

Profiling Communicative Effectiveness across Aphasia types

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Abstract:

Background- Communication problems caused by aphasia can negatively impact an individual's ability to participate in society, and resume employment.

Aim- To assess various quality of life factors that impact the person with aphasia and compare those factors between aphasia types.

Method- 20 (12 non-fluent; 8 fluent) Hindi-English bilingual persons with aphasia (PWA) were included in the study. Indian scale of Communicative effectiveness was administered to persons with aphasia. The tool consisted of various situations faced in day-to-day life. A comparison was obtained between aphasia types.

Results & Discussion- Questions related to the generalization of skills acquired during therapy were taxing. Situations related to social involvement, speaking on the telephone, and communicating in various situations had an impact post-stroke. PWA faces challenges in communicating in the job environment. Persons with a fluent variant of aphasia have a lesser impact than the non-fluent type of aphasia.

Conclusion- There is a need to work on the generalization of skills during management and considering the social context.

Keywords: quality of life; aphasia; communicative effectiveness

Introduction:

According to the National Aphasia Association (2009), a person is said to have aphasia when he/she has an impairment in language accompanied by difficulty in expressing or understanding speech with or without reading and writing deficits. Aphasia is generally caused due to brain injury. It is present in 21–38% of acute stroke patients (Berthier, 2005). Aphasia is a multimodal disorder affecting auditory comprehension, reading, oral-expressive language, and writing (McNeil & Pratt, 2001).

Along with diagnostic formulation, it is essential to determine the quality-of-life outcomes in persons with aphasia (PWA). Significant participation restrictions brought on by aphasia can have a negative impact on social interactions and relationships. Due to physical limits and restricted communication abilities, one of the main restrictions on social life is the inability to participate in leisure activities like seeing friends and family, going to events, and going on picnics with family, etc. The social life of people with aphasia is severely constrained, resulting in fewer diverse social networks. The social life of people with aphasia is closely connected with the severity of aphasia, communication abilities, emotional health, and age, among other factors.

Black-Schaäfer and Osberg (1990) observed a considerable negative association between aphasia and the capacity to resume work. Aphasia-related communication issues can have an adverse effect on a person's overall involvement in life (Chapey et al., 2000), community participation (Cruice et al., 2006), interaction with others, self-esteem (Shadden & Agan),

2004; Shadden & Koski, 2007), resuming work, community and personal networks (Vickers, 2010), and awareness of oneself and individuality (Strong & Shadden, 2020). Depression and decreased levels of meaningful engagement are linked (Cruice et al., 2003; White et al., 2014) and associated with societal exclusion, isolation, and other social and psychological repercussions (Cruice et al., 2003). Communication within the family and the individual with aphasia's support network are both impacted by aphasia (Howe et al., 2012). The domains that might affect QoL are the severity of aphasia, the level of communication impairment, level of independence, economic status, and educational level (Lee et al., 2015). The PWA's inadequate language abilities may substantially impact their everyday lives, involving their network of friends, social engagements, interactions with others, and societal assistance (Hilari & Byng, 2009; Bose et al., 2009; Hilari et al., 2012). A person's level of social engagement is related to internal variables such as a positive attitude towards oneself, growth, and improvement. (Cruice et al., 2003). As a result, one's ability to express themselves may be significantly impacted by aphasia, which may also have significant effects on other aspects of their life. PWA's means of living, level of interaction, and nature concerning their interactions.

Need of the study- There is a need to assess whether a one's quality of life has improved following therapy, these factors must be measured both during and after the intervention.

Aim of the study- Evaluation of various quality of life factors that impact the person with aphasia and compare those factors between aphasia types.

Methods:

20 (11 Females and 9 Males) Hindi-English bilingual persons with aphasia were included in the study (mean age of 43.55). Among them, 12 were the non-fluent type of aphasia, and 8 were the fluent type of aphasia. Prior consent was taken from the participants to enroll themselves in the study. The participants included had a minimum post-stroke onset of three to six months and were attending therapy for a minimum of three months. The population having a history of neurological illness, psychiatric disorders, cognitive decline, and sensory deficits were excluded from the study. The comprehension scores on Western Aphasia Battery- Revised (Kertesz, 2006). were equal to or greater than five. The participants were multilingual, with Hindi and English as one of the languages known.

The Indian Scale of Communicative Effectiveness (ISCE) questionnaire administered consisted of 18 questions, including the common situations that persons with aphasia have to face in their day-to-day environment. The tool was also performed on the caregiver and clinician of the respective PWA. A descriptive analysis of the findings on the tool was performed. The response choices would be based on a three-point categorical rating scale where persons with aphasia and their caregiver would mark - 0- Not effective, 1- Somewhat Effective, and 2- Very Effective. Few questions were specific to individuals' needs and might differ for others; for those questions, the participants were instructed to mark not applicable in the questionnaire designed, and no scoring would be provided for the question. The total scores were obtained.

Results & Discussion

Descriptive analysis was carried out to compare various situations between aphasia types. Table 1 shows a distinct categorization of the variants of aphasia and the scoring. Situations from the questions are categorized according to the responses obtained into very effective, effective, and not effective. For the non-fluent variant of aphasia, the questions pertaining to speaking with strangers and speaking in new situations were found to be not effective. Speaking over the telephone, and initiating conversations, speaking in varied situations were found to be effective, as represented in Table 1. Expressing through writing was found to be challenging and rated as not effective.

In comparison, for the fluent variants of aphasia, initiating conversations was very effective, and returning to their daily conversational tasks and speaking in various situations was found to be effective. An equal weightage was given for situations like speaking on the telephone and speaking with strangers. Expressing through writing was rated as effective by this group of participants.

Overall, for these situations, certain difficulties persisted; hence a high score was not attained. Both variants of aphasia have difficulty in resuming work post-stroke onset, as seen in the results of the present study. The results revealed that questions pertaining to the generalization of skills acquired during therapy were taxing for the participants.

Table 1. Situations are categorized based on maximum scores obtained with respect to ratings in two variants of aphasia.

Non-Fluent Variant	Fluent Variant
<p>Very Effective</p> <ul style="list-style-type: none"> • Understanding day-to-day conversations • Understanding the content of Television • Following the tone of voice 	<p>Very Effective</p> <ul style="list-style-type: none"> • Understanding day-to-day conversations • Following instructions & command • Understanding the content of Television • Understanding multi-speaker situations • Following the tone of voice • Using gestures to express themselves • Initiating conversations
<p>Equal rating (50%- Effective; 50% very effective)</p> <ul style="list-style-type: none"> • Following instructions & command • Using gestures to express themselves 	<p>Equal Rating (50%- Effective; 50% very effective)</p> <ul style="list-style-type: none"> • Speaking with strangers • Speaking over the telephone
<p>Effective</p> <ul style="list-style-type: none"> • Understanding the reading content • Understanding multi-speaker situations • Expressing themselves in Hindi or English • Initiating conversations • Speaking with family members • Speaking over the telephone • Speaking in various communication situations • Gaining attention 	<p>Effective</p> <ul style="list-style-type: none"> • Understanding the reading content • Expressing themselves in Hindi or English • Speaking in various communication situations • Expressing through writing • Returning to their daily conversational tasks
<p>Not Effective</p> <ul style="list-style-type: none"> • Communicating in the job environment • Speaking with strangers • Speaking in new situations • Expressing through writing • Returning to their daily conversational tasks 	<p>Not Effective</p> <ul style="list-style-type: none"> • Communicating in the job environment

Similar findings were obtained in the study done by Black-Schaâer and Osberg (1990). They observed a considerable negative association between aphasia and the capacity to resume work. Communication difficulties caused by aphasia can negatively affect a person's ability to return to employment (Dalemans et al., 2010). Pallavi, Perumal, and Krupa (2018) aimed to compare the scores of Broca's aphasia and normal individuals. They found lower scores in socialization (examples- social outings, telephonic conversations, etc.) and activities domains. These lower scores denote that PWAs are not fully engaging in whatever they would like to do. Ravi et al. (2018) stated that individuals with aphasia have a low quality of life because of factors like their limited participation in gatherings with their families. (For example, being unwilling to attend family events) decreased engagement in society (e.g., lesser social gatherings, fewer communications with friends and acquaintances), being unable to find work or resume work.

Conclusion:

It can be concluded that the situations pertaining to social involvement, speaking on the telephone, and communicating in various situations had an impact post-stroke. The individuals with aphasia face challenges in communicating in the job environment. Overall, aphasia has an influence on the ability of a person to communicate effectively. The impact of aphasia on the person with aphasia, caregiver, and clinician can be different as concluded from the scores obtained. Thus, consideration of social situations must be taken into account during management.

Persons with a fluent variant of aphasia have a lesser impact than the non-fluent type of aphasia on the ability to communicate effectively. Both types of aphasia faced challenges in communicating in a job environment. Thus, suggesting that the skills acquired during therapy have not been generalized in social contexts. Using the tool in therapy settings might help in assessing the generalization of skills, evaluating the outcomes of therapy.

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