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TITLE- **Short Communication: How are SLPs managing services for people with mild aphasia?**

Abstract

At present, there is limited information on the nature and extent of speech-language pathology services in the U.S. specific to people with mild aphasia (PWMA). The goal of the present study was to determine how speech-language pathologists (SLPs) perceive the assessment, treatment, and discharge of PWMA. According to anecdotal reports from SLPs and PWMA, current services may be inadequate and those with more severe aphasia types are being prioritized.

To investigate factors potentially limiting SLP involvement and to determine gaps in service, a 26-question survey, consisting of both open-ended and closed ended questions, was developed and distributed via email and social media to selected groups of SLPs. A total of 133 SLPs responded to the survey. In this brief report, we discuss only the primary findings. Reports of assessment, treatment, and discharge procedures were diverse; however, a number of central themes were observed. The majority of respondents had more than ten years of experience. They reported greater use of informal measures in assessing people with mild aphasia as compared to people with more severe forms of aphasia. Discharge procedures and recommendations were found to involve primarily referrals to the next level of care, recommendations for continued social interaction, and maintenance programs to preserve treatment progress. Responses tended to be appropriate, yet, not necessarily indicative of the actual standard of care. SLPs reported the need for additional assessment tools and resources in order to better serve people with mild aphasia. Perceived constraints included large

caseloads, resource limitations, awareness of health professionals, and the prioritization of those with more severe deficits. Information gathered in this survey highlights the gap in services for this population and provides some tangible guidelines for how to proceed. Given that PWMA have the greatest chance of returning to work, we argue that any prioritization bias should lean toward favoring this population.

Introduction

Individuals with mild aphasia often report significant communication disruption including a decreased ability to participate in social activities and difficulty with written and verbal expression, leading to misunderstandings (Cruice, Worrall, & Flickson, 2006; Elman & Bernstein-Ellis, 1995). Many individuals with mild aphasia are forced to resign from their jobs (Marshall, 1993). Despite these effects, and research pointing to a decreased quality of life equal to that of those with more severe deficits (Cavanaugh & Haley, 2019) there is a shortage of evidence-based treatment approaches that target receptive and expressive language in people with mild aphasia. In this brief communication, we focus on three main areas regarding PWMA: assessment, treatment, and discharge. Our goal is to draw clinical and research attention to this population and to stimulate questions for future research.

Rationale. To do so, we designed a survey after hearing consistent feedback from multiple people who have mild aphasia. Each PWMA independently expressed dissatisfaction with the therapeutic process. Specifically, they view standardized tests as having little relevance; they report not having received homework; they state that their SLP did not make mention of ways to incorporate technology into the recovery process; they found treatment itself to be silly or nonfunctional; and they were surprised and dismayed to be discharged as quickly as they were.

Definition. Although a single definition of mild aphasia does not exist in the literature, many researchers tend to define people with mild aphasia (PWMA) as those with word-finding difficulties and decreased speed of processing (Graham, 2007). Hallmarks also include normal or near normal performance on standardized tests (Marshall 1993, Raymer & Lapointe 1986, Ross & Wertz 2004), compromised written expression, reading comprehension deficits, decreased verbal memory (Raymer & Lapointe, 1986), and dysfunction in the use of aspect and tense marking (Gober, 2013).

Assessment. PWMA report difficulty with language tasks in their everyday life, despite scoring within normal limits on various language assessments (Cruice, Worrall, & Hickson, 2006; Raymer & Lapointe, 1986). Discourse analyses are one sensitive way to assess the oral language production of people with mild aphasia (Armstrong, Fox, & Wilkinson, 2013) but despite emerging evidence of reliability and validity (Boyle, 2014), the lack of psychometric data make discourse measures insufficient for use as a diagnostic tool (Pritchard et al., 2017). We speculate that people with mild aphasia are under-diagnosed and, as a result, may not receive needed language treatment.

Treatment. Few treatment studies targeting PWMA have been published and most of these present data from fewer than five participants. When extrapolated on a case-by-case basis, current evidence does suggest a positive effect of treatment for PWMA (i.e., Hickin et al., 2015; Milman, 2016). Given the general lack of evidence, however, it is unclear how, at this time, speech-language pathologists (SLPs) choose to provide treatment to this population and whether some feel unprepared to work with PWMA altogether.

Discharge. Prior to survey construction, we interviewed several experienced clinicians working in a variety of settings. Through these discussions, it became evident that individuals with mild aphasia may not be receiving the skilled speech services they need. One SLP in an acute care setting reported that "discharge is not dependent on speech; if you can walk, you can go home. So, if you have aphasia, you can go home and we might miss it." (Anonymous, 2018). A thorough literature search revealed no published works that examine the discharge process specific to individuals who have mild aphasia.

Aims of the Current Study. Lack of published research is one indication that PWMA may not be receiving appropriate assessment, treatment, and discharge services. Prior to developing more specialized services for PWMA, we determined it beneficial to survey the current knowledge and practices of SLPs with this specific population. The following is a brief overview of our methods and main findings.

Methods

Survey Construction. After obtaining IRB approval, A 24-question web-based survey was developed using Qualtrics, an online commercial survey distribution and collection site. Once a respondent checked a box indicating having read a basic consent statement, they were then presented with open- and closed-ended questions targeted respondent demographics, assessment, treatment, and discharge of PWMA.

Participants. We e-mailed SLPs who are members of professional affiliations, acute and outpatient SLPs listed on hospital, medical and professional web sites, and attendees of medical SLP conferences. The online survey was also posted on the ASHA Special Interest Group 2, discussion board and on 20 speech-language pathology-based Facebook pages chosen due to their high number of followers and relevance to the population being investigated.

Data Analysis. Results from the survey were analyzed using descriptive statistics to determine the frequency of responses to objective questions. Qualitative methods were used to categorize responses. An inductive thematic analysis (Boyatzis, 1998) involved reducing the raw data and identifying common themes within the sample. This was completed for open-ended questions.

Results

We analyzed responses from 133 individuals from across the United States and from a range of patient settings. Survey methodologists suggest obtaining a sample size of between 30 and 500 with a non-probability sample such as the one represented in the current survey (Alreck & Settle, 1995; Hill, 1998). The majority of respondents (68%) reported practicing for 10 or more years and just 3% reported practicing less than one year. SLPs were most likely to take on a PWMA in university clinics and outpatient clinics. Most respondents (95%) reported that it was “extremely likely” that PWMA would be added to their university caseload; 93% reported the same at an outpatient clinic. In contrast, only 61% of respondents reported this high likelihood within skilled nursing facilities, 58% in acute care, and 49% in home health.

Assessment. Respondents were asked to list the standardized assessments and informal assessments that they typically use when assessing people with *mild* aphasia. Ninety percent of respondents reported using *different* means of assessment for PWMA. A qualitative content analysis of their responses revealed these major themes: Forty-one of the 133 (31%) respondents reported a greater focus on informal measures such as informal sequencing tasks or synonym/antonym generation. Twenty-one respondents (16%) reported utilizing specific language batteries with more complex stimuli (e.g., the Token Test; Renzi & Vignolo, 1962). Twenty-two respondents (17%) reported an overall greater focus on cognitive assessment.

Factors reported as precluding an individual with mild aphasia from being assessed are depicted in Figure 1 and include: presence of pre-morbid cognitive deficits; lack of insurance/funding; lack of referral from healthcare provider(s); patient/family denial of deficits; medical complications; and patient “missed” by assessment. More than half of respondents reported that there are no factors that may preclude an individual with mild aphasia from being assessed.

Treatment. Respondents were asked to select the types of goals that they typically work towards for individuals with mild aphasia. A majority of respondents reported implementation of various types of goals including discourse-based, occupation-based, and reading/writing-based goals. The majority of respondents (82%) reported assigning homework to PWMA. Types of homework are depicted in Figure 2 and show a variety of ways in which SLPs are guiding people with mild aphasia to improve performance in the various language modalities. When asked about incorporating the use of technology into treatment, 7% use it regularly, 21% use it “most of the time,” 16% use it “about half the time,” 48% use it “sometimes” and only 7% reported *never* using technology with this population.

Discharge. Respondents were asked to describe the typical discharge process for PWMA who are in their care. Common themes generated from the free-text responses are depicted in Figure 3 and included assessment of functional communication, review of goals, family/staff/caregiver education, re-assessment, recommendations for community services, referral to next level of care, assign home program, and arrange maintenance program.

The final question of the survey asked SLPs what they need in order to better serve this population. Again, common themes were generated and these are depicted in Figure 4. According to the responses, the most pressing need is evidence-based treatments designed specifically for individuals with mild aphasia followed by the need for education on current technology that is available and potentially of use for this population. Referrals from medical professionals, access to technology, insurance approval, and updated research on mild aphasia, were ranked similarly by respondents.

Discussion

The results of this survey work do not reflect what we are hearing from people with mild aphasia, nor do they reflect the scarcity of literature addressing this population. The majority of respondents were SLPs with more than ten years of experience, each of whom elected to participate based on the content. It follows these individuals were likely those who already acknowledge that those with mild aphasia are a unique population. We suspect that response bias greatly influenced our study and that instead of learning what is representative, we have been provided a list by experienced clinicians of the tools and strategies that should be considered when working with people with mild aphasia. Specifically, these SLPs do report: a) conducting assessment using informal measures, b) performing more in-depth cognitive and literacy evaluations, c) customizing treatment to the PWMA's needs including occupation-based goals when applicable, d) incorporating technology into treatment, and e) creating a supported discharge plan after f) no more or less treatment time than those with more severe aphasia types.

Some SLPs say they have all they need in order to treat this population but the majority do offer recommendations in agreement with the sentiments of our aphasia group members. For example, respondents reported that they may be precluded from seeing an individual with mild aphasia primarily due to 'lack of (doctor) referral for services.' In order to fulfill the ASHA Scope of Practice (ASHA, 2016), SLPs must push harder to collaborate with other medical professionals to meet the needs of this population. We must provide education on the subtle ways in which mild aphasia presents itself and on the long-term consequences of not providing services.

In addition, respondents report inadequate assessment tools. At this time, SLPs must use of the few existing assessments that are more sensitive in detecting mild impairments such as the Token Test (De Renzi & Vignolo 1962) which has been found to be especially useful in detecting syntactic deficits in PWMA (Raymer & Lapointe, 1986). Many respondents reported personal use of informal assessments such as role-play and picture descriptions but, here, SLPs should proceed with caution. A recent scoping review of the informal assessment literature reveals a lack of consensus on how best to establish performance; limited information on when to use a given method; and limited information on how to analyze these measures (Thomson, Gee, Sage, & Walker, 2018). Discourse analyses do provide useful information about the productivity, lexical, and grammatical processing, narrative organization and informativeness of the language of PWMA (Marini et al., 2011) but our survey results show that a relatively small number of SLPs are utilizing discourse analyses in their assessment mild aphasia. This is unsurprising given the time it takes to conduct such analyses.

Lack of evidence-based approaches for PWMA means clinicians must formulate treatment plans with the resources that they have available to them. Although these plans may be tailored to fit the needs of the individual, their efficacy may not be supported by research. It is not clear whether even certain therapeutic variables influence treatment responsiveness in the same way. For example, there is a growing body of evidence in favor of intensive treatment for people with aphasia (Brady, et al., 2016) however learning studies in healthy students favor distributed learning (Son & Simon, 2012). At this time, it is unclear which would be better suited for PWMA.

In addition to analyzing the current treatment approaches and variables contributing to treatment responsiveness, newly developed treatment options should also be explored that are specific to the needs of PWMA. For example, a treatment approach that focuses on returning to work may be beneficial to PWMA aspiring to this goal. Additional treatment approaches to trial may also include those that focus on improving reading and writing skills (Kjellén, Laakso, and Henriksson, 2017).

Finally, when and how to properly discharge PWMA is not straightforward. The discharge process can be difficult both for SLPs (Hersch, 2009a) and for individuals with aphasia with reports of feelings of uncertainty and confusion surrounding the process (Hersh, 2009b). A quarter of the respondents reported discharging PWMA *sooner* than someone with more severe symptoms because they have the functional skills to re-engage in life and to continue their recovery independently. Those PWMA with whom we have spoken find this lack of acknowledgement particularly distressing. A more supportive discharge plan may come in the form of “check-ins” affording an individual an opportunity to connect with the clinician and collaborate on new goals. When relevant, check-ins could include input from the client’s employer in order to help optimize the work environment if possible.

Future Research. The varied ways in which mild aphasia affects individuals, and the complex nature of the assessment, treatment, and discharge processes, suggest that developing a single approach to service is quite unrealistic. Given the reports from our respondents on lack of education about mild aphasia, resource limitations, and large caseloads, prioritization should go toward the formation of guidelines and principles for providing services to individuals with mild aphasia.

Conclusion. Survey results indicate that SLPs are currently doing the best they can with the evidence and materials available. However, research gaps put SLPs in the uncomfortable position of deciding whether to administer treatments for which there is no evidence or to discharge someone with unmet communication goals. We must eliminate barriers to assessment, standardize and implement more sensitive measures of aphasia, and develop evidence-based treatment guidelines. Individuals with mild aphasia have unique needs and potential for job re-attainment. They deserve equal attention from clinicians and researchers alike.

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