

## COMMUNICATIVE LANGUAGE THERAPY FOR ALZHEIMER'S DEMENTIA IN NEUROLINGUISTICS

**Rico Brianto,  
Marina Pakaja,  
Christian Ishak,  
Musrifa,**

**Merlindawati Hunowu,  
Ayu Ashari Mohamad**

[ricohalimu029@gmail.com](mailto:ricohalimu029@gmail.com), [marinapakaja23@gmail.com](mailto:marinapakaja23@gmail.com),  
[kristianishak22@gmail.com](mailto:kristianishak22@gmail.com), [sifa180801@gmail.com](mailto:sifa180801@gmail.com),  
[hunoumerlindawati@gmail.com](mailto:hunoumerlindawati@gmail.com), [ayuashari3105@gmail.com](mailto:ayuashari3105@gmail.com)

### **Introduction**

Language is an organized communication tool in the form of units, such as words, groups of words, clauses, and sentences that are expressed either orally or in writing. There are many definitions of language, and this definition is only one of them. You can compare this definition with the following definition: language is a human communication system which is expressed through a structured arrangement of sounds or written expressions to form larger units, such as morphemes, words, and sentences, which is translated from English: "the system of human communication by means of a structured arrangement of sounds (or written representation) to form larger units, eg. morphemes, words, sentences" (Richards, Platt & Weber, 1985: 153), with each other using animal language. What is being discussed here is not animal language, but human language, and all the words "language" in this book refer to "human language." In this world there are thousands of languages, and each language has its own system called grammar. There are grammar for Indonesian, grammar for English, grammar for Japanese, and so on. Although communication activities can be carried out with tools other than language, in principle, humans communicate using language. In this context, the language used is human language, not animal language. In certain cases, animals can communicate

People generally don't feel that using language is an incredibly complex skill. The use of language feels normal because without being taught by anyone, a baby will grow along with the growth of his language. From the age of one to one and a half years a baby begins to produce language forms that we can identify as words. These one-word utterances grow into two-word utterances and finally into complex sentences by the age of four or five. After we grow up, we use our language as if without thinking. As soon as we want to express something, it is at that moment that we produce sounds which are called language. However, if we think deeply about it, we will feel that the use of language is a reflection of an ability that only humans can do. Imagine once upon a time you were walking with your child or little nephew at the zoo and saw an animal. You say Look, that's a big lion, huh. One other time, when you were at the shopping center, you said, "Let's just eat somay, shall we?" From these two examples alone we have to ask how we can choose a word that reads [siNa] even though in our minds we must have stored thousands of words, some of which are similar and some of which are not similar to the word or the concept of lion. Conceptually similar to lions are, for example, tigers, gorillas, cats and dogs; which sound similar in form are, for example, cassava, singit, and singkir. Words that are not very similar, for example, tree, gudeg, shoes, and bicycle. Likewise with the word somay: those that are in the

same group are, for example, meatballs, gado-gado, and lontong tahu, which sound similar, for example, busy, peaceful, and satay.

### **Discussion**

Dementia is a loss of memory that can occur together with symptoms of behavioral and psychological disorders in a person (Ikawati, 2009). The earliest features are loss of memory regarding recent events. The intellectual impairment of a person with dementia significantly affects normal activities and relationships. They also lose the ability to control emotions and solve problems, so it is not impossible for them to experience changes in personality and behavior.

Alzheimer's dementia is a neurodegenerative disease that affects brain function, including memory, cognition and language skills. One of the common symptoms in patients with Alzheimer's dementia is difficulty communicating. This can cause frustration both for the patient and for the family and loved ones. Therefore, communicative language therapy is important in helping to improve the quality of life of patients with Alzheimer's dementia. This article will explain the concept of communicative language therapy and the importance of its application in overcoming communication problems in patients with Alzheimer's dementia. Alzheimer's disease (AD) is the leading cause of dementia in older adults. Currently 4.5 million Americans suffer from AD and this number is expected to increase to 13.2 million by 2050 [ 1]. Estimates in Canada suggest that more than half a million people aged over 65 years have AD or a related disease [ 2, 3]. While memory problems are the most characteristic symptom of this disorder, many individuals also experience progressive problems with communication [ 4-6]. The aim of this paper is to systematically review the effectiveness of methods for improving communication between individuals with AD and their formal and informal caregivers. The decline in communication ability in AD occurs gradually and is characterized mainly by problems with object naming [ 7-9], coherence [ 10], and discourse production [11 ]including the use of fewer units of information [ 12], fewer target propositions [12 ]5], and an increase in the proportion of the use of pronouns [ 13]. Language comprehension also deteriorates gradually, although phonological and syntactical skills are retained into the advanced stages of the disease [ 14, 15]. In Alzheimer's disease, nerve damage eventually affects the parts of the brain that allow a person to carry out basic bodily functions such as walking and swallowing (Alzheimer's Association, 2015). In the end, sufferers may experience death after several years because their motor skills are no longer functioning.

### **ALZHEIMER CHARACTERISTICS**

Alzheimer's disease is the most common cause of dementia, accounting for about 60 percent to 80 percent of cases. Difficulty remembering recent conversations, names or events is often the initial clinical symptom, and apathy and depression are also frequent early symptoms. Including impaired communication, disorientation, confusion, poor judgment, changes in behavior, eventually difficulty speaking, swallowing and walking. (Alzheimer's Association, 2015).

**Individualization:** Communicative language therapy is individually designed to meet the unique communication needs and abilities of each individual with Alzheimer's dementia. The therapist will carry out a comprehensive communication assessment to determine the best strategy and approach according to the patient's condition.

**Use of nonverbal methods:** This therapy involves using nonverbal methods such as gestures, facial expressions, and eye contact to assist the patient in conveying messages and understanding communications. This method allows for more effective communication when verbal language skills decrease.

**Increased understanding:** Communicative language therapy aims to increase patients' understanding of the messages being conveyed to them. Through the use of repetition,

simple words, and clear questions, this therapy helps stimulate memory and strengthen communication connections in the patient's mind.

**Role of family and caregivers:** Communicative language therapy involves families and caregivers as partners in the care process. They are involved in learning effective communication strategies and are given support to apply these techniques in their daily interactions with patients. Their involvement helps create a supportive environment and strengthens patient communication.

**Focus on emotions and quality of life:** Communicative language therapy also pays attention to the emotional aspects of the patient. Through empathetic interactions, this therapy helps reduce the stress and frustration that patients with Alzheimer's dementia experience when they face communication difficulties. This has a positive impact on the quality of life of patients and their relationship with the surrounding environment.

**Continuity and adaptation:** Communicative language therapy is an ongoing process. The condition of patients with Alzheimer's dementia tends to change over time, and therapy needs to be adjusted regularly to meet changing needs and abilities. This therapy can be adjusted according to changes in the patient's communication skills and disease progression.

These characteristics characterize the personal, holistic, and adaptive approach of communicative language therapy to Alzheimer's dementia. This therapy places individuals with Alzheimer's dementia at the center of attention, focusing on understanding and improving their ability to communicate, as well as paying attention to emotional aspects and their quality of life.

### **ALZHEIMER CATEGORY**

Alzheimer's categories can be divided into: 1. Predementia: At this level of Alzheimer's there is mild cognitive impairment, memory deficit, as well as apathy, apathy. 2. Early onset dementia At this level of Alzheimer's there are language disorders, vocabulary, oral & written language, perceptual disturbances, movement disorders, looking stupid, lack of initiative to carry out activities. 16 3. Dementia moderate At this level of Alzheimer's there is progressive deterioration, unable to read & write, impaired long-term memory, substitution of words (paraphasia), misidentification, lability, irritability, delusions, urinary system incontinence. 4. Dementia advanced stage (advanced) At this level of Alzheimer's occurs unable to take care of themselves independently, loss of total verbal ability, aggressiveness, extreme apathy, deterioration of muscle mass & mobility, loss of ability to eat.

### **ALZHEIMER CAUSES**

Alzheimer's is a manifestation of a disease such as dementia which can gradually worsen until it causes death. Alzheimer's is thought to occur due to the buildup of beta-amyloid proteins which cause plaques in brain tissue. Normally, beta-amyloid will not form plaques which can cause disturbances of the nervous system in the brain. However, due to protein misfolding, plaque can stimulate nerve cell death. Experts believe that Alzheimer's, like other common chronic diseases, develops as a result of several factors. Causes or factors that cause a person to suffer from Alzheimer's disease include the following:

#### **Age**

The biggest risk factor for Alzheimer's disease is age. Most people with Alzheimer's disease are diagnosed at age 65 or older. Young people less than 65 years of age can also get this disease, although this is much less common. While age is the biggest risk factor. 17

#### **Family History**

Family history with families who have parents, brothers or sisters with Alzheimer's are more likely to develop the disease than those who have no relatives with Alzheimer's. Heredity (genetics), together with environmental and lifestyle factors, or both can be the cause.

#### Education or Work

Some scientists believe other factors may contribute to or explain the increased risk of dementia among those with less education. It tends to have a job that trains less stimulation of the brain. In addition, lower educational attainment may reflect lower socioeconomic status, which can increase a person's likelihood of experiencing malnutrition and reduce a person's ability to pay for health care or receive the recommended treatment.

#### Traumatic Brain Injury (TBI)

Moderate and severe traumatic brain injury increases the risk of developing Alzheimer's disease. Traumatic Brain Injury is a disruption of normal brain function caused by a blow or jolt to the head or penetration of the skull by a foreign object, can also be defined as a head injury resulting in loss of consciousness. Traumatic Brain Injury is associated with twice the risk of developing Alzheimer's and other dementias compared with no head injury.

### **ALZHEIMER SYMPTOMS**

Symptoms of Alzheimer's disease vary between individuals. The most common early symptom is a gradually worsening ability to remember new information. The following are common symptoms of Alzheimer's:

- a. Memory loss that interferes with daily life.
- b. Difficult in solving simple problems.
- c. Difficulty completing familiar tasks at home, at work or at leisure.
- d. Confusion with time or place.
- e. The problem of understanding visual images and spatial relationships.
- f. New problems with words in speaking or writing.
- g. Misplacing things and losing the ability to retrace steps.
- h. A drop or bad rating.
- i. Withdrawal from work or social activities.
- j. Mood and personality changes, including apathy and depression.

During the later stages of the disease, patients begin to lose the ability to control motor functions such as swallowing, or lose control of their bowels and bladder. They eventually lose the ability to recognize family members and to speak. As the disease progresses it begins to affect a person's emotions and behavior and they develop symptoms like aggression, agitation, depression, difficulty sleeping.

### **ALZHEIMER THERAPY**

Alzheimer's disease has yet to be cured, besides that there are no drugs that have effective outcomes for Alzheimer's patients. These drugs only reduce the progression of Alzheimer's disease so that they only provide a sense of calm for the patient, thereby reducing changes in emotions and behavior in everyday life.

Therapy that can be given to Alzheimer's patients is pharmacological therapy with the use of drugs and non-pharmacological therapy. Pharmacological therapy in Alzheimer's patients is focused on three domains: maintaining cognitive function, behavior and psychiatric symptoms. While non-pharmacological therapy is carried out to maintain cognitive function that still exists with various kinds of activity programs that can be given, including relaxation therapy and physical exercises to nourish the brain, as well as brain exercises.

#### Non-pharmacological therapy

Is a way of therapy using approaches other than drugs. Non-pharmacological therapy is often used with the goal of maintaining or improving cognitive function, ability to

perform daily activities, or overall quality of life. They can also be used with the aim of reducing behavioral symptoms such as depression, apathy, wandering, sleep disturbances. Nonpharmacological therapies are needed to better evaluate their effectiveness in everyday life (Alzheimer's Association, 2015). The basic principles in the treatment of patients with Alzheimer's include: Activities that include activities and patient rehabilitation environment. The environment in question is the family and community environment as well as the natural environment. In the context of activities in patients include creative activities such as sports, consistent daily activities. In the context of the environment which includes the family and community is to use a gentle approach to patients, empathize with patients, and in the context of the natural environment is to provide a safe and comfortable environment.

#### Pharmacological Therapy

Pharmacological treatment is a method of therapy using drugs to slow or stop a disease or treat its symptoms. The effectiveness of this drug varies from person to person. However, there are no currently available treatments for Alzheimer's disease, until recently the drugs only slowed or stopped the damage to the neurons that cause Alzheimer's symptoms and ultimately make the disease fatal. The types of drugs that are usually prescribed by doctors for Alzheimer's disease are rivastigmine, galantamine, donepezil, and memantine. These four drugs can relieve symptoms of dementia by increasing chemical levels and activity in the brain (Alodokter Team, 2015). Rivastigmine, galantamine, and donepezil are usually used to treat Alzheimer's disease with early to moderate levels of symptoms. Meanwhile, memantine is usually prescribed for Alzheimer's sufferers with intermediate stage symptoms who cannot take other medicines. Memantine can also be prescribed for Alzheimer's sufferers with symptoms that have entered the final stages (Alodokter Team, 2015).

#### **Application of Communicative Language Therapy in Patients with Alzheimer's Dementia**

1. **Evaluation of Communication:** The first step in communicative language therapy is to evaluate the patient's communication. The therapist team will assess the patient's language skills, understanding, and social engagement. By understanding the level of difficulty experienced by the patient, the therapist can design an appropriate therapy program.
2. **Language Stimulation:** Communicative language therapy uses a variety of language stimulation techniques to encourage the patient to communicate. This can include using simple words, short sentences, and clear speech acts. The therapist may also use visual media, such as pictures or objects, to help generate memories and facilitate communication.
3. **Memory Exercise:** Alzheimer's dementia often causes memory impairment in patients. Therefore, communicative language therapy also includes memory exercises aimed at strengthening the patient's memory. This exercise could involve using picture cards, word games, or everyday memory-inducing activities, such as saying the names of family members.
4. **Nonverbal Communication:** Communicative language therapy also teaches nonverbal communication as an alternative in interacting. Gestures, facial expressions, and touch can be used to convey emotions and needs without words. The therapist will train the patient and family to understand and respond effectively to nonverbal communication.
5. **Family support:** Family and close people play an important role in communicative language therapy in patients with Alzheimer's dementia. They need to be actively involved in the therapy process and provide emotional support to patients. Families can also learn communication techniques and strategies recommended by therapists

to help facilitate better interactions with patients. Strong family support can help patients feel heard, understood, and emotionally connected.

6. **Supportive Environment:** It is important to create an environment that supports communication for patients with Alzheimer's dementia. This can include setting up a quiet room, using adequate lighting, and eliminating distractions that could distract the patient. In addition, it is also important to allow enough time for the patient to respond and not rush the communication.

7. **Consistency and Simplicity:** Patients with Alzheimer's dementia usually have difficulty with complex information or too many stimuli. Therefore, communicative language therapy emphasizes consistency and simplicity in communication. Using short sentences, repeating important information, and avoiding irrelevant distractions can help patients understand and respond better.

### **Benefits of Communicative Language Therapy in Patients with Alzheimer's Dementia**

The application of communicative language therapy in patients with Alzheimer's dementia can provide several benefits, including:

1. **Improving Communication Skills:** This therapy helps patients use their existing communication skills and improve interactions with people around them. This can reduce frustration and improve the patient's quality of life.

2. **Helps Reduce Anxiety and Depression:** Patients with Alzheimer's dementia often experience anxiety and depression due to difficulty communicating. Communicative language therapy can help reduce levels of anxiety and depression by providing a more effective means of interaction.

3. **Increase Social Involvement:** By improving communication skills, patients can be more actively involved in social activities and maintain relationships with those closest to them. It can provide important emotional support in dealing with Alzheimer's disease.

4. **Improve Quality of Life:** Communicative language therapy can provide a significant improvement in the quality of life of patients with Alzheimer's dementia. The ability to communicate with others and feel heard and understood can lead to feelings of satisfaction and happiness.

### **Conclusion**

Communicative language therapy is an approach used to help individuals with Alzheimer's dementia maintain and improve their communication skills. This therapy involves using communication strategies that are mindful of individual needs and circumstances. Communicative language therapy can help reduce the stress and frustration that individuals with Alzheimer's dementia experience when they encounter difficulties in communicating. By helping them express their thoughts, feelings and needs, this therapy improves their quality of life and overall satisfaction. Communicative language therapy involves the use of both nonverbal and verbal methods. Nonverbal methods include using gestures, facial expressions, and eye contact to help understand and convey messages. The verbal method involves using words, repetition, and simple questions to help stimulate memory and increase understanding. Communicative language therapy also involves the family and nurses as partners in the treatment process. They are involved in learning effective communication strategies and are given support in applying these techniques in everyday interactions. Communicative language therapy does not only focus on aspects of communication, but also involves cognitive and emotional stimulation. Through interactions that focus on talk, games, music, and activities that engage memory, this therapy can help maintain the cognitive and emotional fitness of individuals with Alzheimer's dementia. Although communicative language therapy

can provide significant benefits for individuals with Alzheimer's dementia, changes in communication skills usually occur slowly and the effects can vary between individuals. It is important to start therapy early and adapt it according to changes in the individual's communication skills. Communicative language therapy is a valuable approach in helping individuals with Alzheimer's dementia maintain and improve their communication skills. This therapy involves using communication strategies that are tailored to individual needs and circumstances, involving family and caregivers, and paying attention to cognitive and emotional aspects.