

Current Practices in Spoken Discourse Analysis in Aphasia

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Current practices in spoken discourse analysis in aphasia

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Introduction

Spoken discourse analysis is commonly employed in the assessment and treatment of people with aphasia (Brady et al., 2016; Bryant et al., 2016). However, there is no standardization in assessment, analysis, or reporting procedures for spoken discourse, thereby precluding comparisons across studies, replication of findings, and the establishment of a set of psychometrically sound and clinically relevant common data elements. An important first step is to identify current practices in acquiring, analyzing, and reporting spoken discourse in aphasia.

Methods

A mixed-methods survey was completed as part of the FOQUSAphasia Best Practices Task Force (Stark et al., 2020) and publicized internationally to researchers and clinicians who are involved in spoken discourse analysis in aphasia. Data were collected between September-November 2019.

Results and Discussion

Of the 201 individuals who consented to participate, 94% completed all mandatory questions. Compared to prior surveys (Bryant et al., 2017; Cruice et al., 2020), the current sample (see Table 1) included both speech-language pathologists and researchers representing different geographic regions, demographics, and a broad range of backgrounds and experiences (e.g., work settings, years working in aphasia, professional degrees).

Respondents most frequently used discourse analysis to describe aphasia symptoms (72.1%; N=165). Like Bryant et al. (2017), standardized aphasia assessments were most commonly used to collect discourse samples (74.8%, N=163). Most respondents collected 1-2 samples (41.5%), with an average sample length of 1-3 minutes (24%, N=147). Around 78% of respondents recorded samples (audio or video), and of those who did not record, around 60% transcribed in real time. Approximately 70% of respondents (N=133) frequently relied on clinical judgment-based analysis with fewer using computerized transcription systems. Respondents used a variety of raters and training procedures. In line with Bryant et al. (2017) and Cruice et al. (2020), barriers to utilizing

discourse analysis across clinical and research settings were common with the most common barrier being time (see Figure 1). Nearly 94% of respondents noted a lack of and need for psychometric properties and normative data on spoken discourse outcomes. Qualitative analyses of open-ended questions confirmed and expounded on these key findings. For example, in addition to time, respondents identified applying discourse protocols, norms, and psychometric properties to multilingual populations as a salient barrier.

Conclusions and Future Directions

This survey identified significant heterogeneity in discourse analysis procedures across clinical and research settings. An important step is the aggregation of pre-existing psychometric data into a single access portal, to overcome issues related to disparate reporting practices of critical data collection and analysis details essential for replication and reproducibility. A second critical step is the creation of and adherence to a set of best practice standards (or common data elements). A focus on psychometric properties and indeed on best practices will overcome some of the challenges inherent to implementation science. Third, time-efficient methods such as automated discourse analysis that increase accuracy and replicability and rely less on training and expertise must be explored further. Finally, there is a need to focus on establishing and validating discourse analysis procedures for multicultural and multilingual populations.

References

- Brady, M., Kelly, H., Godwin, J., Enderby, P., & Campbell, P. (2016). Speech and language therapy for aphasia following stroke. *Cochrane Database of Systematic Reviews*, 6. https://doi.org/10.1002/14651858.CD000425.pub4.www.cochranelibrary.com
- Bryant, L., Ferguson, A., & Spencer, E. (2016). Linguistic analysis of discourse in aphasia: A review of the literature. *Clinical Linguistics and Phonetics*, *30*(7), 489–518. https://doi.org/10.3109/02699206.2016.1145740
- Bryant, L., Spencer, E., & Ferguson, A. (2017). Clinical use of linguistic discourse analysis for the assessment of language in aphasia. *Aphasiology*, *31*(10), 1105–1126. https://doi.org/10.1080/02687038.2016.1239013
- Stark, B. C., Dutta, M., Murray, L. L., Bryant, L., Fromm, D., MacWhinney, B., ... & Sharma, S. (2020). Standardizing assessment of spoken discourse in aphasia: A working group with deliverables. *American journal of speech-language pathology*, 30(1S), 491-502.
- Cruice, M., Botting, N., Marshall, J., Boyle, M., Hersh, D., Pritchard, M., & Dipper, L. (2020). UK speech and language therapists ' views and reported practices of discourse analysis in aphasia rehabilitation. *International Journal of Language and Communication Disorders*, 1–26. https://doi.org/10.1111/1460-6984.12528

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Demographic Information	Responses	Respondents (n)
Locations	USA (55%) United Kingdom (7.4%) Australia (19.6%) New Zealand (0.5%) Canada (6.9%) Other (10.6%)	189
Roles (could select more than one)	Researcher (43.4%) Academic/teacher (22.2%) Speech-language pathologist (81%) Student (9%) Other (3.7%)	189
Age years	 < 25 years of age (4.2%) 26-40 years of age (47.6%) 41-55 years of age (30.7%) > 55 years of age (17.5%) 	189
Gender	Female (93.1%) Male (5.8%) Other (0.5%)	189
Terminal degree	Bachelor's (15.9%) Master's (51.3%) PhD (22.8%) Post-doctoral (5.3%) Clinical doctorate (1.1%) Other (3.7%)	189
Main area of data collection	Acute care (8%) Rehabilitation (23.4%) Community health (6.9%) Long-term care facility (3.2%) Private practice (5.3%) Hospital-based outpatient clinic (16%) University research lab or clinic (33%) Other (4.3%)	188
Years of working with people aphasia	with $M = 14.17$ (SD = 10.45), range 1-45	187

Table 1. Demographic information of survey respondents.



Figure 1. Barriers to data collection, transcription, analysis and interpretation.

Note. Respondents could select more than one barrier; * = No response option for 'data collection;' ^ = No response option for 'data interpretation.'