning occurs with age. Functional dyslalia is a change in word articulation, due to poor coordination of movements required to articulate certain phonemes. In this case, there are no physical or organic abnormalities, but there are functional disabilities caused by poor education, poor social conditions resulting in motor incoordination. Audiogenic dyslalia is a type of dyslalia due to partial hearing loss, and joint disorders may also occur. Hearing loss makes it difficult to recognize sound reproductions with phonetic similarity. While organic dyslalia is a

type of dyslalia accompanied by deformities or structural abnormalities such as joint disorders (anatomical anomalies or malformations). This will occur functional articulation disorders, chewing, sucking, swallowing. There are a number of possible abnormalities of the organs that play a role in articulation such as the shape of the mouth, namely cleft lip, paralysis, small lip size. In tongue disorders such as macroglossia or microglossia, short tongue frenulum, asymmetry, paralysis. The condition of the teeth is seen in large, small shapes, or crowding, crossbite, open bite, overjet.<sup>1-6</sup>

### HOW TO DIAGNOSE<sup>1</sup>

The steps to be followed to assess a child's language level are:

1. Get to know the general level of development of the child, through previous evaluation reports or by direct observation.
2. Perform different procedures to determine language processes and functions, developmental level, and perceptual and motor skills.
3. Determine the sequence of evaluation activities.
4. Control different types of variables in evaluation, place, time, stimulus, sequence, motivation, memory.
5. Perform a general health examination, psychological examination (personality and intelligence), and language evaluation.
6. Determine the level of evolution of the child, write it on your score sheet.

### ASSESSMENT RESULTS IN THE ORAL CAVITY

1. Improper tongue morphology: macroglossia, microglossia, tongue frenulum too short, too thick.
2. Incorrect construction of the palate: cleft palate, narrow palate, too wide palate.
3. Malocclusion – open bite, overjet, overbite, and cross bite, protrusion, retrusion.
4. Dental anomalies: diastema, microdontia.
5. Third tonsil hypertrophy.
6. Polyps.

Clinical examination of patients with dyslalia has the following signs; (1) absence of hearing loss, (2) absence of neurological disorders, (3) presence of spontaneous speech correction, (4) presence of delay in speech sounds, although not all of these occur in these circumstances.<sup>10,11</sup>

Changes in the environment will bring better improvements, in the emotional state of the child, so that the child will be motivated to want to communicate more smoothly, and must practice regularly. Because speech is a social function, feelings of happiness and security will motivate speech development and use in everyday situations comfortably.<sup>12</sup> Dyslalia can be temporary if the

environment supports improvement. If people with dyslalia are not treated, intellectual, cognitive, and motivational processes (perception attention, memory, thinking) will be disturbed, and even social behavior will be disrupted.<sup>12</sup> The team professionals to look after dyslalia patients are: educator, with some qualifications appropriate for the kind of disability of young man, psychologist, pediatric dentition, speech therapist, and other specialist depending on the needs of the child.

### CONCLUSION

Dyslalia treatment can be done by: articulation test, phonetic placement method, motor exercises of the oral muscles, dental repair, or frenectomy. Dyslalia can be temporary if the environment supports improvement. If people with dyslalia are not treated, intellectual, cognitive, and motivational processes (perception, attention, memory, thinking) will be disturbed, and even social behavior will be disrupted.

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