

# Art Therapy as a Complementary Treatment to Address Psychosocial Wellbeing of Aphasia Patients

Lindsey Ahn<sup>1</sup>, Melissa Robin<sup>#</sup> and Rosemari Nam<sup>#</sup>

<sup>1</sup> Bergen Technical High School, Teterboro, NJ, USA

<sup>#</sup>Advisor

## What is Aphasia?

Aphasia is a neurological disorder caused by damage to areas on the left cerebral hemisphere, which is responsible for language processing. It is a “malfunction in the use of language” and this includes expression and comprehension (Nyström, 2006). Aphasia can result from traumatic brain injuries like stroke, head trauma, or brain tumor, or from progressive illnesses such as dysarthria, apraxia, apraxia of speech, dysphagia, and dementia (Mayo Clinic, 2022). The disorder is run by a linguistic impairment due to “a brain lesion such as emboli, haemorrhagia, oedema, trauma or tumor” (Nyström, 2006). The damage to the brain cells and their environment creates a deficient blood supply, which normally carries essential nutrients and oxygen, to the areas in the brain that process language (NIDCD, 2015).

This disorder is characterized by an impairment in language expression, including reading, writing, or speaking; it affects the mental processes involved in converting thought to language and the translation of grammar or symbols that are heard or read (Johns Hopkins Medicine). Patients with aphasia thus have trouble interpreting auditory stimuli, visual stimuli, writing, and arbitrary symbols. The most common symptom is the inability to communicate effectively and express thoughts (Fontoura et al., 2012). Due to the varied nature and extent of brain damage, aphasia’s symptoms are wide-ranging among patients, depending on which area of the brain was damaged, how the trauma occurred, and the immediacy of the treatment received (NIDCD, 2015). Brain damage in any form, whether it is from a head injury or a neurodegenerative illness, often causes aphasia along with other cognitive problems. According to the National Aphasia Association, aphasia currently afflicts approximately 1 million people in the United States, with nearly 180,000 new patients every year, and is most prevalent among the middle and the old age (Mayo Clinic, 2022).

Because language and its direct associations with the brain is a generally abstract subject, particular areas of language are better or worse understood in some individuals than in others, causing variations within the disorder. The behavior of the disorder is also heavily impacted by the region of the brain that is damaged and by the environment and quality of treatment after acquiring the disorder (NIDCD, 2015).

## Types of Aphasia

According to the National Aphasia Association, the two most common types of aphasia are Wernicke’s Aphasia (“fluent aphasia”) and Broca’s Aphasia (“non-fluent aphasia”). Wernicke’s aphasia is typically characterized by damage to the temporal lobe of the brain (NIDCD, 2015). This type is referred to as “fluent” aphasia because patients can produce speech without much difficulty but are unable to grasp the meaning of the spoken words. Although it is referred to as “fluent aphasia,” speech is nevertheless far from normal as the patient often creates long sentences that have nonsensical words or phrases that are difficult to follow. They also have a hard time reading and writing, as their sentences do not connect coherently (NICD, 2015).

Broca's aphasia is characterized by damage to the frontal lobe of the brain (NIDCD, 2015). This type is referred to as "non-fluent aphasia" because patients are only able to produce sound (instead of words or sentences) even with significant effort. The patient may also only be able to speak in short utterances with a limited vocabulary, and the formation of sounds is often clumsy and laborious (National Aphasia Association). In addition, patients may show right-sided weakness or become paralyzed in certain limbs because of the damage to the frontal lobe that controls motor function. Broca's aphasia patients may be able to understand speech and read well, but there are limitations to writing and expressing themselves (NIDCD, 2015).

Less common aphasias are mixed non-fluent aphasia, anomic aphasia, and global aphasia. Mixed non-fluent aphasia is similar to Broca's aphasia in that the patient is nonfluent but has additional difficulty in understanding speech and ability to read and write. A less severe aphasia is anomic aphasia with which patients are left with a continuous inability to supply words, particularly nouns and verbs. They can understand speech and are fluent in grammar but may have trouble finding words in writing. Global aphasia is the most severe form of aphasia as patients cannot produce logical sentences and can only provide little or no spoken language; the ability to read and write is also severely impaired. Finally, aphasia is such a complex disorder that it has various other combinations of deficits that are patient specific and do not fit neatly into these categories. Some of the components of a complex aphasia syndrome may also occur in isolation (National Aphasia Association).

## **Traditional Treatments for Aphasia**

Following a brain injury, striking changes occur in the brain to help it recover. As a result, people with aphasia see improvements in their language and communication abilities in the first few months, even without treatment (NIDCD, 2015). However, in many cases, some aspects of aphasia remain following this initial recovery period. In these instances, speech-language therapy is used to help patients regain their ability to communicate; this form of treatment is also the most popular for individuals with aphasia (Berthier, 2005). Traditional speech and language therapy aims to improve the patient's ability to communicate by encouraging remaining language abilities, restoring earlier language abilities, and teaching other ways of communicating such as gestures, pictures, or use of electronic devices (Fried-Oken et al., 2019). Speech and language therapists work one-on-one with patients to meet individualized goals and recover normal speech and understanding. Though less common, group therapy or conversation therapy offers the opportunity to use new communication skills in a small-group setting (Simmons-Mackie et al., 2014).

Recent technologies and research have focused on providing direct treatment of aphasia and its physical symptoms. The use of speech-generating applications on mobile devices, for example, provides an alternative way to communicate for those who have difficulty using spoken language. For instance, augmentative and alternative communication and voice products or technologies such as applications help mitigate the impairments of natural speech production and allow patients to communicate through the use of voice restoration technologies or through communication that is not oral speech but by other forms such as symbols, pictures, gestures, and other non technological assistive products (Flaubert et al., 2019).

Researchers are also exploring drug therapy as a potential form of treatment: some studies are experimenting with drugs that affect our brain's neurotransmitters and deciding if drugs and speech-language therapy can improve the communication abilities of aphasia patients (NIDCD, 2015). Other research is centered around using functional magnetic resonance imaging (fMRI) to discover how exactly language is processed and transferred in a healthy versus a damaged brain to understand the process of recovery (Whitten, 2012). This research is valuable; however, a recurring theme among most prevalent research in the speech pathology and aphasia field is still the sole purpose of alleviating communication deficits.

Though these methods are excellent in recovering the functional capacity of communication, there is a significant lack of effort to incorporate methods to address the mental trauma that the aphasia patient may face.

## Uniqueness of Aphasia

Aphasia is a unique disorder and is significantly different from other neurodegenerative disorders such as dementia or Alzheimer's disease (the most popular branch of dementia). Dementia is a condition involving impairments on cognitive functions such as acquired memory, judgment, orientation, languages, etc., which also affects the ability to execute daily tasks (Yokoi & Okamura, 2012). As self-awareness decreases in dementia patients, they are unable to understand themselves and the world around them (Yokoi & Okamura, 2012). While aphasia is a cognitive impairment, it is in the language area of the brain and does not affect intelligence or problem solving skills (National Aphasia Organization). Aphasia patients can establish human relationships because they are able to psychologically distinguish themselves from others and recognize self-intention, self-desire, and self-situation.

Anosognosia is defined as the “lack of insight” and is a symptom of a severe mental illness that impairs understanding of a patient’s illness in which someone is unaware or cannot accurately perceive his or her own condition (Treatment Advocacy Center). “Impaired awareness of the presence or degree of general cognitive and functional deficits, or of the diagnosis itself, often referred to as ‘anosognosia,’ is seen in up to 80% of people with Alzheimer’s disease” (Huntley et al., 2021). Aphasia is different, however, in that the patients are fully conscious of their communication impairment. Therefore, mental health should be held in a greater stance, and therapy programs should not be assumed as equivalent. In a study conducted evaluating the prevalence of depression in dementia patients, 12.4% of the 1,612 participants studied had depression (Andreasen & Lönnroos, et. al 2013). Still, “the incidence of depression after aphasia is estimated to be 62% to 70%” (Worrall et al., 2016).

Aphasia patients have a much higher incidence of depression than dementia patients because they are fully aware of their condition. As previously mentioned, 80% of people with Alzheimer’s disease (AD) have anosognosia. If the majority of patients with AD are not aware of having AD in the first place, they are less likely to feel negative emotions. However, aphasia does not affect thinking or impair intelligence (ASHA). When aphasia patients have lived a regular life and suddenly lose their ability to communicate, the sense of loss is more detrimental, and mental health care is much more urgent. Accordingly, aphasia patients have a high chance of losing their independence and sense of identity. In short, they cannot express their thoughts clearly, but are still just as intelligent. Aphasia is a unique disorder and should be treated as such. The unique circumstances that each patient is aware of and goes through can lead to depression, anxiety, and other mental health disorders.

## Loss of Identity

“For communication to have meaning it must have a life. It must transcend ‘you and me’ and become ‘us’. If I truly communicate, I see in you a life that is not me and partake of it” (Prather 113).

One of the highest human functions is the ability to recognize oneself and develop a sense of identity. Identity is first an important factor that influences our actions, thoughts, and interventions within the context of others (Duchan et al., 1999; Wertsch, 1991). When language is impaired, there must be a renegotiation of identity (Shadden, 2005). Language becomes a crucial factor in forming our identity as it is the primary form of social interaction.

However, the form of identity in terms of recognition from others can fail (Taylor, 1994), which can lead to destructive thoughts, inferiority complexes, and “devaluation by society” (Shadden, 2005). Due to these obstacles in communication, medical professionals need to take into account a matter of intelligence and self-esteem that must be addressed with professionals (Kovarsky et al., 2003), as the idea of “therapy” alone has

been “historically... associated with incompetence; that is, ‘sick’ roles” (Shadden, 2005) and “Both misrecognition and nonrecognition can lead to internalising an identity as inferior” (Duchan et al., 1999; Gee, 1999; Taylor, 1994). Therefore, aphasia patients’ sense of self worth and identity can be immensely transformed in negative ways, such as deterring participation in social settings and withdrawing from the social sphere (Shadden, 2005).

When recovering from aphasia, professionals focus mostly on language as it typically comes first. However, the focus on just language can have detrimental effects (Shadden, 2005). Although language is important, focusing on just language puts an emphasis on the client’s language incompetence that may become the client’s identity (Simmons-Mackie & Damico, 1999). To prevent this from happening, renegotiating identity and discussing social interactions and self must be directed as well (Kovarsky et al., 2003).

The renegotiation of identity also affects the mental health of aphasia patients. As identity is lost, it is likely that the patient questions themselves and their standing in society. After all, identity is correlated with communication in societal settings, and when that is no longer attainable, identity is lost; when identity is lost, aphasia patients are vulnerable and their mental health is fragile.

## **Lack of Specialized Care for Aphasia Patients in Healthcare Settings**

Aphasia patients experience difficulty even when seeking out medical professionals or hospitals. A 2013 study showed that there was a communication barrier between traditional hospital settings and aphasia patients, as medical professionals often excluded the caregiver from communication, showing that the hospital system does not understand patients with communication disorders (Hemsley et al., 2013). In other studies, it was shown that the relationship aspect of care was particularly important to aphasia patients. It was important for medical professionals to regard the patient and recognize their intellectual capacity and ability. However, many aphasia patients believe that there is a general lack of respect towards themselves by the outside world (Tomkins et al., 2013). Aphasia patients will need a means for processing their sudden life changes. Above all, there is a great need for a recognition of aphasia patients and their unique needs.

## **Mental Health of Aphasia Patients**

“It is clear, however, that the figurative state of voicelessness experienced by persons with aphasia is often more destructive than the literal one” (Shadden, 2005).

When identity is lost, it is difficult to recognize oneself. A regular symptom of “coping with post-stroke effects such as aphasia” as well as renegotiation of identity has been depression (Nyström, 2006). Aphasia patients with depression suffer from “reduced self-esteem”, altered self-image, motivation, “functional independence”, confidence, (Währborg, 1991) as “failure to participate in the community due to impaired verbal ability often results in feelings of loneliness and isolation” (Nyström, 2006). After a stroke occurs, the person’s quality of life is vulnerable as depression, anxiety, and other psychological stressors may play a role in stroke recovery (Lincoln et al., 2012). Although aphasia targets the existentiality of these patients, they are excluded from research that discusses depression (Åström et al., 1993).

The drastic changes that accompany aphasia considering the patient’s circumstances may cause great distress and anxiety. The patient would likely face trouble pursuing a vocation, maintaining relationships, and be more prone to social isolation (Worall, 2016). Furthermore, communication with family members and individuals in the patient’s social network will most likely be strained due to aphasia’s symptoms. As frustrations mount when simple communication cannot be established, many patients may feel deep despair: in fact, the incidence of depression for stroke survivors is 31% (Clarke & Forster, 2015) and the prevalence of depression after stroke is estimated to be 70% (Kauhanen et al., 2000). An estimated 44% of aphasia patients

also experience anxiety (Morris et al., 2017). The decline of mental health within aphasia patients is an important but underrepresented problem. In addition, their limited functional abilities may restrict their ability to access mental health services and support groups that can help their condition.

The psychological distress that aphasia patients experience after their diagnosis is well documented. In a 2010 study, 3-to-6 months post-stroke distress was identified to be caused by psychological and social factors such as loneliness and low satisfaction with one's social network (Hilari et al., 2010). Given the extensive literature (Ozbay et al., 2007) stressing the importance of social connection for the patient's psychosocial adjustment to their new circumstances, those who do not have a strong social support system have a greater risk of falling into depression (Hilari et al., 2010). Therefore, the ability to recover from a stroke depends not only on traditional speech and language therapy but also on ways that address the patient's emotional needs.

The gap in mental health support for aphasia patients is recognized by speech and language pathologists or therapists themselves, who claim that, while they are cognizant of their patients' need for emotional support, they often feel unqualified or inadequately equipped to provide mental health support (Northcott et al., 2016). In a UK survey of speech and language therapists, only 42% felt confident in addressing the psychological needs of their clients. A majority of therapists feel that they are under-skilled and lack training to address the client's needs (Northcott et al., 2016). Because speech and language therapists do not specialize in treating or addressing the patient's psychological needs, the best that the therapist can do is to refer patients to other mental health professionals. However, aphasia patients find it difficult to convey their inner thoughts to the psychotherapists due to the communication barriers that are present (Northcott et al., 2016). In order to alleviate these communication barriers, other, unconventional methods of communication such as art or body gestures are strongly recommended to implement into the therapy sessions.

Overall, there was a lack of consensus on the proper scope of the speech and language therapist role. Many expressed a sense of conflict, acknowledging the value of spending time to address the patient's psychological well-being yet, at the same time, feeling uneasy about deviating from "direct speech and language therapy" work. Unsurprisingly, such therapists face many barriers to addressing the psychosocial well-being of their clients: exist emotionally challenging nature of listening to devastating or traumatic experiences of aphasia patients, particularly for those who feel unsupported, caseload and time pressures, attitudes of senior managers and commissioners, difficulties measuring and documenting a more "fluid" psychosocial work, and the complexity of the needs and backgrounds of some patients (Ryan et al., 2017). In sum, speech and language therapy programs are currently underprepared in addressing the mental health needs of aphasia patients.

## Accessibility of Services

There have been efforts to address this issue. In 2016, researcher Brooke Ryan devised and proposed the Aphasia Action, Success, and Knowledge Programme, an early intervention program for aphasia patients undergoing stroke treatment. Including psychological interventions in addition to speech and language therapy, this program has seen early success with its first implementation, improving the quality of life and the general mood of aphasia patients (Ryan et al., 2017). However, this method may be costly. Speech and language therapy is expensive enough, as the national per-hour average price for people with no insurance costs anywhere from 100 to 250 dollars (Elemey, 2021). An additional cost of 100 to 200 dollars for psychotherapy (150 to 250 dollars in big metro areas) (Hayes, 2021) ends up being anywhere from 200 to 500 dollars worth per session of each therapy. When both therapy types are crucial but treatments are too expensive and therefore inaccessible to some patients (who are low income or cannot afford both treatments), they miss out on significant aids. Aphasia patients who do not have the means to pursue an intensive intervention program to regain function and maintain mental health may choose to forgo mental health treatment altogether. When devising an effective therapeutic method for aphasia patients, it is important to consider all their multifarious circumstances.

The most common practical concerns for inaccessibility of mental health treatments is the cost of them, the location (if they have to travel far), and the lack of overall specialists in the area, whether that be the rehabilitation center or the hospital (Ryan & Bohan, 2019). However, beyond these practical concerns, there are preconceived ideas that inhibit patients from seeking help.

According to a study conducted in 2018, SLPs spoke upon different “help-seeking” factors from aphasia patients. They suggested that pre-existing notions concerning mental health therapy and the stigmas surrounding this topic reserved patients from seeking help (Ryan & Bohan, 2019). Mental health was considered a taboo topic as it is still stigmatized in modern society as well. SLPs also acknowledged that the communication impediment further hindered the patients’ abilities to seek help. As patients are unable to speak their mind fully, many mood problems become much harder to detect (Ryan & Bohan, 2019). Not only is mental health treatment stigmatized, but the speech impediment makes help-seeking even harder for individuals with aphasia. Knowing this, it is important to prioritize the psychosocial wellbeing of aphasia patients and make mental health referrals more common.

## **Anecdotes of SLPs and Mental Health Professionals**

Speech and Language pathologists can have a direct (or indirect) influence on the treatment and help-seeking attitudes of aphasia patients. Many SLPs acknowledge that aphasia patients are at risk of other psychological illnesses (Sekhon et al., 2015) and also recognize their role in allowing patients to access other support services (Brown et al., 2011; Foster et al., 2016). SLPs’ perspectives on the factors that influence the accessibilities of mental health services for aphasia patients and how they currently support help-seeking actions for mental health in aphasia patients are valuable insights.

There was a study conducted in 2018 asking SLPs a variety of different “themes” or questions, and one of them was “SLPs as skilled helpers for mood management” (Ryan & Bohan, 2019). SLPs were aware of a high incidence of depression in aphasia patients and the majority of them used a screening tool. However, there was no consistent tool, and not many SLPs had an authorized program in place.

Aphasia patients are able to form rapport with SLPs, and this rapport is unparalleled to the relationships with other professionals (Ryan & Bohan, 2019). SLP 16 says that “We can understand what they’re trying to say and what they’re thinking much more easily than someone who’s not used to communication problems” (Ryan & Bohan, 2019). Many of the SLPs thought that they should also address psychosocial aspects because aphasia patients did not often have access to mental health support or it was unattainable. The majority of SLPs are unsatisfied with speech pathology because it does not often dig into the details of psychosocial wellbeing as much. SLP 6 says that “I feel unsatisfied because it tends to be just a screening for depression and nothing else, depression/ anxiety tick the box. And not really discuss the adjustment and the impact even underconfidence, the changes in identity, all of that I think is still within the speech pathology realm that we have to do because the service is not there yet” (Ryan & Bohan, 2019). They also feel as though there are many complications with interventions of patient mental health. As much as they want to help, they have to recognize their limits in that they are not trained psychologists and are not professionals in the mental health field. This area is viewed as controversial because of the question “how much is too much?” and “are they overstepping the boundaries?”

Having access to a wide range of professionals is essential for aphasia patients. The post-stroke and mental health services must be more accessible for aphasia patients because patients are prone to decline in psychosocial wellbeing. Bridging the gap between mental health and speech therapy is needed to improve the quality of life in aphasia patients and provide holistic services.

## **Art Therapy**

Although speech and language are one of the most essential social skills, art is an alternative way to convey ideas and emotions. While not conclusive, the therapeutic application of art has been well-documented: an interest in art therapy first developed in the early 20th century, when psychiatrists used art as a way to diagnose institutionalized patients (Adelphi, 2017). However, as time went on, professionals were inspired by the ideas of psychoanalysts Sigmund Freud and Carl Jung. Freud had a deep belief in the connection of art to one's unconscious while Jung believed that art can provide insight into the "collective unconscious," a universal, cross-cultured symbolic language that all humans possessed (Gussack, 2021). Then, art therapy took off in earnest after the formation of the American Art Therapy Association in 1966, leading to effective art therapy applications for numerous disorders and conditions, such as combat-related PTSD, cancer, childhood trauma, and other mental health disorders. One of the limitations underlying art therapy studies is that the degree of recovery and therapeutic effects are widely varied (Campbell et al., 2018). The effectiveness of art therapy must be established extensively and documented within each disorder or condition.

Nonetheless, art therapy, which involves mutual engagement between the client and the therapist through the artwork, has real benefits and can greatly improve the patient's quality of life. During the process, therapists are able to better understand the patient's situation, and the patient is able to articulate specific areas of experience that cannot be expressed verbally. "Art therapy helps people experience increased well-being through a number of creative pathways that uniquely illuminate purpose and meaning and increase positive emotions and engagement." (Wilkinson & Chilton, 2013). Instead of measuring happiness as it is intangible, researchers have shifted to measuring well-being. Not only does art therapy help boost subjective well-being, but also overall life satisfaction (Diener, 1994), as well as psychological well-being in terms of relationships, meaning, growth, and societal relations (Ryff, 1989). Not only does art therapy promote creativity, healing, and long-term satisfaction, but it also helps strengthen a sense of self and motivation in a patient (Rajalin et al., 2021). When patients have an emotional, behavioral, or a cognitive deficit, art therapy helps patients build relationships and maintain a better sense of control in what they express, reducing anxiety and stress while allowing for a greater capacity of empathy (Kline, 2016).

Art therapist and researcher Debbie Michaels recounts her experience when she hosted an NHS art therapy service in a community rehabilitation center, "The enquiry for art therapy opened up a space for giving some form and meaning to the inarticulate experience of stroke; linking mind and body, self and other, past and present in a more coherent narrative" (Michaels, 2010). With art therapy, patients are able to experience an improved quality of life, whether that be an improved standard of health or in terms of their comfort and happiness (Stuckey & Nobel, 2010). The overarching purpose of art therapy can have technical aspects as well, but the most important part of it is to enable self-growth within the patient in an environment that is safe and facilitating. It can also provide an effective platform for communication between patients and therapists, as the therapist is better able to understand the needs of the individual and thus come up with a more customized therapy plan (Guay, 2018).

Drawing and creating art allows people to convey messages that cannot be expressed through words (Johnson, 1999). The lack of need for words is also the reason art therapy for children and people struggling with trauma is extremely effective. Art therapists are able to identify problems or achieve a better sense of a patient's experience because of the messages expressed through art (Wadson, 205). Especially for trauma patients, it is at once challenging and distressing to relive and describe what they have gone through. Accordingly, art therapy is critical when traditional forms of therapy (mostly through language) are not attainable. In addition, continued art therapy treatment may help the patient establish their sense of self by exploring their artwork (White, 2022).

Although there are some programs that have been designed, they have not yet been implemented on a widespread scale especially for aphasia patients. One representative program is the Communicative Drawing Program, which is "a 10-step approach to teaching people with aphasia (PWA) who have severely restricted

ability to communicate needs, thoughts, questions, and stories through speech and writing, to communicate instead through drawing” (Parrish, 2014). This program notes the difficulty of drawing effectively because one needs to have an “internal representation” of the intended message, understanding of symbolic meaning, use of images, and the ability to be flexible when carrying out communication in different environments with different people (Sandberg et al., 2021). Yet, due to the inconclusive nature of some related studies and a lack of an effective means to measure objective improvement in aphasia patients, there is currently a general reservation about rigorously pursuing the implementation of such art therapy programs. Although this study is a great framework for how art therapy should be administered, there are not many practical programs ready to be implemented in the real world.

## A New Kind of Complementary Art Therapy Program

As established above, there currently are official treatment plans for aphasia patients. Speech and language therapy is developing constantly with new methods. However, there is a hesitancy to implement art therapy programs due to variability of results and difficulty quantifying the effectiveness of the individual therapies. Furthermore, individual sessions with therapists, particularly psychologists and psychotherapists, will be resource intensive and inaccessible to those who may not have the means to access both types of treatments.

My paper proposes an alternative system in which aphasia patients can get both functional improvement and better their mental health in an affordable way: a solution to this problem is to create a complementary art program that can be administered at aphasia centers. A key factor in the program will be an efficient management of resources. My art therapy program will be necessarily a group activity and will be run by a licensed art therapist with facilitators who may be trained volunteers or other art therapists. Group sessions are also recommended to help alleviate the social isolation felt by the patients and to save costs on operations. This will be possible because there will be set lesson plans with predetermined images and designs that all of the participants can follow at the same time. We will base our lessons on the Communicative Drawing Program, to provide functional, social, and mental treatment to aphasia patients. The modules and materials for each class will be set following the 10 steps outlined below in Figure 1.

The modules will be designed around steps and goals that were set by the Communicative Drawing Program and will be the basis of evaluation for therapists/facilitators. The material should be heavily tailored to comply with the steps and should be identifiable to facilitators. One interesting avenue that may be explored is the use of technology in application of the manuals. Though patients can work on pre-printed paper, the benefits of using digital technology for art needs to be explored (Parrish, 2014).

### Communicative Drawing Program: 10 Steps of approach

#### Step One: Basic Semantic-Conceptual Knowledge

- Identify 5 objects out of a field of 10 that fit into a select category

#### Step Two: Knowledge of Object Color Properties

- Apply the correct color choice to 9 objects

#### Step Three: Outline Pictures of Objects with Distinct Shape Properties

- Outline distinct items to 100% accuracy

#### Step Four: Copy Geometric Shapes

- Copy 3D shapes according to size, shape, and 3D aspects

#### Step Five: Complete Drawings with Missing External and Internal Features

- Identify missing elements of a picture and make the corrections

#### Step Six: Draw Objects with Characteristic Shapes from Memory



- Look at a picture of an item, then draw the object from memory
- Step Seven: Draw Objects to Command from Stored Representations
- Draw 10 named objects from stored memory
- Step Eight: Draw Objects in Subordinate Categories
- Draw 10 objects from each of 10 subordinate categories
- Step Nine: Generative Drawing: Animals and Modes of Transportation
- Draw 6-10 distinguishable items for each category
- Step Ten: Draw Cartoon Scenes
- Draw 1, 2, and 3 panel cartoon stories from memory
  - Identify the humor in the picture, copy the picture until recognizable, add in distinguishing features, recreate the picture again after brief exposure

**Figure 1.** Communicating Drawing Program: 10 Steps of approach to teach aphasia patients to regain former skills in communicating ideas and be able to express themselves (Maurer, 2015)

The art sessions with multiple patients should be overseen by a lead art therapist who will be observing patients. Facilitators will be trained on noting the reactions and behaviors of patients while reporting back to the lead art therapist who is overseeing the session. Facilitators should have a checklist for patients based on each step or module and record the patient's progress throughout the session. After the session, the art therapist may summarize the findings and discuss with speech and language therapists and develop a holistic view on the patient's overall mental health and condition. If the patient's mental health conditions are too severe, additional recommendations may be made for them to seek mental health services.

## Conclusion

Though speech and language is essential for the recovery of aphasia patients, not enough attention is being put forth to improve the mental health or psychosocial needs of the patients. Through this group art therapy program, aphasia centers may have a more complete picture of the difficulties that patients face. An additional problem this program will solve is the communication barriers between social workers or mental health professionals. Even if aphasia patients have access to mental health services, the efforts go to vain as the psychologist is not trained in speech pathology and patients cannot communicate with the psychologist. Taking into consideration the mental health barriers between aphasia patients and speech pathologists and the issues of communication for mental health professionals, this program helps bridge the gap between the two problems. Through the program, speech pathologists and art therapists are able to work together to target all aspects of aphasia and provide a more comprehensive support system for patients. I recommend that aphasia centers and researchers develop their understanding of the benefits of art therapy and explore the synergistic effects of traditional speech and language therapy with art therapy.

## Acknowledgments

I would like to thank my advisor for the valuable insight provided to me on this topic.

## References

Administrator. (n.d.). *Anosognosia*. Treatment Advocacy Center. Retrieved from <https://www.treatmentadvocacycenter.org/key->

issues/anosognosia#:~:text=Anosognosia%2C%20also%20called%20%22lack%20of,or%20do%20not%20seek%20treatment

American Speech-Language-Hearing Association. (2017). *Aphasia*. American Speech-Language-Hearing Association. Retrieved May 29, 2022, from <https://www.asha.org/public/speech/disorders/aphasia/>

Andreasen, P., Lönnroos, E., & von Euler-Chelpin, M. C. (2014). Prevalence of depression among older adults with dementia living in low-and middle-income countries: a cross-sectional study. *The European Journal of Public Health*, 24(1), 40-44. <https://doi.org/10.1093/eurpub/ckt014>

*Aphasia*. Johns Hopkins Medicine. (n.d.). Retrieved May 29, 2022, from <https://www.hopkinsmedicine.org/health/conditions-and-diseases/aphasia#:~:text=Aphasia%20is%20a%20language%20disorder,as%20a%20result%20of%20stroke>

Campbell, M., Decker, K. P., Kruk, K., & Deaver, S. P. (2016). Art therapy and cognitive processing therapy for combat-related PTSD: A randomized controlled trial. *Art therapy*, 33(4), 169-177. <https://doi.org/10.1080/07421656.2016.1226643>

Cruice, M., Worrall, L., Hickson, L., & Murison, R. (2003). Finding a focus for quality of life with aphasia: Social and emotional health, and psychological well-being. *Aphasiology*, 17(4), 333-353. <https://doi.org/10.1080/02687030244000707>

da Fontoura, D. R., de Carvalho Rodrigues, J., de Sá Carneiro, L. B., Monção, A. M., & de Salles, J. F. (2012). Rehabilitation of language in expressive aphasia: a literature review. *Dementia & Neuropsychologia*, 6(4), 223. 10.1590/S1980-57642012DN06040006

Fried-Oken, M., Mooney, A., & Peters, B. (2015). Supporting communication for patients with neurodegenerative disease. *NeuroRehabilitation*, 37(1), 69-87. <https://doi.org/10.3233/NRE-151241>

Guay, M. (2018). Impact of group art therapy on the quality of life for acquired brain injury survivors. *Art Therapy*, 35(3), 156-164. <https://doi.org/10.1080/07421656.2018.1527638>

Gussak, D., & Rosal, M. L. (2021). *The Wiley Handbook of Art therapy*. Wiley Blackwell.

Hemsley, B., Werninck, M., & Worrall, L. (2013). "That really shouldn't have happened": people with aphasia and their spouses narrate adverse events in hospital. *Aphasiology*, 27(6), 706-722. <https://doi.org/10.1080/02687038.2012.748181>

Hilari, K., Northcott, S., Roy, P., Marshall, J., Wiggins, R. D., Chataway, J., & Ames, D. (2010). Psychological distress after stroke and aphasia: The first six months. *Clinical Rehabilitation*, 24(2), 181-190. <https://doi.org/10.1177/0269215509346090>

*Home*. National Aphasia Association. (2022, January 24). <https://www.aphasia.org/>

*How dementia progresses*. Alzheimer's Society. (n.d.). <https://www.alzheimers.org.uk/about-dementia/symptoms-and-diagnosis/how-dementia-progresses#:~:text=The%20progression%20and%20stages%20of,progressing%20in%20%27three%20stages>

*How much does speech therapy cost in 2020? (averages)*. The Elemy Learning Studio. (2021, November 24). Retrieved May 29, 2022, from <https://www.elemy.com/studio/speech-therapy/costs/>

Huntley, J. D., Fleming, S. M., Mograbi, D. C., Bor, D., Naci, L., Owen, A. M., & Howard, R. (2021). Understanding Alzheimer's disease as a disorder of consciousness. *Alzheimer's & Dementia: Translational Research & Clinical Interventions*, 7(1), e12203. <https://doi.org/10.1002/trc2.12203>

Marianne Hayes Dec 22, & Hayes, M. (2021, December 22). *How much does therapy cost?* Northwestern Mutual. Retrieved May 29, 2022, from <https://www.northwesternmutual.com/life-and-money/how-much-does-therapy-cost-and-how-do-you-pay-for-it/>

Maurer, Jordan (2015). *Communicative Drawing Program*. [PowerPoint slides]. <https://prezi.com/ht3ps1aklb4k/communicative-drawing-program/>

Mayo Foundation for Medical Education and Research. (2022, March 31). *Aphasia*. Mayo Clinic. <https://www.mayoclinic.org/diseases-conditions/aphasia/symptoms-causes/syc-20369518>

Michaels, D. (2010). A space for linking: art therapy and stroke rehabilitation. *International Journal of Art Therapy*, 15(2), 65-74. <https://doi.org/10.1080/02687038.2013.811211>

Northcott, S., Simpson, A., Moss, B., Ahmed, N., & Hilari, K. (2016). How do speech-and-language therapists address the psychosocial well-being of people with aphasia? results of a UK online survey. *International Journal of Language & Communication Disorders*, 52(3), 356–373. <https://doi.org/10.1111/1460-6984.12278>

Nyström, M. (2006). Aphasia—an existential loneliness: a study on the loss of the world of symbols. *International Journal of Qualitative Studies on Health and Well-being*, 1(1), 38-49.

Parrish, Jessica, "Art and Aphasia: A Literary Review and Exhibition" (2014). Honors Theses. 2445. [https://scholarworks.wmich.edu/honors\\_theses/2445](https://scholarworks.wmich.edu/honors_theses/2445)

Ryan, B., Bohan, J., & Kneebone, I. (2019). Help-seeking and people with aphasia who have mood problems after stroke: perspectives of speech–language pathologists. *International Journal of Language & Communication Disorders*, 54(5), 779-793. <https://doi.org/10.1111/1460-6984.1247>

Sandberg, C. W., Nadermann, K., Parker, L., Kubat, A. M., & Conyers, L. M. (2021). Counseling in aphasia: Information and strategies for speech-language pathologists. *American journal of speech-language pathology*, 30(6), 2337-2349. [https://doi.org/10.1044/2021\\_AJSLP-20-00312](https://doi.org/10.1044/2021_AJSLP-20-00312)

Sekhon, J. K., Douglas, J., & Rose, M. L. (2015). Current Australian speech-language pathology practice in addressing psychological well-being in people with aphasia after stroke. *International journal of speech-language pathology*, 17(3), 252-262. <https://doi.org/10.3109/17549507.2015.1024170>

Shadden, B. (2005). Aphasia as identity theft: Theory and practice. *Aphasiology*, 19(3-5), 211-223.

- Kline, T. (2016). Art therapy for individuals with traumatic brain injury: A comprehensive neurorehabilitation-informed approach to treatment. *Art Therapy, 33*(2), 67-73.  
<https://doi.org/10.1080/17482620500501883>
- Simmons-Mackie, N., & Damico, J. S. (2011). Counseling and aphasia treatment: Missed opportunities. *Topics in Language Disorders, 31*(4), 336-351. <https://doi.org/10.1097/TLD.0b013e318234ea9f>
- Simmons-Mackie, N., Savage, M. C., & Worrall, L. (2014). Conversation therapy for aphasia: a qualitative review of the literature. *International Journal of Language & Communication Disorders, 49*(5), 511-526.  
<https://doi.org/10.1111/1460-6984.12097>
- Stuckey, H. L., & Nobel, J. (2010). The connection between art, healing, and public health: A review of current literature. *American journal of public health, 100*(2), 254-263.  
<https://doi.org/10.2105/AJPH.2008.156497>
- The history of art therapy*. Adelphi Psych Medicine Clinic. (2017, July 5). Retrieved May 29, 2022, from <https://adelphipsych.sg/the-history-of-art-therapy/>
- Tomkins, B., Siyambalapitiya, S., & Worrall, L. (2013). What do people with aphasia think about their health care? Factors influencing satisfaction and dissatisfaction. *Aphasiology, 27*(8), 972-991.  
<https://doi.org/10.1080/02687038.2013.811211>
- Vaartio-Rajalin, H., Santamäki-Fischer, R., Jokisalo, P., & Fagerström, L. (2021). Art making and expressive art therapy in adult health and nursing care: A scoping review. *International journal of nursing sciences, 8*(1), 102-119. <https://doi.org/10.1016/j.ijnss.2020.09.011>
- Wadeson, H. (2010). *Art psychotherapy*. John Wiley & Sons.
- White, T. (2022, May 19). *Art therapy for trauma: Here's how it can help*. Psych Central. Retrieved May 29, 2022, from <https://psychcentral.com/ptsd/art-therapy-for-trauma#recap>
- Whitten LA. Functional Magnetic Resonance Imaging (fMRI): An Invaluable Tool in Translational Neuroscience [Internet]. Research Triangle Park (NC): RTI Press; 2012 Dec.
- Wilkinson, R. A., & Chilton, G. (2013). Positive art therapy: Linking positive psychology to art therapy theory, practice, and research. *Art Therapy, 30*(1), 4-11. <https://doi.org/10.1080/07421656.2013.757513>
- Worrall, L., Ryan, B., Hudson, K., Kneebone, I., Simmons-Mackie, N., Khan, A., ... & Rose, M. (2016). Reducing the psychosocial impact of aphasia on mood and quality of life in people with aphasia and the impact of caregiving in family members through the Aphasia Action Success Knowledge (Aphasia ASK) program: study protocol for a randomized controlled trial. *Trials, 17*(1), 1-7. <https://doi.org/10.1186/s13063-016-1257-9>
- U.S. Department of Health and Human Services. (2015, December). *What is aphasia? - types, causes and treatment*. National Institute of Deafness and Other Communication Disorders. Retrieved May 29, 2022, from <https://www.nidcd.nih.gov/health/aphasia>

U.S. Department of Health and Human Services. (n.d.). *Aphasia*. National Institute of Neurological Disorders and Stroke. Retrieved May 29, 2022, from <https://www.ninds.nih.gov/health-information/disorders/aphasia#:~:text=Aphasia%20is%20a%20neurological%20disorder,location%20of%20brain%20tissue%20involved>.

Yokoi, T., & Okamura, H. (2013). Why do dementia patients become unable to lead a daily life with decreasing cognitive function?. *Dementia*, *12*(5), 551-568. <https://doi.org/10.1177/1471301211435193>