Acquired Communication Disorders
Aphasia and the role of Speech Pathologists

Dr. Alexandros Argyriadis¹
¹Assistant Professor, SEN, Frederick University

Abstract: One of the most often disorder that needs speech therapy is Aphasia. A cognitive-communication disorder related to damage involving the left hemisphere of the brain. A cognitive-communication disorder can impair both communication and cognition. Communication can be either verbal or nonverbal, and includes listening, speaking, gesturing, reading, and writing (ASHA, 2005b). Cognition involves processes like attention, perception, memory, and organization. Cognition and communication are so closely related that impairment in language and communication can impair cognitive processes, just as cognitive impairments may disrupt communication (ASHA, 2005a). A very important role in this situation is played by speech pathologists. The aim of this article is to analyze the role of speech pathologists and make clear how important they are in special education and not only. The results show that their primary purpose is recovering speech and language abilities. However, aphasia treatment is not exclusively designed for the rehabilitation of the language modalities. Complications from acquired brain injuries are multifaceted, thus the knowledge and skills of several professionals from different disciplines are necessary to maximize positive outcomes in the patient.

1. Introduction

A cognitive-communication disorder can be either congenital (present from birth) or acquired (ASHA, 2005b). LaPointe (2005) states that aphasia is distinctly an acquired disorder that can be caused by a cerebrovascular accident (CVA), traumatic brain injury (TBI), or a brain tumor. CVA, also known as a stroke, is the leading cause of aphasia, and occurs when the blood supply to the brain is disrupted, causing damage or death of the brain cells and neurons due to the lack of nourishment that they are receiving (LaPointe, 2005). Another possible etiology of aphasia is neurodegenerative diseases such as Alzheimer’s, or Parkinson’s. These diseases often result in brain damage that impairs specific language functions such as memory, reasoning, and judgment. Although these diseases impair cognitive-communication abilities, there is controversy over whether aphasia occurs as a result (LaPointe, 2005).

Aphasia can be identified as a syndrome due to the array of possible speech and language symptoms (Drummond, 2006). Symptoms include loss in one or more of the four language modalities, (auditory comprehension, reading comprehension, verbal expression, and written language). Auditory comprehension impairments consist of difficulties understanding speech, providing inaccurate answers to “yes/no” questions, inability to understand complex grammar, and not being aware of their errors (ASHA, 2014). Reading comprehension impairments, or alexia, include trouble comprehending written information, difficulty identifying words by sight, replacing associated words for the word itself, and difficulty reading function words such as to, from, or the. Loss in verbal expression includes difficulty finding words (anomia), speaking in single words, putting words in the wrong order, and speaking in short, fragmented phrases (ASHA, 2014). Impairments in written language are often seen when patients with aphasia experience difficulty writing single words, writing run-on sentences, and writing sentences with incorrect grammar, or copying letters, words, and sentences (ASHA 2014). These symptoms are seen in unique patterns and combinations and can vary greatly from one patient to another. Patient’s may present with one or all of these symptoms depending on the location and severity of brain damage.

Aphasia symptoms are not limited to the patient’s speech and language, but also manifest in areas that affect the patient’s quality of life. Those with aphasia are often disconnected from their social circles and personal relationships because these relationships are dependent on the ability to communicate (Sarno, 1993). Aphasia often changes an individual’s identity and alters the patient’s sense of themselves. Not surprisingly, depression is the most frequently researched and reported psychological symptom of aphasia (Sarno, 1993; 2004). Because of this, rehabilitation for aphasia calls for a psychosocial intervention model that should also address identity issues including personality, emotions, human nature, and other affected personal attributes.

Although aphasia can be generally defined and described by its symptoms, there has been much controversy surrounding the definition of this disorder for years. The term aphasia was first introduced in 1864, and has since evolved and been
the subject of much debate (Drummond, 2006). Hillis (2007) states that even within the past 25 years, the classification of aphasia has shifted from primarily describing impaired language skills to describing the impaired cognitive functions. Historically, the field of medicine has been the leading discipline in aphasia research. In more recent years, however, there has been an increase in the interest of aphasia by many fields such as neuropsychology, neurolinguistics, and speech-language pathology (Tesak & Code, 2008). Aphasia rehabilitation modeled its foundation and functional perspective after the field of rehabilitation in medicine (Sarno, 2004). The philosophy used in the medical rehabilitation setting can be applied to assessment, treatment, and many other areas of aphasia rehabilitation such as collaboration and advocacy.

With an increased interest in aphasia and other cognitive-communication disorders, speech-language pathologists (SLPs) have become more involved in stroke and aphasia rehabilitation. This has presented a need for their roles to be more clearly defined. In the 1950s aphasia rehabilitation services were practically non-existent, and there were only 1600 SLPs who were members of American Speech-Language-Hearing.

2. Support for people with Aphasia

Association (ASHA) (Sarno, 2004). Currently, there are over 175,000 members of ASHA, many of who are equipped to provide services to patients with aphasia. In 1989, The Joint Committee on Interprofessional Relations Between ASHA and Division 40 (Clinical Neuropsychology) of the American Psychological Association (APA) was formed to encourage and promote collaboration between Neuropsychologists (NPs) and SLPs and to help define their roles. Even though roles of professionals often overlap when treating a patient with an acquired brain injury, the SLPs primary role on the interdisciplinary team is to assess and treat speech and language difficulties including attention, memory, and problem solving (Sander et al., 2009).

SLPs work closely with a team of professionals from other disciplines when providing rehabilitation services to clients with cognitive-communication disorders, such as aphasia (Drummond, 2006). For example, stroke patients at the Kessler Institute for Rehabilitation receive simultaneous treatment from a team of professionals including the case manager, nurse, physical therapist, occupational therapist, speech-language pathologist, recreational therapist, pharmacist, dietician, nutritionist, respiratory therapist, and psychologist (Donnelly & King, 2014). Several studies have shown that the interdisciplinary approach improved patient outcomes and quality of care (Strasser et al., 2008). Interdisciplinary team treatment is also widely endorsed within the medical field. For example, Medicare requires an interdisciplinary team approach for inpatient rehabilitation reimbursement. The team approach allows diverse health professionals to coordinate their services to best fit the patient and help them to recover (Strasser et al., 2008).

Although therapy given by an interdisciplinary team has been shown to improve patient outcomes, there are concerns among SLPs regarding their role on this team, as well as the roles of other professionals. As the collaborative model has been used more often, SLPs have highlighted issues of overlapping professional boundaries and scopes of practice (Coordinating Committee, 2009). Studies have investigated the perceptions of occupational therapists (OTs), physical therapists (PTs), NPs and SLPs addressing one another’s roles and the obstacles of working in a team setting (Insalaco, Ozkurt, & Santiago 2007; Sander, Raymer, Wertheimer, & Paul 2009). Although there are studies about the roles of SLPs on a team, this research is general. There has been little research specifically pertaining to the SLPs role in aphasia rehabilitation and how SLPs are to provide services to these patients. SLPs must be able to understand their specific roles in order to collaborate well with other professionals and to provide proper services to patients.

3. Roles and responsibilities of SLPs in aphasia rehabilitation

The above treatments are most often provided by SLPs with the primary purpose of recovering speech and language abilities. However, aphasia treatment is not exclusively designed for the rehabilitation of the language modalities. Complications from acquired brain injuries are multifaceted, thus the knowledge and skills of several professionals from different disciplines are necessary to maximize positive outcomes in the patient (Joint Committee, 2007). One highly important role of Speech-Language Pathologists is that they communicate and collaborate well on an interdisciplinary team to provide a comprehensive assessment process, treatment plan, and discharge plan (Joint Committee, 2007). In order to fulfill their own roles and responsibilities in aphasia therapy and rehabilitation, SLPs must be effective members of the rehabilitation team. Although there is no position statement defining specifically the role of SLPs in aphasia therapy, ASHA has developed roles for SLPs when working with patients who have cognitive-communication disorders. The roles outlined by ASHA include identification, assessment, intervention, counseling, collaboration, case management, education, prevention, advocacy, and research (ASHA, 2005b). A speech pathologist’s
distinctive role in treating aphasia is to maximize the recovery of language skills as much as possible and to teach patients how to compensate for language deficiencies (DeRuyter, Fromm, Holland, Stein, 1996). The author has reviewed the literature concerning each of these roles and specifically how they relate to aphasia therapy.

Interdisciplinary Roles. SLPs must be aware of their responsibilities on an interdisciplinary team in order to focus on the recovery of language abilities in aphasia patients. ASHA and Division 40 of the APA, the Joint Committee on Interprofessional Relations, does not identify specific roles of the SLP. However, they have agreed that all disciplines relevant to neuropsychology should play a role in expanding the knowledge about this field, and provide appropriate treatment to patients in this population (ASHA, 1990). The committee developed the first set of guidelines on the topic in 1995 to help regulate the procedures and purpose of an interdisciplinary team and address how clinical services should be provided to individuals with brain injuries (Joint Committee, 2007). Members of the Joint Committee revised these general guidelines in 2007 and updated the terminology using the term “acquired brain injury” instead of “head injury” (Joint Committee, 2007). This change acknowledges the fact that brain damage may be due to causes such as tumor, stroke, or disease. A cognitive rehabilitation team is expected to collaborate and improve the care of patients, and their recovery outcomes (Joint Committee, 2007). Each discipline plays a role in advocating for individuals suffering with aphasia, and providing these patients with proper care and treatment. Working on an interdisciplinary team is an all encompassing role of the SLP in which they must carry out individual responsibilities along side other professionals.

Identification. Identification of a cognitive-communication disorder is described as identifying individuals who are at risk for cognitive-communication disorders, or show signs of a cognitive-communication disorder (ASHA, 2005b). Thus, the roles of identification in aphasia are to recognize those suffering from aphasia and provide them with further assessment of their language abilities. Specifically, SLPs are held responsible to screen individuals who demonstrate difficulties with language and communication. Their role is to determine the need for additional assessment, and the need to possibly refer patients to other services (ASHA, 2014). Screening is the first step in identifying aphasia, and a patient must go through a screening process to determine the direction of further evaluation of their cognitive impairments and to identify the disorder.

There are two types of effective screening procedures currently used to help identify aphasia, these include: the bedside clinical examinations, and standardized specific function tests (Spren & Risser, 2003). The bedside clinical examination has historically been the primary method of identifying aphasia. This screening procedure is simple and includes tasks from unstructured conversation to a more structured activity such as pointing to a watch or listing days of the week (Spren & Risser, 2003). Standardized specific function tests are created to assess a specific aspect of language in a detailed and standardized manner. These tests measure certain language functions that are sensitive to the presence of aphasia (Spren & Risser, 2003).

A screening determines the need for treatment, and is helpful to appropriately refer the patients to the services they need. An SLP or other qualified professional is able to perform a screening. Typically this examination evaluates oral motor functions, speech production skills, comprehension, and production of spoken and written language as well as cognitive aspects of communication (ASHA, 2014). A screening may result in many things, for example, a recommendation for a rescreening, referral for other evaluations or services, or a comprehensive speech, language, swallowing, or cognitive-communication assessment (ASHA, 2004).

Assessment. If signs and symptoms of aphasia are identified after a screening is done, the SLP is responsible for performing a more comprehensive assessment of the patient. His or her job is to analyze the receptive and expressive abilities of the patient within the four modalities of language, which are speaking, listening, reading, and writing (Elbaum & Benson, 2007). The purpose of an assessment is to recognize strengths and weaknesses of spoken and written language, identify how the language disorder disrupts the functioning of daily activities, discover the contexts in which individuals will communicate more or less successfully, and assess how the language impairment has affected the patient’s quality of life and how it has impacted his or her family (ASHA, 2014). There are several steps performed in a typical assessment of aphasia (ASHA, 2014). The SLP will review the case history and learn about the medical status, education level, and occupation of the patient. The SLP is also responsible for being informed on the socioeconomic, cultural, and linguistic background of the client. The SLP will review the client’s auditory, visual, motor, cognitive, and emotional status and select and administer standardized and nonstandardized assessments to properly evaluate them (ASHA, 2014).

Assessing individuals with aphasia can be done in several different ways using different measures. In some instances, an entire standardized test is administered, or the clinician may only administer specific subtests chosen from the standardized test battery. In other instances the clinician may develop nonstandardized assessment tools to survey aspects
of speech, language, and cognition. The role of the SLP in aphasia assessment is to conduct culturally and linguistically relevant assessments of language and communication, which will aid in diagnosing the presence of absence of aphasia (ASHA, 2014). The clinician is responsible for referring patients to other professionals if needed, and to help develop appropriate treatment plans that provide treatment, document progress, and determine appropriate dismissal criteria (ASHA, 2014).

Intervention. A primary role of SLPs when working with people who have aphasia is providing proper treatment and intervention. Aphasia treatment is designed specifically for the individual to focus on their needs and what specific goals they are trying to reach (ASHA, 2014). The purpose of treatment is to restore language abilities, strengthen intact language abilities, teach strategies for language compensation, train families and caregivers to communicate with people who have aphasia, improve skills in all contexts of communication, and educate patients and others about aphasia and the treatment and recovery process (ASHA, 2014).

The role of the SLP in intervention for cognitive-communication disorders is to choose evidence-based practices that are clinically, culturally, and linguistically appropriate for treatment of a patient’s communicative difficulties (ASHA, 2005b). Specifically for aphasia, the basic goal of intervention is to improve a person’s ability to communicate (NIDCD, 2008). Depending on the severity of their disorder, this could mean helping patients to use remaining language abilities, learn compensatory strategies, or learn different ways to communicate. Although some persons with aphasia may spontaneously recover some language abilities following a stroke or brain injury, therapy is helpful to maximize the recovery. Intervention is most effective when it is implemented in the early stages of recovery. Intervention for aphasia treatment should begin as soon as is possible because the most positive changes can occur early after the onset of aphasia (ASHA, 2011).

Counseling. The SLPs responsibilities extend beyond treating the patient directly through language therapy. Counseling individuals with aphasia and advising their families about communication-related issues are included in the roles and responsibilities of the SLP (ASHA, 2014). SLPs should provide appropriate counseling for people and family members about the impact of cognitive-communication disorders (2005b). Counseling is important because it provides individuals, families, caregivers and others with information about aphasia and supports them in developing strategies to help enhance the recovery process (ASHA, 2004). The goal of counseling is to support individuals and their families in living as successfully as they can in spite of their unanticipated disorder. The clinician’s job is to listen and understand the client’s perspective, and guide the patient through their concerns and anxieties. The SLP is responsible for supplying information that will help the person with aphasia understand their disorder, and give them direction to continue with their lives in a realistic and optimistic way. All this information will be used by the clinician and the individual and translated into actions that promote the best possible recovery (Holland, 2007).

The type of disorder and the prognosis will affect the nature of counseling provided by a clinician. Disorders such as aphasia, and traumatic brain injury often have a positive prognosis because they present with conditions that are likely to improve with clinical intervention. Counseling in these situations would focus more on instilling acceptance of the disorder and fostering realistic and positive expectations (Holland, 2007). A more progressive prognosis, such as in dementia, primary progressive aphasia, or brain tumors elicit a different form of counseling. Under these circumstances the clinician must work with the patient toward acceptance of this prognosis. It is important that the client learns to live well within the remainder of their life and, in the worst cases, deal with end-of-life issues (Holland, 2007).

Counseling is meant to assist individuals and to decide on appropriate goals that take advantage of strengths and address weaknesses that affect communication. The SLP must motivate the patient to become autonomous and facilitate activities that will help them to acquire and utilize necessary skills that will get them closer to their goals (ASHA, 2004). Counseling is also intended to help individuals learn to change and adapt to their environment in order to effectively communicate.

Collaboration & Case Management. The SLP is responsible for collaborating effectively to develop and apply strategies of assessment and intervention (2005b). These strategies are discussed with the patient as well as with family members, teachers, professional colleagues, and others who are relevant to the patient. In order to collaborate effectively, SLPs must include other services and professionals in the implementation of treatment for the patient (ASHA, 2005a). Clinicians must be adept at working well with a range of collaborative teams. They should also be able to communicate professionally and efficiently. The SLP is responsible to inform the referral sources of the client’s case history and reasons for referral, and also must keep administrators, payers, and decision-makers up to date on the patient’s progress (ASHA, 2005a). Case management and collaboration skills also include the ability to manage the use of resources sensibly based on the long-term or immediate needs of patients with aphasia, and their family members or caretakers.
Collaboration is a key aspect of assessing cognitive impairments and planning for rehabilitation (ASHA, 2003). For example, if SLPs and other professionals fail to work together, it may result in unnecessary testing. Assessing the patient will be more efficient if professionals act as a team and determine the best approach to overcoming obstacles. Well-collaborated assessments initiate intervention programs that are effective and consistent and also increase the patient’s awareness of their communicative strengths and weaknesses.

Education. Another role played by the SLP in caring for individuals with aphasia is the role of an educator. Clinicians must educate future SLPs in assessment and intervention of this population of patients. They are also responsible for informing families, caregivers and other professionals concerning the patients needs while they are recovering from aphasia (ASHA, 2005b). Education is needed for those suffering with aphasia and their social circles. Proper education can help these individuals break down barriers of communication (Toner & Shadden, 2002). Information must be conveyed to patients in a way that they can understand; education should be personalized so that patients can comprehend their disorder and the options they have in treatment and other rehabilitation services (Cameron, 2013). Even though this is an important role in aphasia and stroke rehabilitation, a recent study found that the majority of participants reported they did not receive any written educational materials about aphasia (Rose, Worrall, McKenna, Hickson, & Hoffman, 2009). All professionals should offer appropriate forms of educational information.

Within the context of stroke victims and aphasia, much of the education is focused on helping families gain confidence and learn how to properly care for individuals with aphasia once they are home. In a study concerning the needs of family members of individuals with aphasia, family members identified needs for information about aphasia, psychosocial support, and to be provided with hope (Avent et al., 2005).

SLPs can empower family members and patients by providing them with the tactics they need to optimize the quality of life of aphasia patients. Education emphasizes the necessity of follow-up care and connects caregivers with resources such as home health care or therapy sessions.

Advocacy. Within the area of aphasia, SLPs are responsible for advocating for their patients who have this disorder and the patient’s family. Advocating for this population can be done at the local, state and national levels (ASHA, 2014), and is important in the process of raising awareness, increasing funding, and reducing psychosocial isolation (Elman, R.J., Ogar, & Elman, S.H.). Advocacy in aphasia is important because aphasia is an unfamiliar term compared to other health conditions or communication disorders such as Parkinson’s, Autism, or stuttering. One study searched the top 50 newspapers in the United States to investigate the number of times the words ‘aphasia’, Parkinson’s disease’, ‘stuttering’, ‘muscular dystrophy’, ‘multiple sclerosis’, and ‘autism’ were used in comparison to one another. Although the incidence rates of aphasia are similar to or higher than most of the other disorders, it has been used the least in print (Elman et al., 2000). When aphasia was mentioned in these articles, it was often used out of context and not fully defined or explained. In an effort to increase advocacy and awareness, ASHA has created a sub-group of the Neurogenics Special Interest Division 2. This secondary committee is focused specifically on spreading awareness of neurogenic communication disorders, including aphasia.

Another important role of SLPs is to help patients advocate for themselves. Research has discovered that promoting self-advocacy in people who are living with aphasia can result in both direct and indirect benefits (Elman et al., 2000). Teaching patients to advocate for themselves is an important part of aphasia rehabilitation, however people who have aphasia cannot always be vocal activists for their disorder because of the way that aphasia affects language. SLPs must take on the role of activist and promote awareness at all levels including political and judicial (Elman et al., 2000).

Prevention. Prevention involves informing the public on the factors that lead to cognitive-communication disorders (ASHA, 2005b). ASHA’s policy statement on prevention (1988) identifies three different levels of prevention concerning communication disorders: primary prevention, secondary prevention, and tertiary prevention. Primary prevention is explained as the inhibition of a disorder by reducing factors that might lead to the onset. Secondary prevention is defined as the early recognition and intervention of a disorder that aims to prevent severe cognitive deficits. Tertiary prevention refers to rehabilitation of the disorder in an attempt to restore functional abilities that the patient may have lost at the onset of the disorder (ASHA, 1988). Because aphasia is primarily an acquired symptom resulting most often from a stroke, primary prevention is geared towards the prevention of stroke whereas secondary and tertiary prevention refers to intervention for aphasia.

A person who has suffered from a past stroke has a 43% risk of experiencing a second stroke (Wright et al., 2012). Primary prevention for stroke will include the management of risk factors such as cholesterol and blood pressure. SLPs must collaborate with other professionals to ensure that primary prevention strategies are in place, and inform the patients’ families of these risk factors as
well (Wright et al., 2012). Secondary and tertiary prevention will be included in the roles of identification, assessment, and intervention; these tasks are aimed at preventing further language deficits and restoring language to a functional level.

Research. According to the roles of SLPs working with cognitive-communication disorders, SLPs have the responsibility to use research to advance the information of these disorders, including their treatment (ASHA, 2005b). SLPs remain informed on the current aphasia research and work to expand the data relating to the nature of aphasia and how it is treated (ASHA, 2014). Research in aphasia can be either quantitative or qualitative. The purpose of qualitative data is to understand the client’s perspective. This method of study allows researchers to get a thorough understanding of the experiences of a person with aphasia, and it helps to understand the complexities of the disorder (Skeat & Perry, 2008). A quantitative study focuses more on gathering information about clients. This method can be performed with a larger number of participants and often uses statistical analyses to explore the data (Dalemans, Wade, Van den Heuvel, & De Witte, 2009).

There are a wide variety of research topics available within aphasia. In one study it is reported that most research within aphasia concentrated on the perceptions of the experience of aphasia (Simmons-Mackie & Lynch, 2013). Secondary to this general subject, sub categories could include the perspective of people who have aphasia, or the perspectives of their family members, the meaning of quality of life with aphasia, and views on well-being, psychosocial adjustment and identity in aphasia. Research can also rely information about specific interventions. Research participants vary, including those who have aphasia, their family members and significant others, SLPs, other service providers, and employers. It is important to note that when including people with aphasia as research participants, it is sometimes necessary to use strategies that help those with communication impairments (Dalemans et al., 2009). Research questions are often language-based, thus it is difficult to include people who have language impairments, such as people with aphasia. Adjustments must be made to allow people with aphasia to participate in studies, thus giving researchers and SLPs insight into the complexities of this disorder.

4. Perceived Roles of SLPs

As the SLPs’ scope of practice has expanded, SLPs have had to assume more roles including roles on an interdisciplinary team and the ability to collaborate with other professionals in different settings. Especially in healthcare settings, SLPs have increased roles and are expected to have specialized knowledge and skills in order to serve a specialized population, such as aphasia (Coordinating Committee, 2009). One study surveyed final-year SLP, physical therapy (PT), and occupational therapy (OT) students on their perceptions toward stroke rehabilitation teams and the SLPs’ role on this team (Insalaco, Ozkurt, & Santiago, 2007). The results of the survey showed that in general, all the students, including both PT and OT, agreed that SLPs do have a role in treating aphasia. However, OT and SLP had different opinions on the role of SLPs in treating memory impairments. The researchers concluded that OT students may not understand that the SLP curriculum includes neuroscience courses, which involve learning about the rehabilitation of individuals with brain injury (Insalaco et al., 2007). When collaborating with other professionals, it is important for SLPs to be aware of their roles as well as the roles of other professionals they will be working with. This will ultimately provide patients with better care and more holistic treatment.

Another study investigated the perceptions of SLPs and neuropsychologists (NPs) concerning both of their roles in rehabilitation (Sander, Raymer, Wertheimer, & Paul, 2009). The data in this study indicated that both SLPs and NPs viewed SLPs as the primary treatment providers. The results also showed that there is much overlap between the roles of SLPs and NPs in a rehabilitation setting. This research was focused on the collaboration of SLPs and NPs in a rehabilitation setting and reiterated the importance of graduate level education. The researchers in this study concluded that education concerning roles and collaboration of professionals from different fields should be emphasized when students are earning graduate-level degrees within these disciplines (Sander et al., 2009).

Several studies, such as those reviewed above, have researched the perceptions of SLPs and their role in rehabilitation settings with other professionals. However, little research was found on SLPs perceptions of their own roles in rehabilitation. In order for SLPs to collaborate well with other professionals, they must be aware of their own roles and responsibilities when working in various settings with specific populations of patients. The lack of information on SLPs perceptions of their own roles prompted the researcher to ask the following questions about SLPs and their roles.

5. References


