

AN INVESTIGATION OF STUTTERING DISORDER AMONG LEARNERS IN A MULTILINGUAL SPECIAL SCHOOL IN LAFIA, NASARAWA STATE, NIGERIA

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Abstract

This study examines the prevalence, characteristics, and educational implications of stuttering disorder among learners at the Government Comprehensive Special School, Lafia, Nasarawa State, Nigeria. Guided by the Demands and Capacities Model of stuttering, the study adopts a mixed-method descriptive survey design to explore how linguistic, cognitive, and environmental demands influence speech fluency in a multilingual school context. Data were collected through the Stuttering Severity Instrument Fourth Edition (SSI-4), structured classroom observations, spontaneous speech sampling, and semi-structured interviews. Quantitative data were analysed using descriptive statistics, while qualitative data were thematically analysed to contextualise fluency patterns and intervention practices. Findings indicate that most learners exhibit moderate stuttering severity, with disfluencies more pronounced in English than in indigenous languages. Limited access to speech-language therapy and reliance on informal classroom strategies further exacerbate fluency difficulties. The study provides context-specific evidence on stuttering in a Nigerian special-school setting and highlights the need for language-sensitive interventions, professional training, and integrated speech-therapy services in multilingual classrooms.

Keywords: Stuttering, Fluency Disorder, Multilingualism, Psycholinguistics, Speech-Language Pathology, Special Education.

Introduction

Stuttering, also known as childhood-onset fluency disorder, is widely recognised as a neurodevelopmental condition involving involuntary disruptions in the forward flow of speech (Bloodstein & Bernstein, 2019). These disruptions typically manifest as repetitions, prolongations, and blocks, which interfere with smooth verbal expression, such disfluencies can impose significant communicative challenges for children, affecting participation in academic tasks, peer interactions, and classroom discussions. Guitar (2014) similarly emphasises that stuttering often results in increased anxiety and reduced communicative confidence, thereby heightening academic and social vulnerability. In multilingual societies such as Nigeria, learners navigate multiple phonological and syntactic systems simultaneously, increasing cognitive load and further predisposing them to fluency breakdowns Bamgbose (1991) and Adegbija (2004).

The contextual realities of the Government Comprehensive Special School, Lafia, amplify these communicative challenges. Government Comprehensive Special School, Lafia functions as a specialised educational institution designed to meet the needs of learners with disabilities through modified curricula, tailored instructional approaches, and structured learning environments aligned with learners' functional capacities. Teaching is provided by personnel with training in special education; however, the school continues to experience ongoing challenges such as staff shortages, limited access to specialist support services, and inadequate therapeutic facilities, particularly in the area of speech and language intervention (Ibrahim, 2022). These limitations hinder the regular and effective application of evidence-based practices for addressing communication disorders.

From a linguistic perspective, the school mirrors the multilingual setting of Nasarawa State.

Learners routinely engage with several languages, using English as the formal medium of instruction while also communicating in indigenous languages such as Hausa, Eggon, Alago, Tiv, and Gwandara in informal contexts. Exposure to multiple linguistic systems increases processing demands for learners with speech and fluency difficulties, thereby making the school an appropriate environment for exploring the relationship between linguistic complexity and stuttering severity (Ntuli & Pretorius, 2018; Yaruss & Reardon, 2020).

In addition, Government Comprehensive Special School, Lafia has drawn the attention of policymakers and education stakeholders due to concerns surrounding workforce stability and the adequacy of service provision. Interventions by the Nasarawa State House of Assembly have emphasised the necessity of improving institutional support structures and working conditions, pointing to broader systemic issues that influence learner outcomes (Nasarawa State House of Assembly, 2023). Against this backdrop, the school provides a valuable real-life setting for examining stuttering within special education, where multilingual exposure, limited professional resources, and instructional demands converge.

The school, like many special institutions in low-resource regions, operates with limited funding, inadequate professional personnel, and restricted access to speech-language therapy. According to Okoh (2013), systemic underinvestment in special education across Nigeria contributes to late diagnosis, insufficient intervention, and a high burden on untrained teachers. Research by Ntuli and Pretorius (2018) confirms that multilingual children who stutter often demonstrate higher disfluency rates in linguistically demanding or less familiar languages, highlighting the interaction between linguistic load and speech motor planning. Cultural and societal perceptions further influence the identification and treatment of stuttering in Lafia. Wingate (1964) notes that societal beliefs can lead to misconceptions about the causes of stuttering, often attributing it to emotional or behavioral issues. In Nigeria, Eze (2015) reports persistent stigma surrounding speech disorders,

which can discourage families from seeking early professional assessment. Environmental and emotional pressures may interact with biological predispositions, shaping both the severity and persistence of stuttering (Smith & Weber, 2017).

Despite the complex interplay of linguistic, cultural, and institutional factors, there is limited research on how stuttering manifests among learners in multilingual special school settings in Nigeria. In particular, little is known about how institutional resources, pedagogical practices, and socio-cultural dynamics influence learners' communication patterns in schools like the Government Comprehensive Special School, Lafia. This knowledge gap hinders the design of effective interventions tailored to the unique needs of this population. Given these considerations, a multidisciplinary approach that integrates psycholinguistic, motoric, emotional, and environmental dimensions is necessary to fully understand stuttering in this context (Conture, 2001). This seminar, therefore, examines the manifestation of stuttering among learners in the school, with the aim of generating evidence-based insights to guide intervention strategies and improve communicative competence among learners who stutter.

Objectives of the Study

The main objective of this study is to investigate stuttering disorder among learners in the Government Comprehensive Special School, Lafia, Nasarawa State, Nigeria, within a multilingual educational context. Specifically, the study aim to:

1. examine the nature and patterns of stuttering manifested by learners in the Government Comprehensive Special School, Lafia.
2. analyse the influence of multilingualism on the severity and frequency of stuttering among learners in the school.
3. explore the institutional support structures and pedagogical practices available for managing stuttering disorder in the school.

Theoretical Framework

This study was anchored on Ratner's Psycholinguistic Theory of Stuttering, which

conceptualises stuttering as a breakdown in speech fluency resulting from disruptions in language planning and speech production processes. The theory posits that fluent speech depends on the efficient coordination of cognitive, linguistic, and motoric processes. When linguistic demands exceed an individual's processing capacity particularly during complex language formulation—speech planning becomes unstable, leading to disfluencies such as repetitions, prolongations, and blocks (Bernstein 1997). A central principle of the theory is that increased cognitive and linguistic load, such as that imposed by multilingual language use, heightens the likelihood of fluency breakdowns. This perspective is especially relevant in multilingual educational contexts where learners must navigate multiple phonological and syntactic systems.

In the present study, Ratner's theory was applied to explain how the multilingual environment of the Government Comprehensive Special School, Lafia, and limited therapeutic support may have increased cognitive load during speech production, thereby exacerbating stuttering among learners. The theory also provided a framework for interpreting variations in fluency across different languages and communicative contexts, as well as the interaction between environmental demands and learners' speech production capacities.

Conceptual Review

Stuttering

Stuttering is widely conceptualised as a speech fluency disorder characterised by involuntary interruptions in the forward flow of speech. Scholars such as Wingate (1964) and Guitar (2014) describe it as a multidimensional condition involving both core disfluencies and accompanying physical and emotional reactions. Core manifestations include sound, syllable, or word repetitions; audible or silent prolongations; and sudden blocks that temporarily halt speech production. These disruptions interfere with the timing and coordination required for smooth articulation. In addition to these primary behaviours, many individuals who stutter develop secondary behaviours such as eye blinking, facial tension, or avoidance of specific words or speaking situations, behaviours learned as coping

responses to prevent or escape moments of stuttering (Bloodstein & Bernstein 2008). Stuttering severity varies across individuals and contexts, with episodes typically intensifying under conditions of emotional arousal, increased cognitive demand, or social pressure.

The nature of stuttering is further influenced by developmental, neurological, psychological, and environmental factors. Contemporary scholarship highlights stuttering as a neurodevelopmental disorder with strong genetic and neurophysiological bases. Research by Smith and Weber (2017) shows that disruptions in speech-motor timing and neural connectivity underlie many stuttering behaviours. However, environmental triggers such as communication expectations, classroom pressure, and linguistic complexity significantly shape how the disorder is expressed in real-life contexts. Children in special school settings, including learners at Government Comprehensive Special School Lafia, may experience heightened fluency difficulties due to diverse learning needs, limited access to therapeutic support, and socio-emotional challenges documented in the institution. These interacting factors make stuttering a dynamic condition that requires holistic conceptualisation.

Psycholinguistic Perspectives

From a psycholinguistic perspective, stuttering is viewed as a breakdown in the cognitive processes that support fluent speech production. Levelt's (1989) model of speech production posits that fluency depends on the efficient coordination of conceptual preparation, lexical retrieval, phonological encoding, and motor planning. Disruptions at any of these stages may result in observable disfluencies, such as repetitions, prolongations, or blocks. Extending this view, Postma and Kolk (1993) suggested that stuttering may arise from monitoring overload, whereby speakers attempt to internally correct speech-planning errors before articulation, leading to overt disruptions. Empirical evidence further indicates that increased cognitive load—caused by linguistically complex tasks or time pressure intensifies stuttering by taxing working memory and language encoding processes (Bosshardt, 2006). Within educational settings characterised by

high linguistic demands and limited specialised support, such as multilingual special schools, these psycholinguistic vulnerabilities may be further amplified. When the cognitive demands of language planning and motor execution exceed learners' processing capacities, fluency breakdowns become more frequent. This framework provides a useful explanatory basis for understanding the manifestation of stuttering in complex learning environments and reinforces the need for language-sensitive and cognitively informed intervention strategies.

Stuttering in Multilingual Contexts

The multilingual environment of Lafia has important implications for understanding stuttering among learners at the Government Comprehensive Special School. The region is characterised by extensive linguistic diversity, with languages such as Alago, Eggon, Hausa, Tiv, Gwandara, and English used in both everyday communication and formal instruction. Sociolinguistic research has long established that multilingualism shapes language acquisition, processing, and communicative performance (Bamgbose, 1991; Adegbiya, 2004). For children who stutter, managing multiple phonological and syntactic systems can increase cognitive and linguistic demands, thereby heightening fluency breakdowns. Differences in sound structures, grammatical patterns, and prosody across languages may result in language-specific variations in stuttering severity. Empirical evidence indicates that multilingual children often demonstrate higher disfluency rates in less dominant or linguistically demanding languages (Ntuli & Pretorius, 2018).

In addition, the expectation to perform academically in English the official language of instruction may intensify communicative pressure and anxiety, further exacerbating stuttering. In contrast, greater proficiency in indigenous languages may reduce linguistic load and support improved fluency. Cultural attitudes toward speech disorders also influence how stuttering is perceived and managed within multilingual communities, affecting help-seeking behaviour and classroom responses. These factors underscore the need for culturally and linguistically

responsive assessment and intervention strategies for learners who stutter in multilingual educational settings.

Theoretical Review

This study is grounded in developmental and psycholinguistic theories of stuttering that explain fluency breakdowns as the outcome of interactions between speech-motor control, linguistic processing, and environmental demands. Given the descriptive and observational nature of the study, theoretical perspectives that link contextual pressures to observable speech behaviours were prioritised.

Neurophysiological Perspective on Stuttering

Neurophysiological accounts of stuttering attribute fluency disruptions to atypical neural functioning in brain regions responsible for speech planning, timing, and motor execution. Neuroimaging studies indicate that individuals who stutter often show reduced activation in left-hemispheric speech-motor areas, including Broca's area, the supplementary motor area, and the premotor cortex, alongside compensatory right-hemisphere involvement (Cykowski et al., 2010). These atypical activation patterns disrupt the precise temporal coordination required for fluent speech, resulting in repetitions, prolongations, and blocks.

Smith and Weber (2017) further explain stuttering as a consequence of impaired sensorimotor integration, where breakdowns occur between linguistic encoding and motor execution. Although this study did not employ neuroimaging techniques, neurophysiological theory provides a foundational explanation for the speech-motor instability reflected in the observable fluency patterns documented through speech sampling and classroom observation.

Demands and Capacities Model (Starkweather, 1997)

The Demands and Capacities Model (DCM) offers the primary explanatory framework for this study. The model proposes that stuttering occurs when communicative demands exceed a child's capacities for speech-motor control, linguistic formulation, cognitive processing, or emotional regulation (Starkweather, 1997). Such demands may include rapid turn-taking, complex

language tasks, time pressure, or heightened performance expectations.

This framework is particularly applicable to the multilingual and resource-limited context of the Government Comprehensive Special School, Lafia. Learners are required to operate across multiple languages while coping with limited access to specialised speech-language services and instructional support. Multilingual exposure increases linguistic processing demands, while classroom expectations and social pressure further tax learners' speech capacities. When these demands surpass available capacities, fluency breakdowns become more frequent.

In this study, the DCM directly informed data interpretation by linking observed stuttering severity, language-specific fluency variation, and classroom interaction patterns to contextual demands rather than to fixed individual deficits. The model thus provides a coherent, context-sensitive explanation for stuttering behaviours observed among learners in the school.

Multifactorial Dynamic Pathways Theory

The Multifactorial Dynamic Pathways Theory conceptualises stuttering as the outcome of dynamic interactions among linguistic, cognitive, emotional, and environmental factors rather than as a single-cause disorder (Smith & Kelly, 1997). According to this perspective, fluency breakdown emerges when multiple vulnerabilities converge, with the relative influence of each factor varying across individuals and contexts. Stuttering is therefore understood as a developmentally variable condition shaped by both internal capacities and external communicative pressures. In the present study, this theory is used only as a supporting framework to contextualise observed variability in stuttering severity across learners and speaking situations. The study did not investigate genetic, neurological, or longitudinal developmental pathways; therefore, application of the theory was limited to explaining how classroom demands, multilingual language use, emotional pressure, and instructional context interacted to influence fluency patterns. By acknowledging stuttering as a context-sensitive and multifactorial phenomenon, the theory complements the Demands and Capacities Model

without extending beyond the empirical scope of the study. It thus provides a cautious interpretive lens for understanding individual differences in fluency outcomes among learners in a multilingual special-school setting.

Empirical Review

Empirical research on stuttering has expanded considerably over the past five decades, providing robust evidence on the linguistic, cognitive, physiological, emotional, and socio-environmental factors that influence fluency disorders in children. Contemporary studies consistently demonstrate that stuttering is a multifaceted developmental disorder rather than a purely motor speech impairment.

Linguistic complexity has been identified as a major trigger for stuttering episodes. Bloodstein and Bernstein (2019) report that children who stutter exhibit significantly higher rates of disfluency during syntactically complex utterances and linguistically demanding tasks. Increased grammatical load, longer sentence structures, and rapid lexical retrieval demands place pressure on speech planning systems, increasing the likelihood of fluency breakdown. These findings support psycholinguistic accounts that link stuttering frequency to language formulation demands. Further empirical support for a psycholinguistic perspective is provided by Yaruss and Reardon (2020), who found that many children who stutter present with delays in lexical access and reduced syntactic organisation. Their study demonstrates that linguistic formulation difficulties often coexist with speech-motor instability, reinforcing the view that stuttering reflects an interaction between language planning and motor execution rather than an isolated speech disorder. Multilingualism has also been shown to influence fluency outcomes.

Ntuli and Pretorius (2018), in a study of multilingual learners in South Africa, observed increased stuttering frequency when children communicated in a second or less dominant language. The authors attribute this to heightened cognitive and linguistic demands associated with managing multiple phonological and syntactic systems. These findings are particularly relevant to multilingual educational contexts in Nigeria,

including Lafia, where learners routinely navigate English alongside indigenous languages. Such linguistic complexity may intensify fluency challenges for children who stutter.

Physiological and motor-based explanations are well documented in the empirical literature. Guitar (2014) reports that children who stutter often display timing deficits in speech-motor coordination, particularly in the synchronisation between linguistic planning and articulatory execution. Neurophysiological studies further indicate atypical activation patterns in brain regions associated with speech production and motor control, supporting the view that stuttering involves disruptions in neural timing and coordination.

Genetic factors have also been empirically established as significant contributors to stuttering. Ambrose et al. (2015) found that approximately 60% of children who stutter have a family history of fluency disorders, suggesting a strong hereditary component. Genetic vulnerability does not determine stuttering in isolation but interacts with linguistic, emotional, and environmental factors to influence persistence and severity. Emotional and cognitive variables further shape fluency outcomes. Smith and Weber (2017) demonstrate that heightened emotional arousal, including anxiety and communicative pressure, can exacerbate stuttering by overloading cognitive and speech-planning resources. Their findings indicate that fluency breakdown is more likely when emotional demands exceed a child's regulatory and processing capacities.

Sociocultural and educational factors remain critical, particularly in developing contexts. Olawoyin and Adegbite (2020) report that stuttering in Nigerian classrooms is frequently misunderstood and misinterpreted as behavioural difficulty or lack of discipline, contributing to stigma and delayed intervention. Such misconceptions limit early identification and restrict access to appropriate speech-language support services.

Empirical studies from Northern Nigeria further highlight systemic challenges affecting fluency intervention. Ibrahim (2022) documents shortages of trained speech-language therapists,

limited instructional materials, and inadequate funding in public special schools. These institutional constraints significantly affect the assessment and management of stuttering among learners.

Intervention-focused research emphasises the importance of teacher competence. Onuora and Eze (2020) found that teacher training in speech facilitation strategies and inclusive communication practices significantly improves fluency outcomes for learners who stutter. Their findings underscore the need for professional development in psycholinguistics and speech-language support within school settings. Overall, the empirical literature portrays stuttering as a developmentally complex disorder shaped by interacting linguistic, cognitive, physiological, emotional, and environmental factors. These findings provide a strong empirical foundation for examining stuttering among learners in Government Comprehensive Special School, Lafia, within a psycholinguistic and educational framework.

Methodology

This study employed a descriptive survey research design, complemented by observational and interview methods to capture both quantitative and qualitative dimensions of stuttering among learners. The descriptive survey design was chosen because it allows for systematic documentation and analysis of existing phenomena without experimental manipulation, making it particularly suitable for exploring speech disorders in naturalistic classroom settings. By combining surveys with direct observations and semi-structured interviews, the study was able to triangulate data sources, enhancing the reliability and depth of insights into learners' fluency patterns, contextual influences, and the effectiveness of teacher intervention strategies.

The population comprised learners identified as experiencing fluency problems. This population was deemed appropriate because the school serves as one of the few state-run institutions for learners with special needs in the region, providing access to a concentrated group of children whose communication challenges can be systematically studied. By focusing on this

population, the study aimed to provide insights that are contextually relevant and directly applicable to improving educational and therapeutic practices within the school.

A purposive sampling technique was employed to select participants who could provide the most relevant data for the study. A purposive sampling technique was employed to select participants who were directly relevant to the study. The sample consisted of 30 learners with observable stuttering characteristics and 10 teachers who had direct instructional contact with these learners and 5 caregivers. This sampling approach ensured that participants possessed first-hand experience relevant to the phenomenon under investigation. This combination of participants allowed the study to capture multiple perspectives on the nature, severity, and management of stuttering, ensuring a holistic understanding of the phenomenon. The selection of teachers and caregivers was intended to provide contextual and experiential insights that complement the objective assessment of learners' speech performance.

Data were collected using a combination of standardized and researcher-developed instruments. The Stuttering Severity Instrument (SSI-4) was used to assess the frequency, duration, and physical concomitants of stuttering among learners. A structured classroom observation checklist enabled systematic documentation of speech behaviours, classroom interactions, and the implementation of teacher strategies. Additionally, semi-structured interview guides were administered to teachers and caregivers to explore their perceptions of stuttering, the challenges faced

in supporting learners, and the effectiveness of existing intervention approaches. The use of multiple instruments ensured comprehensive coverage of both objective and subjective aspects of stuttering.

Data collection involved a combination of direct speech analysis, reading tasks, spontaneous speech sampling, and interviews. Learners were observed during structured reading exercises and naturalistic classroom interactions to capture the occurrence and types of disfluencies, including repetitions, prolongations, and blocks. Spontaneous speech samples were recorded to assess fluency in more informal contexts. Teachers and caregivers were interviewed to gain insights into intervention strategies, perceived challenges, and learner progress. Ethical considerations, such as informed consent and confidentiality, were strictly adhered to throughout the data collection process.

Quantitative data obtained from the SSI-4 and observation checklists were analysed using descriptive statistics, including frequencies, percentages, and cross-tabulations, to summarise stuttering severity, types of disfluencies, and contextual influences. Qualitative data from interviews were analysed thematically, allowing for the identification of recurring patterns, perceptions, and experiences related to stuttering management. By integrating quantitative and qualitative analyses, the study was able to provide a nuanced understanding of stuttering among learners in the school, highlighting both measurable outcomes and the lived experiences of learners, teachers, and caregivers.

Data Presentation and Analysis

This section presents and analyses both quantitative and qualitative data generated from the Stuttering Severity Instrument (SSI-4), classroom observations, spontaneous speech samples, and semi-structured interviews with teachers and caregivers. Quantitative data are presented in tables, while qualitative findings are integrated through explanatory notes and thematic commentary.

Table 1: Stuttering Severity Levels

Severity	Frequency	Percentage
Mild	6	30%
Moderate	9	45%
Severe	5	25%

Table 1 shows that the majority of learners (45%) exhibited moderate stuttering severity, as measured using the SSI-4. Classroom observations revealed that these learners experienced frequent repetitions and occasional blocks, particularly during oral reading and question-and-answer sessions. Teachers interviewed reported that learners in the severe category struggled to complete verbal tasks without interruption, often avoiding speaking in class due to fear of ridicule. This indicates that stuttering severity significantly affects classroom participation.

Table 2: Types of Disfluencies Observed

Disfluency Type	Count	Dominance
Sound repetitions	45	High
Prolongations	28	Medium
Blocks	17	Medium
Secondary movements	12	Low

As shown in Table 2, sound repetitions were the most frequently observed disfluency type. Observation records indicated that repetitions occurred mainly at word onsets, especially during responses that required immediate answers. Prolongations and blocks were more evident during longer utterances and reading tasks. Secondary movements, such as eye blinking and facial tension, were less frequent but were more common among learners with severe stuttering. These findings corroborate interview reports in which teachers described repetitions as the most noticeable fluency challenge in classroom interactions.

Table 3: Influence of Language Context on Fluency

Language	Fluency Level	Observation
English	Low	High disfluency during reading
Hausa	Medium	Moderate disfluency
Mother tongue	High	Least stuttering episodes

Table 3 indicates that learners demonstrated greater fluency in their mother tongues than English. Observational data showed that stuttering increased during English reading and formal speech tasks, while spontaneous conversations in indigenous languages were relatively fluent. Teachers attributed this pattern to increased linguistic and cognitive demands associated with English as the language of instruction. Interview data further revealed that learners appeared more relaxed and confident when speaking their first languages, supporting the Demands and Capacities Model, which posits that fluency breakdown occurs when communicative demands exceed a speaker's capacities.

Table 4: Teacher Intervention Strategies

Strategy	Usage	Effectiveness
Slow speech modelling	High	Moderate
Repetition	High	Moderate
Visual cues	Medium	Moderate
Access to a speech therapist	Low	Low

Table 4 shows that teachers frequently used slow speech modelling and repetition, although their effectiveness was rated as only moderate. Qualitative interview data revealed that most teachers relied on self-developed strategies due to the absence of trained speech-language therapists in the school. Teachers expressed uncertainty about evidence-based fluency intervention techniques, while caregivers reported inconsistent follow-up at home. The low availability of professional therapy services highlights a critical gap in institutional support for learners who stutter.

Discussion of Findings

The findings of this study indicate that stuttering among learners in the Government Comprehensive Special School, Lafia, is strongly influenced by both linguistic and educational contextual factors. The majority of learners exhibited moderate stuttering severity, suggesting that their fluency challenges are sufficiently pronounced to interfere with classroom participation and academic engagement. This aligns with Bloodstein and Ratner (2019), who emphasise that speech disruptions are not merely surface behaviours but are closely tied to underlying cognitive-linguistic processes that can affect learning outcomes. Moderate stuttering severity highlights the need for interventions that address not only communication skills but also associated psychosocial impacts, such as anxiety, reduced self-confidence, and social withdrawal.

The multilingual environment of the school emerged as a critical factor influencing stuttering patterns. Learners demonstrated the highest frequency of disfluencies in English, while their mother tongues elicited comparatively fewer speech disruptions. This observation resonates with psycholinguistic and linguistic-load theories, which posit that increased cognitive demands in less familiar or structurally complex languages can exacerbate speech disfluencies (Ntuli & Pretorius, 2018; Yaruss & Reardon, 2020). In Lafia, learners navigate multiple linguistic systems, including Hausa, Alago, Eggon, Tiv, and Gwandara, which impose additional processing demands during speech production. The observed pattern supports the view that language-specific demands interact with individual speech-motor capacities, resulting in variable stuttering severity across languages. These findings underscore the importance of language-sensitive assessments and interventions tailored to the multilingual context.

Teacher intervention strategies primarily involved slow speech modelling, repetition, and visual cues. While these strategies demonstrated moderate effectiveness in supporting learners' fluency, their impact was constrained by the limited access to trained speech-language therapists. This is consistent with Ibrahim (2022), who documented that insufficient professional support in public special schools restricts the implementation of evidence-based interventions for children with fluency disorders. The findings also suggest that teacher-led strategies, although valuable, cannot fully compensate for systemic gaps in specialized support services.

The interplay between environmental, linguistic, and educational factors aligns with the Multifactorial Dynamic Pathways Theory, which emphasises that stuttering arises from complex interactions among biological, cognitive, emotional, and social determinants (Smith & Weber, 2017; Smith & Kelly, 1997). In practical terms, these results indicate that isolated classroom strategies are insufficient for managing fluency challenges. Instead, comprehensive approaches integrating teacher training, structured speech therapy, and language-sensitive pedagogical methods are essential.

Conclusion

This study demonstrates that stuttering among learners at Government Comprehensive Special School, Lafia, is a multidimensional condition shaped by multilingual language demands, cognitive-linguistic load, and limited access to therapeutic support. These interacting factors contribute to variations in stuttering severity and negatively affect learners' classroom participation and academic engagement. The findings highlight the need for language-sensitive fluency interventions that reflect learners' multilingual realities. While classroom strategies such as slow speech modelling and

visual supports are beneficial, effective stuttering management requires the integration of professional speech-language therapy services and sustained teacher training in evidence-based practices. At the policy level, the study underscores gaps in special-education service provision in public schools, particularly the shortage of speech-language specialists, calling for strengthened staffing frameworks and targeted funding.

Future research should employ larger samples and longitudinal or intervention-based designs to examine developmental patterns of

stuttering and evaluate the effectiveness of school-based fluency programmes in multilingual contexts. Overall, the study contributes context-specific evidence to fluency-disorder research in Nigeria and supports the adoption of integrated and linguistically responsive intervention models in special-education settings. In sum, this study adds contextually grounded evidence to stuttering research in Nigeria and underscores the necessity of integrated, linguistically informed, and policy-driven approaches to fluency intervention in special-education contexts.

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