

## RESONATING STRUGGLES: IDENTIFYING POST-SURGERY SPEECH DISORDERS AMONG CLEFT LIP SUFFERERS AT YAYASAN UMMI ROMLAH

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### ABSTRACT

*This research investigates the speech disorders experienced by individuals who have undergone cleft lip surgery at Yayasan Ummi Romlah. The study aims to identify the specific types of speech disorders resulting from cleft lip sufferer after the surgery, as well as to determine which sounds remain difficult to articulate after the procedure. The research contributes to a deeper understanding of the speech challenges faced by cleft lip and palate patients following surgery. Employing a qualitative method, the study encompasses data collection and analysis techniques. Language utterances from cleft lip patients, primarily obtained through dialogues using the "Simak, Rekam, Catat" method, constitute the study's data. Through listening and recording language usage, the research captures important points from interviews and reading text. The research entails interviewing patients to gain insights into their experiences and identifying the specific phonemes, words, and sentences that pose pronunciation challenges. Video recordings of patients' speech are also collected for subsequent analysis. It reveals that certain patients struggle with enunciating vowels such as /a/ and /i/. Furthermore, difficulties arise in pronouncing consonant sounds, including /r/, /g/, /h/, /k/, and /n/. These challenges are attributed to imperfections in the speech apparatus stemming from the lip, palate, throat, and nose. Remarkably, despite surgical interventions, common speech disorders among the patients involve voice and articulation irregularities, resulting in nasally and roughly produced sounds. The findings illuminate the enduring impact of cleft lip on speech coordination and suggest that surgical enhancements may not entirely mitigate speech difficulties.*

**Keywords:** Resonating struggles, speech disorders, cleft lip sufferers, Yayasan Ummi Romlah

### ABSTRAK

*Penelitian ini menyelidiki gangguan bicara yang dialami oleh individu yang menjalani operasi bibir sumbing di Yayasan Ummi Romlah. Penelitian ini bertujuan untuk mengidentifikasi jenis gangguan bicara tertentu yang diakibatkan oleh penderita bibir sumbing setelah operasi, serta untuk menentukan suara mana yang masih sulit diartikulasikan setelah prosedur. Penelitian ini berkontribusi pada pemahaman yang lebih mendalam tentang tantangan bicara yang dihadapi oleh pasien bibir sumbing dan langit-langit mulut setelah operasi. Dengan menggunakan metode kualitatif, penelitian ini mencakup teknik pengumpulan dan analisis data. Tuturan bahasa penderita bibir sumbing, terutama diperoleh melalui dialog dengan metode "Dengar, Catat, Catat", yang merupakan data penelitian. Melalui mendengarkan dan mencatat penggunaan bahasa, penelitian menangkap poin-poin penting dari wawancara dan membaca teks. Penelitian ini memerlukan wawancara pasien untuk mendapatkan wawasan tentang pengalaman mereka dan mengidentifikasi fonem, kata, dan kalimat spesifik yang menimbulkan tantangan pengucapan. Rekaman video ucapan pasien juga dikumpulkan untuk analisis selanjutnya. Hal ini menunjukkan bahwa pasien tertentu mengalami kesulitan dalam mengucapkan huruf vokal seperti /a/ dan /i/. Selain itu, timbul kesulitan dalam mengucapkan bunyi konsonan, antara lain /r/, /g/, /h/, /k/, dan /n/. Tantangan-tantangan ini disebabkan oleh ketidaksempurnaan alat bicara yang berasal dari bibir, langit-langit mulut, tenggorokan, dan hidung. Hebatnya, meskipun telah dilakukan intervensi bedah, gangguan bicara yang umum terjadi pada pasien melibatkan ketidakaturan suara dan artikulasi, yang mengakibatkan suara yang dihasilkan melalui hidung dan kasar. Temuan ini menjelaskan dampak jangka panjang dari bibir sumbing terhadap koordinasi bicara dan menunjukkan bahwa perbaikan bedah mungkin tidak sepenuhnya mengurangi kesulitan bicara.*

## **INTRODUCTION**

In this age of globalization, significant changes are occurring worldwide. These profound shifts manifest when individuals possess a strong yearning for achievement. People's aspirations can be realized when they can effectively articulate their thoughts and viewpoints to others. Additionally, acquiring communication skills is essential for attaining one's ambitions, desires, and objectives. Effective communication hinges on the recipient's comprehension of the speaker's message. Therefore, the question arises: how can individuals transmit information to others without the ability to eloquently express their ideas verbally? In essence, learners must possess the capacity to speak effectively in order to facilitate meaningful communication with one another (Wulandari, Amalia, & Ramdhani, 2022). Communication is an important aspect of everyday life, as it allows individuals to convey and exchange thoughts and ideas with others. According to Harley (2001), language plays an important role in understanding human behavior, and according to Fromkin (2011), language is more than just spoken and written forms, encompassing a variety of signs and sounds that humans can understand. Language serves as a vital means of communication, playing an important role in human survival. Therefore, the study of language has become an important field of study. Language is an inseparable part of human life and civilization, and there is no human activity that does not involve language. Given its importance, linguistics has emerged as a discipline that focuses on examining all aspects of language and its correlates.

Linguistics is concerned with the study of human nature and language and has significant implications for areas such as education, sociology, language teaching, cognitive science, and psychology. Everyone's language ability varies due to various factors such as age of acquisition, environment, and personal circumstances, all of which affect their ability to use language effectively. However, some people have a language disorder, also known as a communication disorder, which refers to a condition that affects a person's ability to understand, use, or produce language effectively. Adrian (2001) said that these disorders can manifest in a variety of ways and affect different aspects of language, including spoken language, written language, and non-verbal communication. One type of language disorder is speech-sound disorder. Speech-language disorders involve difficulties with articulation or pronouncing sounds correctly. This can lead to speech that is difficult to understand, making communication difficult.

These disorders affect the language process by interfering with the formation of sounds and can be associated with problems in the speech organs. According to Suwento's (2002) interpretation of Schum R.L., speech refers to the production of sounds for communication and pronunciation. Meanwhile, language skills include four domains, namely phonology, semantics, pragmatics, and syntax. These domains are aspects that cannot be separated from the communication aspect of language. According

to Adrian (2001), phonology refers to the process of putting together the various sounds of language, while pragmatics deals with the social purposes served by language.

Based on data received by the Ministry of Health of the Republic of Indonesia in 2019, out of 54 data points from 30 countries in 1 year, The prevalence of cleft lip and palate in the world is 9.92 out of 10,000 births. As many as 65% of head and neck abnormalities are cleft lip and palate. The incidence varies by geographical location, ethnicity, and gender. Asian ethnicities have the highest incidence of cleft lip and auricle, while African ethnicities have the lowest. The Centers for Disease Control estimate that every year 2,651 infants in the United States are born with cleft lip, and 4,437 infants are born with cleft lip. The national prevalence of cleft lip and palate in Indonesia is 0.2%. DKI Jakarta province was found to top the list for cleft prevalence, at 13.9 percent, well above the national rate, while other provinces such as South Sumatra, the Riau Islands, West Nusa Tenggara, and Nanggroe Aceh Darussalam ranked afterward. The lowest prevalence was found in Jambi, West Kalimantan, and West Sulawesi provinces at 0.4 each. The incidence of cleft lip and palate in Indonesia is 7500 per year. In South Sumatra, the incidence of cleft patients is 10.6 percent, with many children suffering from clefts. Factors that can influence the occurrence of cleft lip and palate are genetic factors, nutrition, and living habits. However, the provincial government is making an effort to organize a free cleft lip and palate surgery social service. This is done almost every year in collaboration with hospitals and foundations under Smile Train Indonesia, namely Yayasan Ummi Romlah.

This foundation was established in 2017 and is located in Palembang City, South Sumatra. This foundation is engaged in the social field, namely organizing special operations for cleft lip and palate sufferers. Indra said that he often gets bullied by his friends. This makes Indra feel inferior and ashamed. His activities now include studying at Universitas Syakirti Palembang, which is close to where he lives. Secondly, Fatur is 27 years old and from Palembang, South Sumatra. Second, Fatur started his first surgery in 2023 in April on the lip. The second surgery was performed in June of the same year. Fatur works at a car repair shop located in Jakabaring, Palembang. He got information about cleft lip surgery from the boss where he works. Fatur said that he lacked confidence before the surgery. Now, he said that when he meets people, he is more confident with his new look. Third, Putri from Cengal, Ogan Komering Ilir, South Sumatra Putri is 16 years old. Her daily activities include helping her mother at home and playing. Her mother says that she does not dare to leave the house because her physical condition is different from others'. She had her first surgery in 2022. Now, she has had her fifth surgery. She has started to feel confident about her condition now.

After the surgery, people with cleft lip and palate still make nasal sounds when communicating. The nasal sound that occurs in cleft patients is caused by the oral and nasal cavities used for speech being impaired, resulting in abnormal sound resonance (Chair, 2009). This shows that cleft surgery alone is not enough to solve all the speech problems that may occur in individuals with cleft lip and palate abnormalities. After cleft surgery, there can be persistent symptoms that affect speech, voice, and language

(Putri, 2016). This study aims to determine the relationship between linguistic aspects and cleft.

The research investigates speech challenges post-cleft lip surgery at Yayasan Umami Romlah, illuminating difficulties faced by patients. It enhances comprehension of such disorders, aiding in improved treatment plans. Factors impacting speech outcomes (e.g., surgeon's experience) are pinpointed, optimizing interventions. Effective speech therapy techniques are identified, elevating interventions. By addressing speech issues, the study enhances patients' social, emotional, and educational experiences. Moreover, it raises awareness, reduces cleft lip stigma, fosters understanding, and ameliorates acceptance. In sum, the research advances understanding, identifies influencing factors, enhances interventions, improves patients' lives, and boosts awareness. Through an examination of prior research endeavors, a consistent theme emerges, albeit within varying contexts. The collective insights drawn from several cited studies contribute significantly to our comprehension of the intricate speech challenges faced by individuals living with cleft lip and palate conditions. (Anggoro, 2015) Studies shed light on the domain of atypical vocal patterns within individuals afflicted by cleft lip and palate conditions. The study's primary aim is to enhance the effectiveness of verbal communication through the utilization of technology-infused remedies. These solutions involve the implementation of voice recognition applications rooted in the principles of Mel Frequency Cepstral Coefficients (MFCC).

Noteworthy is the study's remarkable feature: its ability to showcase versatility across diverse age groups and genders, thereby optimizing the handling of voice data processing. Arifah (2021) initiates a linguistic investigation into the voices that emerge after cleft lip surgery. Although both researchers delve into the transformation of vocal traits subsequent to surgical procedures, their areas of emphasis differ. Arifah (2021) examines video content from the viewpoint of a YouTuber, while the other researcher opts for direct interaction with individuals who have experienced cleft lip conditions. This distinction manifests as a methodological difference, with one researcher analyzing videos and the other conducting face-to-face interviews. Lubis (2019) delves into the complex interaction between speech irregularities and psychological elements among those with cleft lip conditions. Importantly, both Lubis and Arifah utilize direct engagement with individuals affected by cleft lip as their main research approach. Nonetheless, their investigative directions diverge notably. Lubis's attention is directed towards the subtleties of sound deviations within the framework of psycholinguistics, whereas Arifah's primary concern revolves around the intricate phonemic aspects present in spoken language, viewed through a phonological lens.

The topic of speech disorders in cleft lip sufferers is very interesting to discuss because it involves various important aspects in the world of medicine and rehabilitation. By better understanding how this condition affects their speech and language abilities, research can provide a basis for improving interventions and treatments that can help sufferers communicate more effectively and improve their

quality of life. This creates opportunities for interesting and relevant multidisciplinary research. Before undertaking this type of research, authors should know about a literature review that will help them understand what is already known, weak points in current knowledge, and where their research can make a contribution. Sari (2001) said that obtain the necessary permissions and ethical approval before starting research. This may include funding for research tools, data analysis, and the publication of results. This may include language tests and speech therapy instruments.

Taking the topic of speech disorders in cleft lip sufferers is an important and relevant research step because cleft lip can affect speech development in people affected by this condition. Speech disorders can cause social isolation, difficulty communicating, and psychological problems such as low self-esteem (Sari, 2001). People with a cleft lip may experience delays in speech development, slurred pronunciation, and problems understanding and communicating with others. Understanding the relationship between these medical conditions and speech disorders is important for improving care (Putri, Susanti & Sutanto, 2023). This creates extensive collaboration opportunities to develop the best solutions. This may lead to improvements in clinical care. How this research will be useful for future research depends on the focus and results of the research. Other writers can use your findings to dig deeper into certain aspects of speech disorders in cleft lip patients.

The results may provide better guidance for medical and speech therapy practitioners. By focusing on this topic, you can make a valuable contribution to efforts to understand, prevent, and treat speech disorders in cleft lip sufferers and improve their quality of life. To meet the research objectives, the survey sought to answer the following research questions:

1. What kinds of speech disorders after surgery are experienced by cleft lip sufferers at Yayasan Umami Romlah?
2. What sound cannot be pronounced clearly after cleft lip surgery?

### **Literature Review**

Phonology is the study of the system of sounds, or phonemes, contained in a language. In a linguistic context, sounds or phonemes are referred to as sound units or phonetic units. According to Martha (1996), phonetics is the study of the physical properties of speech sounds. Phonetics looks at the articulatory, acoustic, and auditory aspects of speech sounds. This study covers the rules and patterns in the use of sounds or phonemes, including sound recognition and production, word and phrase formation, and the influence of context on the use of sounds or phonemes in language. According to Yule (2014), Phonemes are the smallest units of sound in a language that can distinguish one word from another. For example, in English, the sounds /b/ and /p/ are phonemes because they can change the meaning of words. The number of phonemes in a language can vary, and different languages may have different sets of phonemes. By studying phonology, we can understand how sounds are organized and used in the language, thus deepening our understanding of the language itself (Rossa, 2000).

Speech disorders can impact an individual's ability to communicate effectively by altering the way they speak (Rossa, 2000). The kind of speech disorder are fluency disorder, articulation disorder, and voice disorder. These disorders affect both children and adults and can range from minor problems with pronunciation to a complete inability to articulate understandable speech (Hoper, 2007) .

Cleft lip, or labioschisis, is one of the human disorders that can be seen at birth (Sudiono, 2007., Wahyu, 2010). A cleft lip is an abnormality of lip formation that is disrupted during growth in the womb. It typically occurs in the first trimester of birth. According to Wahyu (2011) in his journal these variations in severity can range from a small cleft lip, to a cleft lip that forms into the nose. Sudiono (2007) explains according to the location of cleft lip and palate, it can be divided into:

1. Cleft lip (labioschisis) is diagnosed as a birth defect. The lips are not fused together. With labioplasty therapy, namely palate therapy.
2. Cleft palate (palatoschisis) is diagnosed as a congenital anomaly. There is a gap in the palate. With non-surgical (speech therapy) or surgical treatment.

According to the abnormality of cleft lip and palate, it can be divided into:

1. Unilateral : when there is a cleft on one side.
2. Bilateral : when there are two direct clefts on both sides.
3. Complete : the cleft is formed completely through the base of the nose or part of the soft and hard palate is not fused.
4. Incomplete : the gap is formed incompletely only a small part.

There are 3 types of cleft lip.

1. Cleft lip without a cleft palate.
2. Oral cleft palate without cleft lip.
3. Cleft lip with cleft palate.

Laksono (2022), Cleft lip surgery aims to repair the cleft lip and close the lip gap. This surgery is usually performed on babies at least 3 months old, but it can also be performed on children and adults. The results of cleft lip surgery are permanent, but during the child's growth, there will be changes in the lips and mouth in accordance with the child's growth and development. The doctor will continue to monitor and treat the cleft lip after surgery. Cleft lip and palate repair is a surgical procedure that requires a variety of techniques to restore function and improve speech clarity. Usually have speech disorders even after surgery. As an example case, Sell (2021) and Ibrahim (2015) conducted a comprehensive survey of speech results in children born with unilateral cleft lip and palate and reported the presence of speech disability, hypernasality, and consonant errors in these children. In the study, nearly two-thirds of the children had never undergone speech therapy. Speech disorders are strongly associated with reduced clarity. As a case in point, McWilliams (1954) and Lohmander (2008) concluded that there is a direct relationship between speech intelligence and the severity of nasality and articulation errors. Similarly, Williams (1954) examined the relationship between speech intelligibility and PCC (Percentage and concluded that speech intelligibility is affected by PCC.

## METHOD

In this case, qualitative research was used, and the writer investigated what was gained by interviews with participants. The data in this study are various kinds of language utterances spoken by cleft lip patients collected mainly from the form of dialogue obtained through the use of the method of *Simak, Rekam, Catat* (Sudaryanto, 2015). *Simak* method is a method of data collection that is carried out by listening to language use (Sudaryanto, 2015). The listening method in this study was carried out by listening to the use of language in adolescents with cleft lip sufferer by interviewing informants and recording important points from informants. This research also uses the *rekam* method. The recording technique is a data acquisition technique by recording the use of language. Therefore, by applying qualitative research methods, the writer can obtain comprehensive findings regarding the analysis of problems experienced after cleft lip surgery in cleft lip patients at Yayasan Ummi Romlah.

In this research, the writer obtained data from three respondents who have speech disorders (people with clefts). To obtain permission to conduct interviews with cleft lip and palate patients. The writer first asked permission from the social worker that the writer was conducting research at the foundation by providing a research permit. Then, the writer asked the patient and the patient's parents for permission to interview by filling out a statement stating that they were willing to be interviewed and documented for research. First, Fatur (27) He is a complete unilateral cleft lip with palate, where the cleft lip is only on the left side of the nose with full palate involvement. Second, Indra (23) He is a bilateral cleft lip with full cleft palate. Physically, cleft palate with full involvement. Third, Putri (16) She has a facial cleft where almost the entire face has no shape includes speech tools. A condition where the cleft lip is only on the left side without a cleft palate. Additionally, the writers also utilized various supporting sources, such as books, articles, and journals to complement and supplement the research findings.

### Techniques of Collecting Data

The writer utilized multiple documents that have a connection or relevance to the research problem (Mahsun, 2012). As this study employed a descriptive research approach, the writer described and analyzed the data obtained from direct observation of several cleft lip sufferer with speech disorders at the Yayasan Ummi Romlah. The procedures involved in collecting data on speech disorders in cleft patients may vary depending on the methods and techniques used in the study. Some common procedures include:

1. Before do interview, asked for permission to conduct an interview with the patient using a signed statement.
2. Data collection through interviews with patients to find out their experiences and what phoneme words and sentences they can or cannot say.
3. Collection of data through video when patients speak to analysed later.

4. Data collection through literature study from books, journals, reports, and other sources of information related to speech disorder in cleft patients.
5. After that shorting the information in order to clarify the theory.

### **Techniques of Analysis Data**

The process means that its implementation begins with data collection and is carried out intensively (Arikunto, 2016). The purpose of data analysis is to understand the data thoroughly and answer research questions. In this study, the writers analyzed in a way:

1. Viewing and listening to video interviews with cleft lip sufferers.
2. To make the analysis more effective and simple, the writer coded the data. The researcher will write the interview results and the types of articulation in phonology. The steps of data coding in this study are as follows:
  - a. The writer classifies each word spoken by the cleft lip sufferer with the code that has been determined.
  - b. Then, the writer can conclude what category of speech disorder the cleft lip sufferer is experiencing.

## **RESULT**

To obtain the data in the study, we first interviewed people with mild clefts (who have been operated on). This was done so that the writer can see the errors in language (Sudaryanto, 2015). The data was analyzed the kind of speech disorder dan the sounds cannot produced through Indonesian language by interview and reading text.

### **1. Vocal Obscurity in Sufferer of Cleft Lip**

#### **A. Indra**

Sufferer : “Kegiatan seka-ngang Kuli-a”

Normal : “Kegiatan sekarang kuliah”

: “Current activity is college”

The data underlined by the vowel /a/ is obtained from the first subject of the first subject. The vowel /a/ is imperfect and stopped. The imperfection is caused by the obstruction of the articulator or speech device due to part of the speech device due to part of the speech device (cleft lip) that is not yet perfect. The second vowel /a/ after the vowel /i/ in the data sounds nasal and unclear, while the vowel /i/ sounds clear. The vowel /a/ is clearly pronounced but sounds nasal which is produced by the cleft lip reaching the nose and soft palate in the mouth

Sufferer : “Ha-i sen-in sampa-i k-a-m-is”

Normal : “Hari senin sampai Kamis”

: “Monday until Thursday

The data underlined by the vowels /a/ and /i/ obtained by the first word is "Hari". The vowels /a/ and /i/ are imperfect and stopped. the vowel /i/ in the second word "Senin" is called faster. this is due to the emphasis on the hard palate and inner upper

teeth. the vowels /a/ and /i/ sound clear but when mentioning the word "Kamis" it sounds nasal. This imperfection is caused by the obstruction of the articulator or speech organ due to the part of the speech organ (cleft lip) that has not been perfectly produced by the cleft lip reaching the nose and hard palate in the mouth.

#### B. Fatur

Sufferer : “A-bis ker-ja ba-lik ru-mah is-ti-a-hat ”

Normal : “Abis kerja balik rumah, istirahat”

: “After work, go home and rest”

The data underlined by the vowels /a/, /i/, /u/, and /e/. the vowel /a/ in the first syllable of "abis" sounds very unclear due to nasal sounds from the nose. When speaking, the voice is still nasal even though the pronunciation of the word is correct like water going into the nose. This is because the articulator is still not perfect which produces sounds among others: nose and throat.

Sufferer :”Bos tempat a-u e-ja kan te-me-nan. Da-ri si-tu, di ta-wa-ri o-pe-ra-si.U-dah i-tu a-ja di-ka-sih ta-u.”

Normal :“Bos tempat aku kerja kan temenan. Dari situ,di tawari operasi. Udah itu aja di kasih tau”

: “The boss where I work is a friend. From there, he was offered surgery. That's all I'll tell you”

The underlined data are the vowels /a/, /i/, /u/, /o/, and /e/. The vowel /o/ in the first syllable of the word "boss" sounds very nasal and is held back because of the nasal sound (Schonweiler, 1999). When speaking, the sound is still nasal and held at the nose and base of the throat even though some of the pronunciation of the word is correct like water entering the nose. This is because the articulators are still imperfect which produce sounds including: nose and throat.

#### C. Putri

Sufferer : “ Ma-ak, Ma-in, Se-o-lah. U-ah i-u a-a”

Normal : “Masak, main,sekolah. Udah itu aja”

: “Cooking, playing, school. That's all

Based on the data, vocally it is still difficult to distinguish between the vowels /a/, /u/, and /o/. the voice really sounds unclear at all.

Sufferer : “Du-a i-u du-a u-a”

Normal : “Dua ibu dua dua”

Based on the data, the vowel is quite clear although it is faint and still difficult to distinguish between the vowels /a/ and /u/. the sound is really not clear at all.

## 2. Consonant Obscurity in Sufferer of Cleft Lip

### A. Indra

Sufferer : “Kegiatan seka-ngang kuli-a”

Normal : “Kegiatan sekarang kuliah”

The underlined data shows that there are two consonant letters, namely /k/, /g/, /r/ and /h/. The consonants /k/ and /g/ are classified as velar, obstructed, nasal when speaking. While the consonant /r/ is apico-alveolar or interdental. The sound produced changes from /r/ to /ng/. Underlined data, the consonant /h/ is laryngeal where the consonant is released through the widened vocal cords so that air comes out through the glottis/glottal. When pronounced almost perfectly it does not sound like /ku-li-ah/ however, /ku-li-a/ which /h/ becomes /a/ with emphasis. The articulation position when pronouncing the consonant is slightly disturbed, so the consonants /g/ and /k/ are voiced with a slight nasal sound. The consonant /r/ changes and the consonant /h/ is lost and replaced by the vocal /a/ with emphasis at the end of the sentence. (Laksono, 2022)

Sufferer : “Ha-i sen-in sampa-i k-a-m-is”

Normal : “Hari senin sampai Kamis”

The consonant /r/ is apico-alveolar or interdental. "Hari" becomes "Ha-i" where the /r/ consonant is lost resulting in a nasal sound and heavy emphasis at the base of the throat.

### B. Fatur

Sufferer : “ Se-ka-ra u-dah ker-ja ”

Normal : “Sekarang sudah kerja”

The consonants /r/ are apico-alveolar or interdental. the consonant /r/ is not heard and even disappears at the end of the word and the consonant /k/ is velar and the consonant /t/ including alveolar meets in the middle of the vowel /e/ the word is heard but nasally from the nose when speaking there is an emphasis on the area of the speech organ ( palate and throat).

Sufferer : “A-bis ker-ja ba-lik ru-mah is-ti-a-hat ”

Normal : “Abis kerja balik rumah istirahat”

The data is underlined by a consonant /b/ which is bilabial. When speaking, the consonant /b/ is not heard at all. The consonant /r/ is missing and is located between two vowels, namely /i/ and /a/, combined and the resulting sound is nasal due to imperfect speech organs (hard palate and throat) even though the pronunciation of the word is correct like water get in the nose.

### C. Putri

Sufferer : “ Ma-ak, Ma-in, Se-o-lah. U-ah i-u a-a”

Normal : “Masak, main,sekolah. Udah itu aja”

Based on the data, there are several missing consonants, including: consonants /k/, /s/, /d/, /t/, /j/. the result of the loss of these letters due to imperfect speech organs (lips, palate, teeth as well as vocal cords).

Sufferer : “ I-an”, “a-i-a”, “In-a”

Normal : “Jihan,Tania,Indah”

**Table 1.**  
**Types of Speech Disorder in Indonesian on Interview**

No	Sentence	Description
1.	Ma-ak, Ma-in, Se-o-lah. U-ah i-u a-a	Flunecy and Voice disorder
	Ma-ak, Ma-in, Se-o-lah. U-ah i-u a-a	Articulation disorder
2.	Du-a I-u du-a u-a	Fluency disorder
	Du-a I-u du-a u-a	Articulation disorder
3.	I-ma	Voice disorder
	I-ma	Articulation disorder
4.	<u>E</u> -am	Voice disorder
	E-am	Articulation disorder
5.	Ti- <u>g</u> a	Fluency and Voice disorder
	Ti-ga	
6.	<u>I</u> -an, <u>A</u> -I-a, In- <u>a</u>	Fluency and Voice disorder
	I-an, A-I-a, In-a	Articulation disorder

Based on the data, there are several missing consonants, including: consonants /h/, /d/, /t/, /j/. the result of the loss of these letters due to imperfect speech organs (lips, palate, teeth as well as vocal cords). (Lakson, 2022).

### 3. The Type of Speech Disorder

Wendy’s (2010) grouping of speech disorder types according to based on fluency, sound and articulation in cleft lip patients. The following is reading text that has been analyzed based on the data that has been input. Table of several patients through reading text to find out the type of speech disorder that makes it difficult to speak like a normal person.

**Table 2.**  
**The Vowels Error on Interview and Reading Text**

No	Type of Speech Disorder	Total		
		Indra	Fatur	Putri
1.	Voice disorder	62	73	45
2.	Fluency disorder	16	6	11
3.	Articulation disorder	31	12	31
4.	Articulation and Voice disorder	3	1	0
5.	Articulation and Fluency disorder	1	0	1
6.	Fluency and Voice disorder	6	1	5

**Table 3.**  
**The Consonant Error on Interview and Reading Text**

Vowels errors	Indra		Fatur		Putri	
	Interview	Reading Text	Interview	Reading Text	Interview	Reading Text
/a/	9	-	2	1	2	1
/e/	3	2	-	-	-	1
/i/	5	2	2	1	-	1
/o/	-	-	-	-	1	-
/u/	3	1	1	-	1	1

**Table 4.**  
**The Total Type Speech Disorder in Sufferer**

Consonat errors	Indra		Fatur		Putri	
	Interview	Reading Text	Interview	Reading Text	Interview	Reading Text
/R/	10	6	-	2	-	13
/K/	3	4	2	2	1	3
/G/	-	4	1	1	-	4
/H/	2	-	-	2	2	1
/N/	-	2	1	1	2	2

## DISCUSSION

The following are the results of data analysis found during interviews with 3 patients as for errors in pronunciation on interview and reading text (Arikunto, 2016). Based on the data obtained both from the interview and when reading the text. Indra is not yet fluent in mentioning the vowels /a/, /i/, /e/, and /u/. Fatur is not yet fluent in mentioning the vocal letters /a/, /i/, and /o/. Putri is also not fluent in mentioning the vocal letters /a/, /e/, /i/, /o/, /u/. They have in common that They are not fluent in mentioning the vowels /a/ and /i/ because the vowels produced sound nasal, rough produced by the nose and vocal cords that come out hollow from the throat. According to Sudaryanto (2015) and Aziz (2021) in their research, that some people with cleft lip sufferer cant fluent mentioning /a/ and /i/. After the surgery, Indra still has difficulty mentioning the letter /r/, /k/, /g/, /l/, /t/, /h/, /n/. fatur has difficulty mentioning the letter /r/, /k/, /g/, /h/, /n/ and putri has difficulty mentioning the letter /r/, /d/, /g/, /j/, /k/, /l/, /h/, /x/, /s/.that makes they have difficulty saying the letters /r/, /k/, /g/, /h/, /n/. the cause is the imperfection of the speech apparatus starting from the lips, soft and hard palate, throat even nose. Jenedi (1991) said that people with cleft lip and palate even after

surgery need speech therapy still have difficulty pronouncing the letters /r/, /k/, g/. Then, The cause is the imperfection of the speech apparatus starting from the lips, soft and hard palate, throat even nose. We can see from the table that Indra, Fatur And Putri have the same type of speech disorder. they tend to have voice disorders and articulation disorders. As a result of the imperfection of the speech apparatus that causes articulation failure and the resulting sounds rough and nasal. Wendy (2010) states that speech disorders that are often experienced by some people who experience imperfections of the speech apparatus (nose, tongue, palate, lips and throat) are voice disorder and articulation disorder.

## CONCLUSION

Speech disorders often manifest in individuals who have undergone surgery to correct a cleft lip. Although surgical interventions primarily target the enhancement of facial appearance and functional aspects of the lips, these procedures might not comprehensively tackle the potential ramifications for speech abilities. The presence of a cleft lip can disrupt the intricate coordination among vital oral structures essential for the production of articulate speech, encompassing the lips, palate, and tongue.

Consequently, individuals might encounter persistent challenges in accurately articulating specific sounds and phonemes, leading to significant speech difficulties. Upon closer examination, it becomes evident that certain sounds remain challenging for individuals post-surgery. Prior to their respective procedures, each individual exhibited distinct sound articulation difficulties. For instance, Indra struggled with pronouncing the letters /r/, /s/, and /l/ before surgery, and even afterward, he grappled with letters like /r/, /k/, /g/, /l/, /t/, /h/, and /n/, as well as /a/, /i/, /e/, /u/. Similarly, fatur's difficulties with /s/ and /k/ sounds persisted as he faced new challenges with /r/, /k/, /g/, /h/, and /n/ sounds, as well as /a/, /i/ and /o/ vowels. putri, undergoing multiple surgeries, remained hindered in pronouncing the letter r throughout her procedures, reflecting the complexity of her speech challenge, as well as /a/, /i/, /e/, /o/, /u/. notably, the recurrent struggle with certain letters, such as /r/, /k/, /g/, /h/, and /n/, as well as vowels like /a/ and /i/, underscores the lingering speech impediments post-surgery.

Moreover, these speech disorders are often accompanied by voice and articulation disorders, stemming from the inherent imperfections in the speech organs of individuals with cleft lip and palate conditions. The sounds produced during speech exhibit a nasal quality due to the retention and suppression of sound waves within the nasal passages, soft palate, hard palate, upper teeth, and throat. Despite these challenges, it is noteworthy that the observed individuals exhibit a heightened level of confidence in their communication endeavors, resembling the self-assurance of individuals without such conditions.

Speech disorders in individuals with corrected cleft lips are multifaceted and persist even after surgical interventions. The intricate interplay of various oral structures required for effective speech production remains disrupted, leading to ongoing difficulties in articulating specific sounds and phonemes. While certain sounds and

vowels continue to pose challenges, these individuals display a remarkable sense of confidence in their interactions, emphasizing their resilience and adaptability in overcoming speech obstacles.

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