



Narrative Review on Diagnosis of Acquired Childhood Aphasia

Priyanka Nagaraj and Abhishek Budiguppe Panchakshari*

Centre of Speech Language Sciences, All India Institute of Speech and Hearing, Mysore, India

Submission: August 24, 2026; Published: September 18, 2026

*Corresponding author: Abhishek Budiguppe Panchakshari, Centre of Speech Language Sciences, All India Institute of Speech and Hearing, Mysore, India, Email: kumar_abhi004@yahoo.co.in

Abstract

Acquired Childhood Aphasia (ACA) is an acquired language disorder resulting from neurological injury in children with previously achieved language abilities. The diagnosis of ACA is challenging since language continues to develop throughout childhood, while clinical features and the pattern of recovery are highly variable. This narrative review examines clinical conceptualisation, linguistic manifestations, diagnostic challenges, and current assessment approaches in ACA. Literature indicates considerable heterogeneity in presentation, with difficulties extending beyond the fluency of speech to comprehension, semantic processing, verbal fluency, discourse, pragmatics, literacy, cognitive-communication, and academic functioning. Assessment practices also vary greatly, with limited availability of standardized, child-specific, and longitudinal measures. A significant diagnostic challenge is distinguishing acquired childhood aphasia from pre-existing difficulties and ongoing language development, particularly when premorbid history is limited or overt aphasic features improve over time. In conclusion, literature supports a multidimensional and developmentally sensitive approach which integrates language, discourse, literacy, cognitive-communication, and functional and academic outcomes.

Keywords: Acquired Childhood Aphasia; Literacy; Cognitive communication; Developmental language disorder; Children's acquired aphasia screening test

Abbreviations: ACA: Acquired Childhood Aphasia; DLD: Developmental Language Disorder; CAAST: Children's Acquired Aphasia Screening Test

Introduction

Aphasia is an acquired language disorder resulting from remarkable neurological damage that usually disrupts language skills/abilities that have already been developed. It may affect multiple components of language, such as comprehension, expression, naming, repetition, reading and writing. However, aphasia has been extensively studied in adults' population; its occurrence in childhood remains relatively under - investigated. Acquired aphasia in childhood is a less explored and highly controversial topic; the clinical and theoretical discussion on this issue has increased over the years. Using the term 'Aphasia' itself carries ambiguity or leads to so many unclear opinions and debates. The term aphasia has been used interchangeably with terms such as 'dysphasia' or "acquired language impairment/disorder" in the literature, suggesting the differences in conceptualizations and terminology across clinical and research contexts [1].

In recent times, there has been good harmony among clinicians who practice and researchers who agree that a complete or partial

loss of language abilities should be called aphasia, but a universally acceptable or standardised definition has not been established. Childhood aphasia differs from the developmental language disorder (DLD) because it represents an acquired language impairment resulting from neurological damage or disorders after the establishment of adequate language development to the age-appropriate level, whereas DLD is characterised by continuous difficulties in language acquisition and development that are not related to neurological events [2,3]. The neurological conditions that are correlated with acquired childhood aphasia are divergent. Childhood stroke represents the most extensively studied and reported cause, although other conditions such as traumatic brain injury, brain tumours, epilepsy, central nervous system infections, hypoxic ischaemic injury, etc.,

Clinical Heterogeneity and Evolution of ACA

In a recent scoping review, Gilardoni et al. [3] evaluated 46 studies concerning post-stroke causes of childhood aphasia, with

the majority consisting of single case and case series reports. The review reported significant variation in using terminology, diagnostic procedures, and clinical features and emphasises the need for validated child-specific assessment and management. The diagnosis of acquired childhood aphasia (ACA) is intricate due to the developmental nature of language. Children are continuously acquiring vocabulary, grammatical structures, and literacy, and higher-level language abilities. The clinical background of childhood aphasia has also changed drastically over time. Earlier descriptions highlighted that ACA is always nonfluent speech, mutism, and relatively rapid recovery.

However, Paquier & Dongen [4], reviewed clinical literature and demonstrated huge variability in the presentation of ACA. Their review identified difficulties involving auditory comprehension, naming, repetition, verbal fluency, paraphasia, neologisms, reading and writing. These findings give an assumption that ACA follows a predictable clinical pattern. The broader clinical framework proposed by Dennis [5], emphasises that ACA should be understood in relation to the underlying neurological pathology, developmental stage, characteristics of language, and prognosis. Literature review demonstrated that children can exhibit both fluent and non-fluent forms of ACA. This background or observation raises the question of accurate diagnosis, because it indicates that a narrow classification-based approach may fail to recognise the full range of language difficulties experienced by the children with difficulties.

Likewise, one of the longitudinal studies [6], demonstrated that children may show evident recovery from clinically identified aphasia while continuing to display lower language abilities than their peers; this raises the diagnostic question: How can ACA be identified when the language is still developing and when obvious aphasic symptoms improve, but underlying language difficulties persist? The present narrative study helps to examine the literature on the diagnosis of ACA, which describes the clinical conceptualization, pattern and challenges of diagnosis, developmental considerations and existing research gap.

Shifting perspectives on Childhood Aphasia

The conceptualization of ACA has evolved from an early view of the condition as mostly non-fluent and rapidly recovering, toward recognition of a more diverse condition. Paquier & Dongen [4], earlier challenged the traditional framework of ACA by documenting both existing types of fluent and non-fluent speech and language abilities. Van Hout, further contributed to the evolving trend by drawing attention towards clinical presentation, noticing similarities between ACA and Adult aphasia, while also highlighting the importance of possible linguistic and academic difficulties.

This shift was again supported by Van Dongen et al. [7], who found variability of fluent and non-fluent types in conversational speech and highlighted the need to assess language functions. Later, the study examined spontaneous conversational speech

in 24 children with acute acquired aphasia using 10 different speech characteristics such as phrase length, pauses, prosody, rate, effort, and articulation. Results showed that children with acquired aphasia exhibited both fluent and non-fluent patterns as observed in adults with aphasia. These remarkable findings challenged the traditional assumption that acquired childhood aphasia is universally non-fluent. Thus, the historical literature established two principles that continue to impact on diagnosis: acquired childhood aphasia is varied in nature, and its evaluation requires appropriate consideration of language functions in all possible contexts.

Language Profiles and Clinical Manifestations of Acquired Childhood

Acquired childhood Aphasia (ACA) displays varied linguistic features, with children having different combinations and severity of language impairment. Cooper & Flowers [8], reported that children with acquired neurological conditions showed difficulties in auditory comprehension, naming, sentence formulation, word fluency, reading and writing, with marked variation across individual children. These study findings suggested that residual impairment may extend beyond overt expressive difficulties. Barnes & Dennis [9], further evaluated difficulties in knowledge-based inference, suggesting the presence of difficulties in integrating linguistic information with contextual knowledge and deriving content/information that is not explicitly stated. Dennis et al. [5], reported that reduced verbal fluency, consisting of difficulties in lexical retrieval and generation of words, is influenced by injury severity, frontal lesion involvement, and age at neurological injury.

Chapman et al. [10], identified difficulties in narrative organisation, providing relevant information, maintaining the central idea, connecting ideas, elaborating information, and overall coherence, reflecting that difficulties may become more evident during connected speech than in isolated linguistic tasks. Recently, Peterson et al. [11], identified difficulties in Verbal fluency, narrative discourse, pragmatic language and academic skills following childhood-acquired basal ganglia stroke. All these collectively indicate that ACA can negatively influence multiple levels of language. This huge spectrum demands the need for assessment across multiple linguistic domains rather than relying primarily on fluency and overt speech characteristics.

Information from parents, teachers, school records/documentation, academic performance and any previous assessments can help to gather the child's earlier level of language functioning and provide a basis for evaluating the subsequent decline. This is particularly necessary when post-injury language performance could influence either a pre-existing developmental difficulty or an acquired impairment. Appropriate identification of this change/pattern is essential for appropriate differential diagnosis, formulation of individualised intervention goals, and monitoring the recovery of language skills over time.

Current Assessment Approaches in Acquired Childhood Aphasia

The literature review indicated that assessment of acquired childhood aphasia (ACA) has traditionally depended on a list of standardized language tools, aphasia batteries, and developmental language assessments and qualitative evaluation of spontaneous speech, instead of a single existing diagnostic approach. In recent times, it indicates that the varied factors that are related to assessment have persisted rather than been resolved. In the scoping review of post-stroke ACA, Gilardone et al. [3], evidently noticed substantial heterogeneity in the assessment approaches, with using developmental language assessment and adult aphasia tools that are originally developed for adults. The study also observed that the existing literature findings are based on case reports and case series, with relatively few observational, original or systematic review studies. Inevitably, there is currently no consistently adopted assessment framework or standardised diagnosis battery for childhood aphasia.

Among the individual studies that have been done till now, they have only focused on receptive and expressive language evaluation in childhood aphasia, but few of the other studies have also reported other features such as paraphasia, neologism, logorrhea, impairment in reading and writing etc., So, to evaluate this, the specific availability of a tool or standardized tool is necessary. In the same instance, the availability of the assessment tool has an essential limitation. The children's acquired aphasia screening test (CAAST) was specifically developed to assess linguistic and non-linguistic functions in children aged approximately 3 – 7 years, representing an early attempt to provide a child-specific assessment approach. Also, it was normed on 180 healthy children. Whurr & Evans [12], developed CAAST based on a sensory motor input/ output multimodality framework, and its assessment was considerably broader than the conventional language screening tools. The test includes 25 subtests, in that 12 domains address comprehension and 13 domains address production.

However, the CAAST was designed primarily for children in the younger age, has limitations in its applicability across later childhood or adolescence. At the same time, the variability seen in the measures that are used across the studies that have been done till now indicates that the field has identified the relevant language domains which need to be assessed more clearly than established ones, and a standardised method for measuring them. Hence, this can be considered a central limitation in the diagnosis of ACA. The necessity of this broader perspective is also apparent in studies examining the language outcomes following childhood stroke. A large clinical series examining language cognition and school performance outcomes found impairments across receptive and expressive language, semantic and syntactic abilities, with word-finding difficulties; importantly, school or academic performance-based outcomes were strongly associated with language and cognitive performance [13].

Avila et al. [14] reported constant difficulties in semantic processing among children who had ischemic stroke. These difficulties suggest that the effects of childhood stroke may extend beyond basic language impairment and affect the child's ability to access, organize, and use words efficiently. Importantly, the persistence of semantic difficulties may have a broader impact on vocabulary development, comprehension, classroom learning, acquisition of new language and academic knowledge, particularly as linguistic demand increases with age. These findings suggest that assessment of ACA should be considered within the context of a child's educational trajectory rather than restricted to whether basic language abilities fall within age-based norms. A Child may regain adequate conversational language but persist in having trouble with increasingly complex reading comprehension, written expression, subject-specific vocabulary or academic performance. However, compared with spoken language, literacy and academic language have received less systematic attention in ACA research.

This represents an important research gap because some consequences may become obvious only when educational demands exceed the child's developing linguistic resources. A further perspective arising from the current literature is that connected language may provide a more sensitive indication of residual communication impairment than isolated linguistic tasks. This is specifically relevant in childhood because communication involves conversation, story narration, classroom interaction and peer communication, all of which require the integration of multiple linguistic and cognitive processes. Chapman et al. & Peterson et al. [10], gathered evidence of discourse difficulties in children with stroke. Detailed analysis identified difficulties in verbal fluency, narrative, pragmatic skills and academic performance, and many of these difficulties were not reflected in formal diagnostic classifications, leading the researchers to argue for integration of quantitative and qualitative information when evaluating language skills after childhood stroke.

Also, larger consideration of cognitive communication abilities along with language, the large childhood stroke cohort examining language, cognitive, and school outcomes reported impairment in working memory and processing speed in addition to linguistic abilities, with academic outcomes strongly related to language and Intellectual quotient. The International Pediatric Stroke Organization's consensus-based toolkit identified language, cognitive function, behaviour, adaptive functioning, quality of life, and global functioning as relevant outcome domains and highlighted the variability in the psychometric strength and clinical feasibility of available measures. This available evidence is essential for ACA because it suggests that language cannot always be interpreted independently from the child's overall neurocognitive functioning. At the same time, cognitive assessment should not replace linguistic assessment or lead to all communication difficulties being attributed to cognition; rather, the literature supports a differential and integrative

interpretation in which linguistic, cognitive, speech motor and functional findings are considered together.

Differential diagnosis of ACA extends beyond distinguishing it from developmental language disorder. The post-injury communication profile may overlap with cognitive communication difficulties, learning problems, speech motor disorders or any other neurogenic language conditions. Therefore, interpretation requires consideration of multiple things rather than depending solely on language scores. A further limitation is the lack of longitudinal and developmentally sensitive measurement. Overall, the literature review shows the major gap in the absence of developmentally sensitive and longitudinal diagnostic criteria capable of distinguishing pre-existing difficulties, acquired language change and ongoing developmental progression.

Developmental neuroplasticity has traditionally been considered an advantage for children recovering from acquired brain injury; evidence indicates that reorganization does not necessarily result in normal language outcome. Bartha-Doering et al. [15], found that atypical language representation following childhood stroke was associated with poor language performance, suggesting that functional reorganization may support recovery. Longitudinal evidence from Heimgärtner et al. [6], further showed that children who appear to have recovered from clinically evident aphasia could continue to demonstrate lower language performance than typically developing peers. These findings suggest that apparent clinical recovery may mask residual difficulties, creating a potential risk of underdiagnosis when follow-up is discontinued after overt symptoms are resolved.

Conclusion

Overall, the literature review indicates that diagnosis of ACA has shifted from a narrow, symptom-based approach, primarily focused on non-fluent speech, mutism, and overt language impairment, towards a more multidimensional and developmentally informed perspective. Current literature evidence demonstrates considerable variability in the linguistic and functional presentation of ACA, with difficulties in comprehension, lexical-semantic processing, verbal fluency, discourse, pragmatics, literacy, cognitive-communication abilities, and academic functioning. However, substantial heterogeneity remains in terminology, assessment procedures, and diagnostic practices, with limited availability of standardized, child-specific, and longitudinal assessment approaches.

A major diagnostic challenge is therefore differentiating acquired language change from pre-existing developmental difficulties and ongoing language development, particularly when reliable information regarding the child's premorbid language abilities is unavailable. Furthermore, apparent recovery of overt aphasia features does not necessarily indicate complete normalization of language functioning, highlighting the possibility of subtle difficulties being overlooked as developmental and

academic demand increases.

Future Directions

Future research should consider standardized, developmentally sensitive, and diagnostic frameworks that integrate core language, literacy, discourse, cognitive communication, functional communication and academic skills. Larger multicenter studies across diverse neurological causes together with culturally and linguistically appropriate measures for multilingual children are needed to improve diagnostic accuracy and reduce the risk of subtle acquired language difficulties being overlooked.

References

1. Catroppa C, Anderson V (2004) Recovery and predictors of language skills two years following pediatric traumatic brain injury. *Brain and Language* 88(1): 68-78.
2. Bishop DVM, Snowling MJ, Thompson PA, Greenhalgh T, and the CATALISE-2 consortium (2017) Phase 2 of CATALISE: A multinational and multidisciplinary Delphi consensus study of problems with language development: Terminology. *Journal of Child Psychology and Psychiatry* 58(10): 1068-1080.
3. Gilardone G, Viganò M, Cassinelli D, Fumagalli FM, Calvo I, et al. (2023) Post-stroke acquired childhood aphasia. A scoping review. *Child Neuropsychology* 29(8): 1268-1293.
4. Paquier PF, Dongen HR (2009) Review of research on the clinical presentation of acquired childhood aphasia. *Acta Neurologica Scandinavica* 93(6): 428-436.
5. Dennis M (2010) Language disorders in children with central nervous system injury. *Journal of Clinical and Experimental Neuropsychology* 32(4): 417-432.
6. Heimgärtner M, Gschaidmeier A, Schnauffer L, Staudt M, Wilke M, et al. (2024) The long-term negative impact of childhood stroke on language. *Frontiers in Pediatrics* 12: 1338855.
7. Van Dongen HR, Paquier PF, Creten WL, Van Borsel J, Catsman-Berrevuets CE (2001) Clinical Evaluation of Conversational Speech Fluency in the Acute Phase of Acquired Childhood Aphasia: Does a Fluency/Non-fluency Dichotomy Exist? *Journal of Child Neurology* 16(5): 345-351.
8. Cooper JA, Flowers CR (1987) Children with a History of Acquired Aphasia: Residual Language and Academic Impairments. *Journal of Speech and Hearing Disorders* 52(3): 251-262.
9. Barnes MA, Dennis M (2001) Knowledge-Based Inferencing after Childhood Head Injury. *Brain and Language* 76(3): 253-265.
10. Chapman SB, Max JE, Gamino JF, McGlothlin JH, Cliff SN (2003) Discourse plasticity in children after stroke: Age at injury and lesion effects. *Pediatric Neurology* 29(1): 34-41.
11. Peterson RK, McDonald KP, Vincent M, Williams TS, Dlamini N, Westmacott R (2021) Characterizing language outcomes following childhood basal ganglia stroke. *Applied Neuropsychology: Child* 10(1): 14-25.
12. Whurr R, Evans S (1998) Children's Acquired Aphasia Screening Test. *International Journal of Language & Communication Disorders* 33(S1): 343-344.
13. Chevignard M, De Montferrand C, Yvon-Chaou E, Mardaye A, Tiberghien A, et al. (2016) Language, cognitive and school outcomes following childhood stroke. *Annals of Physical and Rehabilitation Medicine* 59: e2-e3.

14. Avila L, Riesgo R, Pedroso F, Goldani M, Danesi M, et al. (2010) Language and Focal Brain Lesion in Childhood. *Journal of Child Neurology* 25(7): 829-833.
15. Bartha-Doering L, Novak A, Kollndorfer K, Schuler AL, Kasprian G, et al. (2019) Atypical language representation is unfavorable for language abilities following childhood stroke. *European Journal of Paediatric Neurology* 23(1): 102-116.



This work is licensed under Creative Commons Attribution 4.0 License
DOI: [10.19080/GJIDD.2026.15.555903](https://doi.org/10.19080/GJIDD.2026.15.555903)

**Your next submission with Juniper Publishers
will reach you the below assets**

- Quality Editorial service
- Swift Peer Review
- Reprints availability
- E-prints Service
- Manuscript Podcast for convenient understanding
- Global attainment for your research
- Manuscript accessibility in different formats

(Pdf, E-pub, Full Text, Audio)

- Unceasing customer service

Track the below URL for one-step submission
<https://juniperpublishers.com/online-submission.php>