

A Systematic Review of the Speech, Language and Communication Needs for Children Aged 5–8: Implications for Wales and Beyond

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ABSTRACT

During the COVID-19 pandemic, many children lost access to language-rich, non-parental care environments which are critical for early language development. These children are now aged 5–8, in full-time schooling, and there is limited understanding of the impact that speech, language and communication needs (SLCN) may be having on their wellbeing, school independence and progression in general. The aim of this review was to synthesise existing evidence of the prevalence of SLCN and wellbeing issues of children aged 5–8 years in research published since the pandemic. Specifically, the review sought to examine available international evidence and consider how Wales compares where possible, while acknowledging that direct comparative data are limited. Furthermore, the review sought to highlight specific interventions and assessment tools that are used to support SLCN and subsequent wellbeing of 5–8-year-olds. This systematic review adhered to the PRISMA framework while the PICO framework guided the research questions and search strategy. The MMAT and JBI Critical Appraisal Checklist were used to evaluate the included studies. Following the application of the inclusion criteria, 12 papers were included in the review. Due to the heterogeneity of the studies, a narrative synthesis was adopted

for analysis. The findings indicated that the research field is limited in a consistent approach to addressing SLCN and wellbeing issues for this age group. The results indicated that while there are clear links between SLCN and wellbeing for children, there is no universal standard for SLCN assessment and specific intervention studies on language development for this population were not identified. The findings highlighted that service access, resource availability and socioeconomic factors significantly influence the identification and management of SLCN.

Keywords: speech, language, communication, developmental language delay, wellbeing, COVID-19.

Introduction

Promoting robust speech, language, and communication (SLC) skills during early childhood is crucial for achieving positive outcomes in education, employment, health, and well-being throughout life (Beard, 2018a). Most children develop foundational speech and language skills in early childhood, which are essential for future literacy (Anthony et al., 2011; Boyle, 2011) and numeracy skills (Nathan et al., 2004) – both indicators of long-term health, well-being, and career prospects (Beard, 2018b; Jones et al., 2015). Conversely, difficulties with SLC skills can lead to emotional and behavioural issues (Hollo et al., 2014), mental health challenges (Clegg et al., 2005), heightened unemployment risks (Elliott, 2011), and increased interaction with the youth justice system (Bryan, Freer and Furlong, 2007).

Research shows that a child's 'communication-enabling environment' from birth to age five is a critical factor in their SLC development. This environment includes (1) the physical setting, (2) adult support for language interactions, and (3) ample opportunities for quality communication and language learning (Beard, 2018a). By age three, 90 per cent of children have acquired basic sounds like 'm', 'b', 'p', 'h', and 'w'; they use up to 300 words, form 4–5-word sentences, and engage in listening and conversation. While children's development rates vary slightly, these SLC skills provide essential preparation for reading, writing, sustained attention, and social skills needed in their early school years.

Despite the importance of quality language exposure at home, many children aged 0–5 spend considerable time in non-parental care settings, such as daycare, with childminders, or with extended family (Adams et al., 2023). It is essential, therefore, to create language-rich environments across these settings (Melhuish et al., 2015). Early childcare environments can enhance language development by offering clearly labelled, accessible, and engaging materials; establishing routines supported by visual cues; and integrating regular book-sharing, storytelling, and song or rhyme sessions (Hutchings et al., 2024; Stinton, 2018).

The COVID-19 pandemic posed significant challenges to children, families, and the support services on which they rely (Rajmil et al., 2021; Marchant et al., 2021; Knight et al., 2023). Many children lost access to language-rich, non-parental care environments, which are critical for early language development (Larson et al., 2020). While some parents and caregivers attempted to support their children's language skills during this period, many faced barriers due to full-time remote work, coordinating multiple levels of home schooling, and issues of digital access (Kallitsoglou and Topalli, 2024). In Wales specifically, families in the most socioeconomically disadvantaged communities likely faced even greater challenges (Bond, 2022); although Welsh Government provided emergency guidance to services like Families First and Flying Start to transition to digital delivery, many families lacked the necessary technology, reliable internet, digital skills, or motivation to engage effectively (Welsh Government, 2020).

The Babies in Lockdown (2020) report underscored three key issues: (1) COVID-19 impacted parents, children, and support services in varied ways, (2) families already at risk of poorer outcomes were disproportionately affected, and (3) the pandemic's effects will be long-lasting and complex. Although the direct impact of lockdowns on speech, language, and communication (SLC) skills remains under-researched, the Education Endowment Foundation (EEF) noted that parents of children entering their first school year expressed concerns about delayed speech and language development; 56 per cent reported their children needed additional support in communication.

Since school closures only ended in 2021, limited information is available on the progression of these learners' SLC skills through primary school. The 2020 Welsh school census reported that 63,422 children aged 0–11 were receiving Additional Learning Need (ALN) provision (formerly Special Educational Needs or SEN), equating to 20 per cent of all pupils in Wales, of whom 31.4 per cent were reported

to have SLC difficulties (Welsh Government, 2020). By 2023, this figure rose slightly to 33.1 per cent (Welsh Government, 2023), making SLC difficulties the most common ALN type, followed by behavioural, emotional, and social challenges (31.1 per cent). However, the prevalence of children with Speech, Language, and Communication Needs (SLCN) may be significantly underestimated, as many do not seek support from Speech and Language services (Law et al., 2013; Knight et al., 2025).

Speech, Language, and Communication Needs (SLCN) is an umbrella term encompassing communication challenges, including but not limited to Developmental Language Disorder (DLD), speech sound disorders, and Late Language Emergence (LLE). These needs impact multiple aspects of a child's development, from language comprehension and expression to social interaction and learning, all of which significantly affect overall well-being. In certain areas of the UK, up to 50 per cent of children may enter school with SLCN (Locke, Ginsborg and Peers, 2002).

While some SLCNs are temporary, such as LLE, and may resolve with appropriate support, 10 per cent of children experience persistent or long-term SLCN requiring tailored intervention based on the severity and type of difficulty (ICAN, 2009).

The implications of SLCN extend into all areas of social inclusion, affecting literacy, academic achievement, mental health, and eventual employment prospects (Law, Reilly and Snow, 2013). Children with limited vocabulary skills by age five are four times more likely to face functional illiteracy, three times more likely to encounter mental health issues, and twice as likely to experience unemployment as adults (Early Intervention Foundation, 2020). As such, the United Nations Educational, Scientific, and Cultural Organisation (UNESCO) considers the development of early language and literacy a critical global human rights issue.

Globally, prevalence rates for speech and language disorders vary due to differences in diagnostic criteria and reporting methods. For instance, approximately 8 per cent of children aged 3–17 in the United States experience speech, language, or swallowing disorders (Bhattacharyya, 2015). In the UK, 6 per cent of children show speech and language delays, a rate comparable to South Africa (6 per cent–9 per cent). Australia reports communication impairments ranging from less than 1 per cent to 21 per cent, with higher prevalence in younger children (Langbecker, Snoswell and Smith, 2020). An international prevalence

estimate for language disorders stands at 9.92 per cent, with language disorders of unknown origin estimated at 7.58 per cent and those associated with intellectual or medical diagnoses at 2.34 per cent (Norbury et al., 2016). Children with language disorders display elevated symptoms of social, emotional, and behavioural challenges and often fall short of expected academic progress.

Research shows that responsive parenting, daily book reading, and quality childcare are preventive factors for SLCN development (Roulstone et al., 2011). However, during the COVID-19 pandemic, high parental anxiety, depression, and lack of childcare access limited these preventive behaviours, likely contributing to higher rates of SLCN (Brown et al., 2020). The amount of spoken language a child hears significantly impacts their language development, with noticeable language skill gaps between children from different socioeconomic backgrounds. By age five, children from disadvantaged backgrounds may lag an average of nineteen months behind their higher-income peers in language skills (Early Intervention Foundation, 2020). Interactions with adults not only enhance language complexity but positively influence brain functions related to language processing (Finders, Wilson and Duncan, 2023).

A major independent review of SLCN services for children aged 0–19 found that early intervention is essential for improving long-term academic, behavioural, and employment outcomes. To effectively support children with SLCN, a continuum of family-centred services across developmental stages is vital. Collaboration among health, education, and social services can prevent fragmented care; however, access remains inconsistent, with families often facing a ‘postcode lottery’ for speech and language therapy (Bercow, 2008).

The Welsh Government’s *Talk with Me* initiative aimed to improve SLC support for children under five. It incorporated cross-disciplinary strategies aligned with legislation like the United Nations Convention on the Rights of the Child (UNCRC), *A Healthier Wales, Prosperity for All*, the *Wellbeing of Future Generations Act*, and *Cymraeg 2050*. Its objectives included: (1) raising public awareness of SLC, (2) improving SLCN screening, (3) identifying appropriate interventions, (4) upskilling the workforce, and (5) embedding SLC in policy. Running from 2020 to March 2022, *Talk with Me* provided accessible, bilingual resources to support parents and caregivers in fostering speech development.

While this initiative supports families with young children (0–4 years 11 months), there is limited understanding of SLCN impacts for children aged 5–8 and how to

support them as they enter school. Across the UK, many children start school with language skills below expected levels (Bercow, 2008), with educators observing increased SLCN needs in the classroom (Fox et al., 2021). A further concern is that children who miss developmental milestones may experience difficulties in emotional well-being, communication, and learning (Education Policy Institute, 2021; YouGov, 2020). For example, research has shown that the pandemic has also had a significantly negative impact on reading skills across Wales, especially in Welsh Language Reading Skills (OECD, 2023; Welsh Government, 2023). Given the impact of prolonged lockdowns on this age group, this research aims to assess the pandemic's effect on SLCN and well-being among children aged 5–8 by addressing three research questions:

RQ1: What is the prevalence of SLCN in children aged 5–8 in research published during the post-pandemic period?

RQ2: How does the Welsh context compare with international evidence where the data is available?

RQ3: What assessment tools and interventions have been used to support SLCN and well-being for this group?

Methods

The review adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework (Liberati et al., 2009) and was registered with PROSPERO (Registration No: CRD42024549216, May 2024). A Population, Intervention, Comparator, Outcome (PICOS) framework guided the research questions and search strategy as follows:

- *Population*: Children aged 5–8 in mainstream education with SLCN.
- *Intervention*: Standardised assessment tools and/or effective interventions supporting these learners.
- *Comparator*: Policies or practices before 2020.
- *Outcome*: Recognition of effective policies, tools, and interventions supporting well-being and SLCN outcomes in children.

An academic support librarian assisted with developing research questions, search terms, and inclusion/exclusion criteria, with iterative refinements advised by an expert advisory group. The expert advisory group ensured that the aims of the review were meaningful, the search terms were comprehensive, and the data extraction technique resulted in findings that could produce actionable recommendations. The group was comprised of Welsh Government senior research officers; Speech, Language and Communication Directors; Speech and Language Therapy Clinical Leads; Teachers; Parenting representatives; and Speech and Language Therapists. The organisations represented in the advisory group can be found in Table 1. Following the refinements by the expert advisory group, pilot searches were conducted to validate all search terms and feasibility of the inclusion and exclusion criteria.

Inclusion and Exclusion Criteria

Records were screened for inclusion if they: (a) were written in English or Welsh, (b) were published in peer-reviewed journals, (c) involved children aged 5–8 in full-time mainstream education with SLCN, and (d) were post-2020. In relation to inclusion criteria (d), whilst all included papers were published post-2020, the exact timing of the data collection was not specified within all studies, Studies focusing

Table 1. Organisations represented by the participating advisory group members

<i>Member</i>	<i>Organisation</i>
1	Parentkind
2	Welsh Government
3	Communities and Tackling Poverty- Early Years
4	Flintshire County Council
5	Vale of Glamorgan Council
6	Aneurin Bevan University Health Board
7	Swansea Bay University Health Board – Speech and Language Therapy
8	Cardiff and Vale University Health Board – Speech and Language Therapy
9	University of South Wales

solely on children with additional learning needs (ALN) or SEN were excluded due to operational differences in SEN settings during school closures, as were studies on well-being interventions that were unrelated to language/communication. Table 2 details the inclusion and exclusion criteria.

Table 2. Inclusion and exclusion criteria

<i>Inclusion</i>	<i>Exclusion</i>
English or Welsh language	Not English language
Children 5-8 years	Children not 5-8 years
After 2020	Before 2020
Full time schooling	Children with additional learning needs Wellbeing interventions

Search Strategy

Literature searches were conducted in May 2024 using the ProQuest platform, which encompasses a broad range of multidisciplinary databases. Filters were applied to search across fifty-one electronic databases, including Education Collection, Education Database, Linguistics Collection, Linguistics and Language Behaviour Abstracts (LLBA), MEDLINE®, APA PsycInfo®, Social Science Database, Sociology Collection, and ERIC, among others. The search strategy involved the combined use of specific keywords and terms, detailed in Table 3, to capture relevant studies addressing the research questions on SLCN and well-being in children.

Supplementary Searches and Study Selection

In addition to database searches, grey literature was reviewed, including national reports from the four UK nations' governmental websites, and other key organisations such as the Royal College of Speech and Language Therapists (RCSLT) and Speech and Language UK, as recommended by the stakeholder advisory board. The Organisation for Economic Co-operation and Development (OECD) website was also searched to provide an international perspective.

Table 3. Search terms used across databases

<i>Speech element</i>	<i>Wellbeing element</i>	<i>Intervention/ exposure</i>	<i>Learners</i>
“Speech, Language and communication need*”	Wellbeing	Measure*	5-8 (5 Year* OR 5 Year* old* OR 5yrs, 6 Year* OR 6 Year* old* OR 6 yrs, 7 Year* OR 7 Year* old* OR 7yrs, 8 Year* OR 8 Year* old* OR 8yrs)
SLCN	Well-being	Scale*	Key stage (1,2)
Communication	School readiness	Assessment*	Grade 1,2,3
Communication skill*	Social and emotional wellbeing	Intervention*	Kindergarten
Communication delay*	Well being	Program*	School children
Communication need*	School-readiness	Programme*	Foundation phase
Communication difficult*	School readiness	Service*	Primary school*
Speech	Social and emotional well being	Support*	Elementary school*
Speech skill*	Social and emotional well-being	Outcome*	Learner*
Speech delay*		Impact*	Pupil*
Speech need*		Effective*	Student*
Speech difficult*		Tool*	Child*
Language			Mainstream
Language Skill*			
Language need*			
Language delay*			
Language difficult*			
Speech and Language Difficulties			
Sp&LD			
Developmental language disorders (DLD)			
Language Disorder			

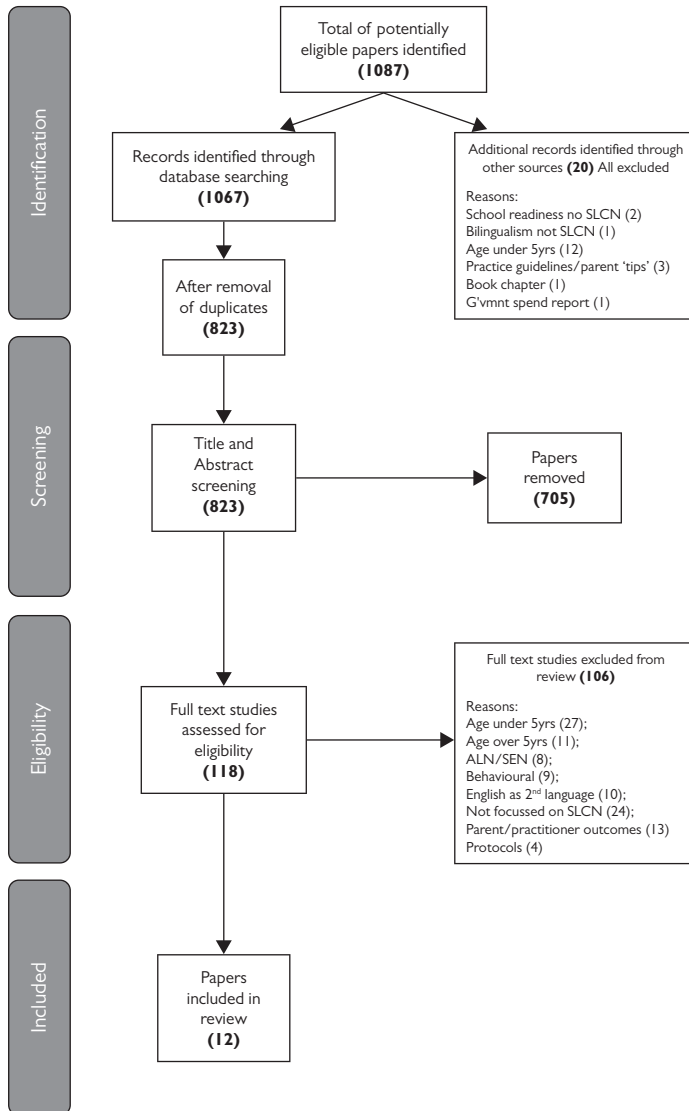
To capture relevant data, only articles published from 2020 onwards and in English or Welsh were included. Grey literature, such as government reports, was included regardless of peer review status. All search results were imported into CADIMA software, facilitating streamlined data storage, reporting, and rigorous screening. CADIMA also allowed for consistent title, abstract, and full-text screening in line with predefined inclusion/exclusion criteria. Three reviewers conducted consistency checks at the title and abstract stage, achieving a kappa score of 0.89, which indicated high interrater reliability and clarity in criteria. Reviewers were blinded to each other's selections throughout this phase. The initial search returned 1,067 articles, and after duplicate removal, 823 articles were screened by title and abstract. A further 118 articles underwent full-text review, with additional consistency checks yielding a kappa score of 0.8, confirming strong agreement. Two reviewers completed the full-text screening, with discrepancies discussed in resolution meetings. Ultimately, twelve studies met the inclusion criteria and were retained for review (Figure 1).

Data Extraction and Synthesis

Data extraction parameters were established in collaboration with the expert advisory group to ensure the data's relevance to professionals working within the field. Consequently, the studies included focused specifically on the designated age group (5–8 years) within full-time mainstream education. Well-being was included as an outcome but considered solely in relation to SLCN and its impacts on school readiness and well-being. Contextual variables such as socioeconomic status, geographical location, and cultural diversity were also included in the synthesis approach.

The research team developed a customised data extraction form through discussions with the advisory group, using the review's questions and objectives as primary domains for data collection. For each of the twelve studies, extracted information covered: country of origin, research focus and design, sample, specific SLCN of interest, intervention or treatment, assessment tools, any co-occurring diagnoses, social-emotional and behavioural issues, and contextual factors related to COVID-19's impact on SLCN. The extracted data allowed for comparative analysis of assessment measures used in Wales and

Figure 1: PRISMA Flow Diagram.



internationally, as well as evaluation of intervention efficacy to assess evidence strength.

Given the scope and heterogeneity of the studies, a narrative synthesis approach was employed, facilitating a comprehensive understanding by integrating both qualitative and quantitative data. Narrative synthesis allowed for exploration of processes, settings, and contextual factors influencing the success or failure of interventions. This method also identified gaps in the current research, especially underrepresented areas in assessments or interventions. To accommodate the diverse study designs, two quality appraisal tools were employed to ensure comprehensive coverage across all included studies.

Results

Study Scope, Design, and Geographic Distribution

The studies included in this review span diverse geographical regions, including the UK, USA, China, Serbia, Ireland, Spain and Australia, as well as international systematic reviews. Research designs ranged from observational case studies and surveys to systematic reviews and secondary data analyses. Sample sizes varied widely, from small case-control groups to large-scale national datasets. Most studies focused on children with Developmental Language Disorder (DLD), using common assessment tools like the Clinical Evaluation of Language Fundamentals (CELF) and the Strengths and Difficulties Questionnaire (SDQ). Research objectives included exploring prevalence and co-occurring factors (Wu et al., 2023), intervention effects on executive function (Henry et al., 2022), and quality of life (Ilic-Savic and Petrovic-Lazic, 2023). Some studies examined service access disparities (Davidson et al., 2022), parental perspectives (Andrés-Roqueta et al., 2021), or intervention dosage (Frizelle et al., 2021), while others, such as Pereira and Lousada (2023), conducted systematic reviews of assessment tools, contributing to a broader understanding of effective SLCN support and intervention strategies. The complete data extraction table is available in Table 4.

Table 4: Data Extraction Table

Author	Country	Research focus Research design	Sample	SLCN	Intervention/ treatment Assessment tool	Comparison and/or Co-occurring diagnosis	Wellbeing/ SEB
Wu et al., (2023)	China	Assessing the prevalence, co-occurring difficulties and risk factors for DLD Quantitative study: Based on national data a representative sample was identified.	Children aged 5-6yrs Representative sample based on national data	DLD	i) Diagnostic Receptive and Expressive Assessment of Mandarin (DREAM) ii) Raven Standard Progressive Matrices (Raven's SPM) iii) SEB measure Strengths and Difficulties Questionnaire (SDQ) iv) School readiness measure Human Capability Index (eHCI)	Comparison with TD children Excluded any co-morbidity	N/A
Pereira & Lousada (2023)	Not specified	Focus on assessment measures Systematic Review of tools to assess pragmatic difficulties for DLD.	6 studies	DLD	i) Clinical Evaluation of Language Fundamentals–Third Edition (CELF-3) in 2 studies	Some studies included children with ADHD	N/A

Author	Country	Research focus Research design	Sample	SLCN	Intervention/ treatment Assessment tool	Comparison and/or Co-occurring diagnosis	Wellbeing/ SEB
Ilic-Savic & Petrovic-Lazic (2023)	Serbia	Assessing the quality of life (QoL) of school children with speech and voice disorders.	100 children	DLD (50%)	ii) Clinical Evaluation of Language Fundamentals–Fourth Edition (CELF-4) in 2 studies iii) Children Communication Checklist–Second Version (CCC-2) in 2 studies iv) Test of Problem Solving–Third Edition Elementary (TOPS-3:E) in 1 study vi) Social Skills Rating System (SSRS) in 1 study	TD (50%)	Quality of life

Author	Country	Research focus Research design	Sample	SLCN	Intervention/ treatment Assessment tool	Comparison and/or Co-occurring diagnosis	Wellbeing/ SEB
Burnley et al., (2023)	UK	To explore SEB and anxiety in DLD children. Mixed method design. Survey and qualitative interviews.	Children 6-12yrs	DLD	Survey TD n50 (58.7% Male and 41.3% female) - DLD n57 (51.8% Male and 48.2 Female). Interviews 4 interviews with mothers.	TD	Parent informed statements (Unstand-ardised) measure of SEB (e.g., anxiety)
Davidson et al., (2022)	USA	Access to Speech and language services and Service providers. Secondary data analysis from National Health Interview Survey	3-17 years	Speech disorder (n = 491) Language disorder (n = 333)	SLT provided majority of service provision, followed by early intervention specialists.	NA	NA
Wilder & Redmond (2022)	USA	To understand if shorter Language sample analysis is reliable for DLD children Observational case-control	5-7 years n = 42 (21 DLD; 21 TD)	DLD	Clinical Evaluation of Language Fundamentals; Fourth Edition (CELF-4), Naglieri Nonverbal Ability Test (NNAT).	DLD (n = 21) TD (n = 21)	N/A

Author	Country	Research focus Research design	Sample	SLCN	Intervention/ treatment Assessment tool	Comparison and/or Co-occurring diagnosis	Wellbeing/ SEB
Henry et al., (2022)	UK	Intervention to improve executive working memory for DLD learners Pre-post intervention	6-10 yrs n = 47 (24 Int; 23 Cont)	DLD	Intervention: 18 sessions 1 to 1 over 6 weeks Assessment: Screening: Clinical Evaluation of Language Fundamentals—Fourth Edition (CELF-4), Outcomes: Listening recall from the Working-Memory Test Battery (WMTB-C), The Odd One Out Span task, The Sentence Comprehension subtest from the Assessment of Comprehension and Expression (ACE), The Test for Receptive Grammar Version 2 (TROG-2).		SEB

Author	Country	Research focus Research design	Sample	SLCN	Intervention/ treatment Assessment tool	Comparison and/or Co-occurring diagnosis	Wellbeing/ SEB
McConkey et al., (2021)	IRL	Prevalence of speech and language difficulties Investigate speech and languages difficulties at age 5yrs and follow up at 9 yrs. Parent and teacher reported questionnaires pre-post	5-9yrs (n = 7700)	Speech difficulties	Strengths and Difficulties Questionnaire (SDQ)		
Denman et al., (2021)	AUS	To explore the assessment tools used by SLT for school aged learners, and regularity of use. Online survey	SLTs working with children 4-12yrs (n = 727)	Assessment tool	CELF-4 and 5 RAPT (Renfrew Action Picture Test) SPAT (Sutherland Phonological Awareness Assessment) PLS (Preschool Language Scales) YARC – Passage Reading (York Assessment of Reading for Comprehension) TOPS (Test of Problem Solving)	N/A	N/A

Author	Country	Research focus Research design	Sample	SLCN	Intervention/ treatment Assessment tool	Comparison and/or Co-occurring diagnosis	Wellbeing/ SEB
					RBS (Renfrew Bus Story) CCC (Children's Communication Checklist) NARA (Neale Analysis of Reading Ability) PPVT (Peabody Picture Vocabulary Test) Reynell (Reynell Developmental Scales) CTOPP (Comprehensive Test of Phonological Processing) TNL -2 (Test of Narrative Language) TOLD-1 (Test of Language Development) CASL (Comprehensive Assessment of Spoken Language) ERRNI (Expression, Reception, Recall of Narrative Instrument) OWLS-II (Oral and Written Language Scales)		

Author	Country	Research focus Research design	Sample	SLCN	Intervention/ treatment Assessment tool	Comparison and/or Co-occurring diagnosis	Wellbeing/ SEB
Chutko et al., (2022)	Not specified	Behavioural impairments of learners with Speech Development Disorders	4-6yrs N = 60 (30 SDD; 30 TD)		Assessed using ICD-10 criterion: Difficulties measured with SDQ and SNAP-IV	TD	
Frizelle et al., (2021)	International	Systematic review of dosage for learners with DLD	3-18yrs	DLD	There is little evidence available on the dose of intervention for DLD learners	N/A	N/A
Andrés-Roqueta et al., (2021)	Spain	To explore CCC-2 parental reporting in comparison to formal assessments.		DLD	Parents completed the CCC-2 and research team administered Comprensión de Estructuras Gramaticales, Evaluación del Lenguaje Infantil and short-term auditory memory (ELI), Raven's Colored Progressive Matrices, Social stories, The Matching Familiar Figures Test (MFFT)	TD	N/A

Narrative Summary of Included Studies

Wu et al. (2023) conducted a quantitative study to estimate the prevalence of Developmental Language Delay (DLD) among Mandarin-speaking children aged 5–6 and investigated associated developmental challenges. Using a representative sample from national data, they assessed language outcomes with the Diagnostic Receptive and Expressive Assessment of Mandarin (DREAM), alongside Raven's Standard Progressive Matrices to measure non-verbal IQ and the Strengths and Difficulties Questionnaire (SDQ) for socio-emotional behaviour. They also measured school readiness using the Human Capability Index (eHCI), a culturally adaptable assessment. Results showed prevalence rates similar to Western countries, highlighting co-occurring socio-emotional difficulties among children with DLD, who faced nearly double the risk compared to TD (typically developing) children. Key predictors identified included parental education, socioeconomic status, and limited early educational exposure, suggesting that multi-sectoral collaboration is essential for effective DLD intervention.

Pereira and Lousada (2023) conducted a systematic review assessing pragmatic language intervention tools for children with DLD. The review analysed six studies and seven commonly used tools, including the CELF-3, CELF-4, CCC-2 and TOPS-3, highlighting varying psychometric properties and areas where improvement is needed. They noted that while some tools demonstrated solid reliability and validity, others lacked comprehensive psychometric evaluation, particularly around responsiveness, which is critical for measuring intervention progress. The review questioned the suitability of current standardised measures and recommended developing tailored tools that address specific pragmatic needs, supporting improved clinical decision-making and intervention outcomes.

Ilic-Savic et al. (2023) focused on the impact of voice and speech disorders on school-aged children's quality of life in Serbia. Analysing 100 children (fifty with DLD and fifty TD), the study employed the Paediatric Voice Handicap Index to measure social-emotional well-being and found that children with speech disorders had significantly lower self-esteem, faced greater social isolation, and were at higher risk of bullying. Academic performance was also notably impacted. The authors stressed that early, collaborative intervention with educators and parents could mitigate these effects, enhancing both emotional well-being and academic outcomes for children with SLCN.

Burnley et al. (2023) explored the prevalence of socio-emotional issues, including anxiety, in children aged 6–12 diagnosed with DLD. Using a mixed-methods design, the study revealed high levels of anxiety (80 per cent) and emotional dysregulation (75 per cent). The survey employed established measures like the Spence Children's Anxiety Scale and the Child Social Behavioural Questionnaire, and in-depth interviews provided insights into the specific challenges parents observed in their children's social interactions and behaviour control. The study highlighted that the COVID-19 pandemic may have exacerbated these issues, emphasising the critical need for targeted emotional and social support alongside language interventions for children with DLD.

Davidson et al. (2022) analysed data from the 2012 National Health Interview Survey to investigate access to speech and language services for children aged 3–17 with speech disorders. Of the children sampled, approximately 75 per cent had received services, with significant disparities in access based on insurance status, race, and the presence of co-occurring conditions. Privately insured children and those with additional diagnoses accessed services more reliably. Speech-language pathologists were the main service providers, but disparities underscored the need for systemic improvements to ensure equitable access to necessary services, particularly for uninsured and minority children.

Wilder and Redmond (2022) examined the reliability of shorter Language Sample Analysis (LSA) samples for diagnosing DLD. By comparing various sample lengths, they found that seven-minute samples offered sufficient reliability, especially in identifying grammatical errors and omissions, using the CELF-4 and Systematic Analysis of Language Transcripts software. The study concluded that shorter samples could facilitate more efficient clinical assessments without compromising diagnostic accuracy, providing a feasible approach for practitioners dealing with time constraints while ensuring diagnostic thoroughness for DLD.

Henry et al. (2022) conducted an adaptive intervention study targeting working memory and language comprehension in children with DLD aged 6–10. The intervention, delivered in 18 one-to-one sessions, demonstrated sustained improvements in working memory and sentence comprehension up to nine months post-intervention. Tools used included the Working-Memory Test Battery for Children (WMTB-C) and subsets of the Clinical Evaluation of Language Fundamentals (CELF-4). The study highlighted that engaging, brief sessions minimised school disruption and enhanced learning outcomes, illustrating the

effectiveness of structured interventions in supporting language comprehension and cognitive function in children with DLD.

McConkey et al. (2021) performed a secondary analysis of longitudinal data on language difficulties in over 7,500 Irish children, tracking changes between ages five and nine. Parent interviews revealed a decrease in language difficulties from one in six at age five to one in twelve at age nine, though one in twenty children had persistent issues. These difficulties were often linked to developmental impairments and hearing issues. The study noted limited access to speech and language services, with only one-third of affected children receiving regular support, highlighting the need for consistent intervention to address persistent language deficits and associated social-emotional concerns.

Denman et al. (2021) surveyed 407 SLPs in Australia about their preferred assessment methods for children aged 4–12. The survey revealed that most practitioners favoured norm-referenced assessments over dynamic, contextual methods due to constraints like time and budget. SLPs in educational settings were more likely to use school-focused assessments, while those in private practices cited resource limitations. The study underscored a need for standardisation in assessment methods, especially for SLPs working in underserved regions, to ensure equitable, efficient language evaluations for children across various settings.

Chutko et al. (2022) examined emotional and behavioural issues in children with Speech Language Impairment (SLI), using the SDQ and SNAP-IV to measure behavioural challenges. The study found that 61.7 per cent of children with SLI exhibited behavioural issues, and 38.3 per cent showed ADHD symptoms. Children with SLI scored significantly higher on hyperactivity, inattention, and emotional problems, suggesting that speech impairments can predict behavioural challenges. This highlights the need for integrated approaches addressing both language and behavioural interventions for children with SLI.

Frizelle et al. (2021) reviewed 27 studies on DLD intervention dosage, finding that lower dosages can still yield positive outcomes, particularly with contextually adapted interventions. The review noted gaps in optimal dosage determination, particularly in phonological and semantic approaches to vocabulary development. The authors recommended more research to tailor interventions based on age and severity, advocating for a systematic approach to evaluate intervention dosage, which is crucial for effective and sustainable language support.

Andrés-Roqueta et al. (2021) explored parental use of the Spanish CCC-2 for screening DLD compared to formal assessments of language and memory in children aged three years ten months to nine years. The study found strong correlations between CCC-2 results and direct assessments, particularly in structural language and pragmatic abilities. Findings underscored the CCC-2's utility as an early screening tool, promoting timely intervention to mitigate potential social-emotional and academic challenges associated with DLD.

Quality Appraisal of Included Studies

The Mixed Methods Appraisal Tool (MMAT) was applied to evaluate the majority of studies in this review, covering qualitative, quantitative, and mixed-method research designs. Updated in 2018, MMAT assesses methodological quality across five study categories: qualitative research, randomised controlled trials, non-randomised studies, quantitative descriptive studies, and mixed methods. While MMAT is comprehensive for empirical studies, it does not extend to specific designs, such as economic or diagnostic accuracy studies (Whiting et al., 2004). For the studies included in this review, six were non-randomised, three were quantitative descriptive, and the remainder used other empirical classifications per MMAT guidelines. Detailed results from the MMAT appraisal are available in Table 5.

Two studies in this review were systematic reviews therefore, the Joanna Briggs Institute (JBI) Critical Appraisal Checklist was used, as it specifically evaluates systematic review methodologies. This checklist assesses areas such as research question clarity, inclusion criteria, search strategy, and data extraction, as well as publication bias, ensuring quality and transparency (Munn et al., 2020).

Quality Appraisal Results

As MMAT guidelines advise against generating an overall quality score (Hong et al., 2018), results are provided as a narrative summary based on study design.

Non-Randomised Studies

Ilic-Savic and Petrovic-Lazic (2023) demonstrated robust study design with clear research questions, representative sampling, and appropriate data analysis.

Table 5. MMAT Quality Appraisal Results

SCREENING QUESTIONS		3. NON-RANDOMISED STUDIES					4. QUANTITATIVE DESCRIPTIVE STUDIES						
Citation	S1. Are there clear research questions?	S2. Do the collected data allow to address the research questions?	3.1. Are the participants representative of the target population?	3.2. Are measurements appropriate regarding both the outcome and intervention (or exposure)?	3.3. Are there complete outcome data?	3.4. Are the confounders accounted for in the design and analysis?	3.5. During the study period, is the intervention administered (or exposure occurred) as intended?	Citation	4.1. Is the sampling strategy relevant to address the research question?	4.2. Is the sample representative of the target population?	4.3. Are the measurements appropriate?	4.4. Is the risk of nonresponse bias low?	4.5. Is the statistical analysis appropriate to answer the research question?
Ilic-Savic & Petrovic-Lazic (2023)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Davidson et al., 2022	Can't tell	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wilder & Redmond, 2022)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Henry et al., 2022	Yes	Yes	Yes	Can't tell	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Chutko et al., 2022	No	Can't tell	Can't tell	Yes	Can't tell	Yes	Yes	Can't tell	Yes	Can't tell	Can't tell	Can't tell	Can't tell
Andrés-Roqueta et al., 2021	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SCREENING QUESTIONS													
Citation	S1. Are there clear research questions?	S2. Do the collected data allow to address the research questions?	4.1. Is the sampling strategy relevant to address the research question?	4.2. Is the sample representative of the target population?	4.3. Are the measurements appropriate?	4.4. Is the risk of nonresponse bias low?	4.5. Is the statistical analysis appropriate to answer the research question?						

Wu et al., 2023	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
McConkey et al., 2021	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Can't tell
Denman et al., 2021	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Can't tell
SCREENING QUESTIONS								
Citation	5. MIXED METHODS STUDIES							
	S1. Are there clear research questions?	S2. Do the collected data allow to address the research questions?	S1. Is there an adequate rationale for using a mixed methods design to address the research question?	S2. Are the different components of the study effectively integrated to answer the research question?	S3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted?	S4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed?	S5. Do the different components of the study adhere to the quality criteria of each tradition of the methods involved?	
Burnley et al., (2023)	Yes	Yes	Yes	Yes	Can't tell	Yes	Can't tell	Can't tell

Davidson et al. (2022) accounted for confounders well, though the clarity of its research questions could have been improved. Wilder and Redmond (2022) performed strongly in research clarity and data collection, although administration specifics were underreported. Henry et al. (2022) effectively managed confounders but had incomplete outcome data. Chutko et al. (2022) lacked clarity in research questions and participant outcomes, though it achieved reliable measurement. Andrés-Roqueta et al. (2021) performed well across most criteria, showing clear research questions and appropriate measurements.

Quantitative Descriptive Studies

Wu et al. (2023) scored highly in sampling strategy, research design, and analytical rigour. McConkey et al. (2021) demonstrated robust sampling and measurement but was unclear in statistical analysis. Denman et al. (2021) showed strong sampling relevance and low response bias but could improve data collection clarity.

Mixed Methods Studies

Burnley et al. (2023) successfully integrated qualitative and quantitative data with a clear rationale. However, reporting on the integration quality and adherence to quality criteria for each component was inconsistent.

Appraisal of Systematic Review Quality

Two of the included studies were systematic literature reviews, evaluated using the JBI Critical Appraisal Tool (Munn et al., 2020). This tool assesses review quality by examining criteria such as inclusion standards, search strategy comprehensiveness, and recommendations for future research. Pereira and Lousada (2023) demonstrated suitable inclusion criteria, a sound search strategy, and clear directions for future studies. However, certain aspects lacked clarity, including the review question, adequacy of search sources, independent critical appraisal, and publication bias assessment. Policy or practice recommendations were also limited. In contrast, Frizelle et al. (2021) maintained strong inclusion criteria, source selection, and well-supported policy recommendations. However, this review lacked clarity in the research question and search strategy, and methods for

Table 6. JBI Appraisal outcomes.

<i>Pereira, T., and Lousada, M. (2023).</i>	Yes	No	Unclear	Not applicable
1. Is the review question clearly and explicitly stated?			X	
2. Were the inclusion criteria appropriate for the review question?	X			
3. Was the search strategy appropriate?	X			
4. Were the sources and resources used to search for studies adequate?			X	
5. Were the criteria for appraising studies appropriate?	X			
6. Was critical appraisal conducted by two or more reviewers independently?			X	
7. Were there methods to minimize errors in data extraction?		X		
8. Were the methods used to combine studies appropriate?			X	
9. Was the likelihood of publication bias assessed?			X	
10. Were recommendations for policy and/or practice supported by the reported data?				X
11. Were the specific directives for new research appropriate?	X			
<i>Citation</i>				
<i>Frizelle et al., 2021</i>	Yes	No	Unclear	Not applicable
1. Is the review question clearly and explicitly stated?		X		
2. Were the inclusion criteria appropriate for the review question?	X			
3. Was the search strategy appropriate?			X	
4. Were the sources and resources used to search for studies adequate?	X			
5. Were the criteria for appraising studies appropriate?	X			

6. Was critical appraisal conducted by two or more reviewers independently?	X			
7. Were there methods to minimise errors in data extraction?	X			
8. Were the methods used to combine studies appropriate?			X	
9. Was the likelihood of publication bias assessed?	X			
10. Were recommendations for policy and/or practice supported by the reported data?	X			
11. Were the specific directives for new research appropriate?	X			

synthesising studies were insufficiently defined. Both reviews showed methodological strengths but could benefit from enhanced rigour and detail. The complete JBI appraisal outcomes are available in Table 6.

DISCUSSION

Summary of Findings

The objective of this review was to synthesise evidence on the Speech, Language, and Communication Needs (SLCN) and wellbeing of children aged 5–8 in research published during the post-pandemic period by; (1) examining the prevalence of SLCN for this age group; (2) examining how the Welsh context can be compared internationally, and; (3) considering which assessment tools and interventions have been used to support SLCN and wellbeing for this group. The review included twelve studies, spanning systematic reviews, population data, surveys, mixed-method designs, and an observational case study. Studies were categorised by various domains, such as country, research focus, sample, SLCN type, interventions, assessment tools, and wellbeing outcomes. The synthesis indicates that despite the impact the pandemic is reported to have on the SLCN and wellbeing of this group of children, the current research field is limited in addressing the specific impact of the pandemic. Just one study (Burnley et al, 2023) reported the impact of the pandemic

on the participants. Whilst the inclusion criteria stipulated that only papers from 2020 onwards could be included, this was not robust enough to determine if the studies were reporting directly on the impact of the pandemic. The heterogeneity of the study designs, methodologies, and contexts also resulted in complexity in addressing the second research questions; The Welsh context could not be compared internationally within this review. However, the narrative synthesis has provided a foundational understanding for research questions one and three and highlighted the importance of continued research in this area.

SLCN Prevalence

The included studies highlight that DLD affects 3–7 per cent of children aged 5–8 across diverse international contexts (Davidson et al., 2022; Ilic-Savic et al., 2023; Wu et al., 2023), with similar prevalence rates observed in Western countries, China and Serbia. This consistency across these different contexts suggests that DLD is a global phenomenon affecting children at comparable rates regardless of the language they speak. The evidence from this review further demonstrates that SLCN rarely occur in isolation. Wu et al. (2023) found that children with DLD faced nearly double the risk of socio-emotional difficulties compared to typically developing peers, while McConkey et al's (2021) longitudinal study revealed that while language difficulties decreased from one in six children at age five to one in twelve at age nine, approximately one in twenty experienced persistent challenges often linked to other developmental impairments. This finding contributes to the knowledge base in Wales because Welsh Government statistics indicate that 33.1 per cent of children with Additional Learning Needs have a SLCN (Welsh Government, 2023). The evidence collated in this review suggests that many of these children may also experience co-occurring socio-emotional and behavioural difficulties, emphasising the need for holistic assessment and support approaches in Welsh educational and healthcare settings.

The link between SLCN and Wellbeing

One of the most robust and consistent findings across the included studies was the strong relationship between SLCN and children's wellbeing. Burnley et al. (2023)

found that 80 per cent of children with DLD exhibited anxiety and 75 per cent demonstrated emotional dysregulation. Ilic-Savic et al. (2023) documented significantly lower self-esteem, greater social isolation, and higher bullying risks among children with speech disorders, while Chutko et al. (2022) revealed that 61.7 per cent of children with Speech Language Impairment exhibited behavioural issues. This evidence highlights that addressing SLCN is not merely about language development but is fundamentally connected to children's emotional wellbeing, social participation, self-esteem, and academic success. The pathway from early language difficulties to mental health challenges, academic underachievement, and long-term employment outcomes (Law et al., 2013; Early Intervention Foundation, 2020) appears to be mediated by wellbeing difficulties during the primary school years. The Welsh Government's commitment to wellbeing through the *Wellbeing of Future Generations Act* and the emphasis on holistic child development in *A Healthier Wales* and *Prosperity for All* aligns with this evidence. However, the findings suggest that current approaches may need to more explicitly integrate language support with wellbeing interventions. The *Talk with Me* initiative's focus on children under five represents important early intervention, but the evidence indicates a need for continued, wellbeing-focused language support as children enter and progress through primary education.

Assessment Measures

The review identified commonly used assessment tools including the Clinical Evaluation of Language Fundamentals (CELF), Children's Communication Checklist (CCC-2), and Strengths and Difficulties Questionnaire (SDQ). However, two critical findings emerged regarding assessment practices. Pereira and Lousada (2023) questioned the suitability of current standardised measures, particularly their ability to track intervention progress. While tools like CELF demonstrate solid reliability for diagnosis, their capacity to measure meaningful change following intervention is less established. This has significant implications for evaluating whether interventions are effective. Furthermore, Denman et al. (2021) revealed that despite the availability of various assessment approaches, practitioners predominantly use norm-referenced assessments due to time and budget constraints, even when more comprehensive assessments might be preferable. This gap between best-practice recommendations and feasible implementation suggests

that resource limitations could be a factor in assessment selection. The lack of a universal standard for SLCN assessment limits the ability to establish consistent prevalence rates, compare outcomes, and ensure equitable identification of children requiring support. For Wales specifically, the bilingual context adds complexity because assessments must be available and validated in both English and Welsh. The review highlights the importance of culturally and linguistically appropriate tools (Wu et al., 2023; Andrés-Roqueta et al., 2021) but found no studies examining bilingual assessment in Welsh-English contexts. Standardising assessment approaches across Wales while ensuring bilingual capacity represents both a challenge and an opportunity to establish a clear national picture of SLCN prevalence and support needs.

Interventions

A key finding was the limited evidence on specific interventions for language development in children aged 5–8 with SLCN. Only Henry et al. (2022) directly evaluated an intervention, which focused on working memory rather than language skills specifically. While this intervention showed sustained improvements in working memory and sentence comprehension, no included studies examined direct interventions targeting vocabulary, grammar, phonological skills, or pragmatic language. Frizelle et al.'s (2021) systematic review of intervention dosage found that lower dosages could yield positive outcomes when contextually adapted, but identified significant gaps in determining optimal approaches for different age groups and severity levels. No studies evaluated interventions that integrated language support with wellbeing or socio-emotional development, despite the clear evidence linking these domains. This evidence gap highlights that practitioners in Wales may lack clear, evidence-based guidance on which interventions are most effective for this age group. While international intervention research exists for younger children and for children with more severe language disorders, the specific needs of children now aged 5–8 (who were in their early years during the pandemic) remain under-researched. This represents a priority area for Welsh research and practice development, particularly given the documented concerns about increased SLCN following lockdowns (Education Endowment Foundation, 2020; Fox et al., 2021).

Contextual Factors

The included studies revealed that SLCN identification and support are significantly influenced by contextual factors. Davidson et al. (2022) documented disparities based on insurance status and race in the USA, while McConkey et al. (2021) found that only one-third of Irish children with identified language difficulties received regular support. As previously mentioned Denman et al. (2021) highlighted how resource constraints shape practitioners' assessment approaches, with time and budget limitations leading to compromises in comprehensiveness. Wu et al. (2023) identified socioeconomic status and parental education as key predictors of DLD risk, suggesting that disadvantage operates both as a risk factor for language difficulties and as a barrier to accessing support. Davidson et al. (2022) found that children with co-occurring conditions accessed services more reliably than those with SLCN as a primary difficulty, raising concerns about whether children with language needs alone may be overlooked. These findings echo concerns about the 'postcode lottery' of speech and language therapy access across the UK (Bercow, 2008). While Wales has unique policy frameworks and initiatives like *Talk with Me*, the fundamental challenges of resource allocation, equitable access, and socioeconomic disparities appear consistent across contexts. The evidence suggests that addressing SLCN effectively requires not only developing evidence-based tools and interventions but also ensuring equitable access regardless of geography, socioeconomic status, or whether children have additional diagnoses. Initiatives like Families First and Flying Start are well-positioned to address some of these disparities, but the evidence suggests sustained support must continue as children enter primary education.

Impact of COVID-19

An initial central aim of this review was to examine the pandemic's impact on SLCN and wellbeing for children aged 5–8 by only including research published in the post-pandemic period. However, while all included studies were published after 2020, most did not clearly specify when data were collected or explicitly examine pandemic effects. Only Burnley et al. (2023) mentioned the pandemic's potential role in increasing anxiety among children with DLD, though this was not the study's primary focus. This lack of direct evidence is unexpected given widespread

anecdotal reports from educators and parents about developmental delays following lockdowns and given documented concerns from bodies like the Education Endowment Foundation about children entering school with speech and language delays. Several factors likely explain this gap, including research lags, data collection challenges during the pandemic and research priorities during this time.

Strengths and Limitations

Extensive input from an advisory board of stakeholders ensured that all critical areas of interest and principal sources were covered, with a well-defined research question guiding the review process. The search strategy, spanned several databases and grey literature, capturing a wide range of relevant studies.

The PICO framework and input from stakeholders allowed for a clear, focused research question and relevant search terms, aligning well with the review's objectives. However, the overarching research question may have been too broad for one review, covering SLCN prevalence, possible impact of the pandemic, and the impact on wellbeing, which complicated data synthesis. Future research might consider iterative reviews focusing on each theme separately to gain more specific findings.

To maximise transparency, the protocol was registered with PROSPERO, and the PRISMA guidelines were followed. Although this broad approach was effective in identifying a wide range of studies, time constraints limited the extent of the search, possibly excluding some eligible papers. Additionally, the heterogeneity of the studies – spanning diverse designs, assessments, and interventions – challenged synthesis, suggesting that a meta-analysis might have been more feasible with more focused review questions.

Using the CADIMA software platform supported a structured screening process and facilitated efficient data extraction, with a two-stage screening process – title and abstract screening followed by full-text review – further strengthening reliability. Multiple appraisers worked independently, achieving good interrater reliability, and applying rigorous quality appraisal tools, including the MMAT and JBI, to ensure the reliability of findings. Cross-checking and resolution discussions among reviewers reduced bias and ensured consistency.

The diverse methodologies in the included studies necessitated a narrative synthesis rather than a quantitative analysis. This synthesis allowed for a more

detailed exploration of the study content but limited opportunities for generalisability. While the approach is valuable, future studies could benefit from a narrower focus to allow for quantitative synthesis where feasible, contributing to a more precise evidence base.

Conclusion

This systematic review examined the prevalence of Speech, Language and Communication Needs (SLCN) and wellbeing issues in children aged 5–8 years in research published during the post-pandemic period. While the review identified clear links between SLCN and children's wellbeing, several key findings emerged. First, there is limited direct evidence specifically examining the pandemic's impact on this age group, with only one included study explicitly reporting on the pandemic effects on participants. Secondly no universal standard exists for SLCN assessment, limiting international comparability including the ability to position Wales within a global context. Third, targeted intervention studies focusing specifically on language development for this population were notably absent from the literature.

The findings highlight that service access, resource availability, and socioeconomic factors significantly influence both the identification and management of SLCN. Despite these challenges, the review provides a foundation for understanding current approaches to supporting children with SLCN and identifies critical gaps requiring further research. Moving forward, enhanced screening services, standardised assessment tools, wellbeing-focused interventions, and multi-stakeholder collaboration are essential to address the systemic issues affecting children with SLCN as they progress through primary education.

Recommendations for Practice

Although challenges in study heterogeneity limited the review's ability to address all research questions, several actionable recommendations have emerged: (i) *Enhanced Screening Services*: The application of standardised tools, such as the Clinical Evaluation of Language Fundamentals (CELF) and the Children's Communication Checklist (CCC-2), should be implemented early. This may mitigate the long-term effects of SLCN, particularly for children from socio-economically

disadvantaged backgrounds, who are at increased risk of delays (Davidson et al., 2022). (ii) *Accessibility of Assessment and Early Intervention Programmes*: Ensuring the availability of assessment and early intervention programs across multiple languages is critical for inclusivity, ensuring children are assessed in their preferred language. Training for parents to incorporate language-promoting activities, like shared reading, could bridge developmental gaps, especially for children from lower-income backgrounds impacted by pandemic-related social restrictions (Finders et al., 2023). (iii) *Wellbeing Focus in SLC Interventions*: Addressing the socio-emotional impacts of SLCN is essential. Studies reveal a high prevalence of anxiety and behavioural issues in children with Developmental Language Disorder (DLD) (Burnley et al., 2023; Chutko et al., 2022). Combining mental health and SLC support can foster both language and social skills. Teacher training on SLCN awareness and behaviour management could further support children's holistic wellbeing in educational settings. (iv) *Engagement with Multiple Stakeholders*: A coordinated, cross-sector approach between health, education, and social services can ensure comprehensive care for children with SLCN, preventing fragmented support. Team-based support, as highlighted by Burnley et al. (2023), can provide tailored interventions for children who may face wellbeing challenges, especially post-pandemic. (v) *Standardising Assessment Tools across Wales*: Consistency in assessment tools can offer a clearer national view of SLCN prevalence, aiding in identifying best practices and tracking interventions' success. Culturally relevant standardised tools would particularly benefit Welsh children in bilingual environments, ensuring fair representation (Davidson et al., 2022). (vi) *Research and Monitoring for Post-Pandemic Effects*: Longitudinal research is needed to fully understand the pandemic's impacts on children's SLC and wellbeing, focusing on both immediate and longer-term developmental changes. Collaboration between language service providers, educational institutions, and local authorities can enhance data collection and analysis, as demonstrated in studies like Wilder and Redmond (2022).

Conflict of Interest

This review was conducted as part of a wider funded research project into the post-pandemic impacts on Speech, Language and Communication needs for children aged 5–8.

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References

- Adams, L., Coberun-Crane, S., Taylor, J. and Wilkinson, A. (2023). *Pulse survey of childcare and early years providers*. Department for Education research report. <https://www.gov.uk/government/publications/the-impact-of-rising-costs-on-childcare-and-early-years-providers>
- Andrés-Roqueta, C., Garcia-Molina, I. and Flores-Buils, R. (2021). Association between CCC-2 and structural language, pragmatics, social cognition, and executive functions in children with developmental language disorder. *Children*, 8(2), 123. DOI: <https://doi.org/10.3390/children8020123>
- Anthony, J. L., Lonigan, C. J., Burgess, S. R., Driscoll, K., Phillips, B. M. and Cantor, B. G. (2011). Preschool phonological sensitivity: A quasi-parallel progression of word structure awareness and phoneme sensitivity. *Journal of Experimental Child Psychology*, 108(2), 213–33. DOI: <https://doi.org/10.1016/j.jecp.2010.09.010>
- Bhattacharyya, N. (2015). The prevalence of pediatric voice and swallowing problems in the United States. *The Laryngoscope*, 125(3), 746–50. DOI: <https://doi.org/10.1002/lary.24931>
- Bercow, J. (2008). *The Bercow report: A review of services for children and young people (0–19) with speech, language, and communication needs*. UK Government. Available at: <https://dera.ioe.ac.uk/8405/> (accessed 03 March 2026).
- Beard, R. (2018a). *Speech, language, and communication in early years education: Foundations for literacy*. Routledge.

- Beard, A. (2018b). Speech, language and communication: a public health issue across the lifecourse. *Paediatrics and Child Health*, 28(3), 126–31. DOI: <https://doi.org/10.1016/j.paed.2017.12.004>
- Best Beginnings, Home-Start UK & Parent-Infant Foundation (2020). *Babies in Lockdown: listening to parents to build back better*. Home-Start UK. Available at: <https://www.home-start.org.uk/Handlers/Download.ashx?IDMF=582bdd56-8950-452d-8b2e-52348a5788d9> (accessed 03 March 2026).
- Bond, A. (2022). *Parental involvement with schooling and parental engagement with their children's learning in disadvantaged areas in Wales*. Cardiff University.
- Boyle, J. (2011). Speech and language delays in preschool children. *British Medical Journal*, 343, 430–1. DOI: <https://doi.org/10.1136/bmj.d5181>
- Brown, S. M., Doom, J. R., Lechuga-Peña, S., Watamura, S. E. and Koppels, T. (2020). Stress and parenting during the global COVID-19 pandemic. *Child Abuse & Neglect*, 110, 104699. DOI: <https://doi.org/10.1016/j.chiabu.2020.104699>
- Bryan, K., Freer, J. and Furlong, C. (2007). Language and communication difficulties in juvenile offenders. *International Journal of Language & Communication Disorders*, 42(5), 505–20. DOI: <https://doi.org/10.1080/13682820601053977>
- Burnley, L., Creer, A. and Elward, R. (2023). The prevalence of anxiety and other socio-emotional and behavioural difficulties in children with DLD. *Child Language Teaching and Therapy*, 39(1), 41–60. DOI: <https://doi.org/10.1177/0265659022114291>
- Clegg, J., Hollis, C., Mawhood, L. and Rutter, M. (2005). Developmental language disorders – a follow-up in later adult life. Cognitive, academic and adjustment outcomes. *Journal of Child Psychology and Psychiatry*, 46(2), 128–49. DOI: <https://doi.org/10.1111/j.1469-7610.2004.00342.x>
- Davidson, L., Ballantyne, K. and Holcomb, K. (2022). Access to speech and language services among children aged 3–17. *Journal of Speech, Language, and Hearing Research*, 65(2), 548–58. DOI: https://doi.org/10.1044/2021_JSLHR-21-00189
- Denman, D., Speyer, R., Munro, N., Pearce, W. M., Chen, Y. W. and Cordier, R. (2021). Psychometric properties of language assessments for school-aged children: A systematic review. *Frontiers in Psychology*, 12, 2055. DOI: <https://doi.org/10.3389/fpsyg.2021.687202>
- Early Intervention Foundation (2020). Improving early language outcomes. <https://www.eif.org.uk/>
- Education Endowment Foundation (2020). *Impact of school closures on the attainment gap: Rapid evidence assessment*. EEF. Available at: [https://educationendowmentfoundation.org.uk/public/files/EEF_\(2020\)_Impact_of_school_closures_on_the_attainment_gap.pdf](https://educationendowmentfoundation.org.uk/public/files/EEF_(2020)_Impact_of_school_closures_on_the_attainment_gap.pdf)
- Education Policy Institute (2021). An investigation of young children's language and behaviour in relation to developmental delays. Retrieved from <https://epi.org.uk/>
- Elliott, N.L. (2011). *An investigation into the communication skills of unemployed young men*. University of South Wales.

- Finders, M., Wilson, R. and Duncan, A. (2023). Language development and the effects of social context: Exploring the word gap. *Language and Education*, 37(3), 291–309. DOI: <https://doi.org/10.1080/09500782.2023.2178145>
- Fox, C. B., Israelsen-Augenstein, M., Jones, S. and Gillam, S. L. (2021). An evaluation of expedited transcription methods for school-age children's narrative language: Automatic speech recognition and real-time transcription. *Journal of Speech, Language, and Hearing Research*, 64(9), 3533–54
- Frizelle, P., Thompson, P. A. and Bishop, D. V. M. (2021). The effectiveness of language interventions in children with developmental language disorder: A systematic review. *International Journal of Language & Communication Disorders*, 56(5), 909–27. DOI: <https://doi.org/10.1111/1460-6984.12632>
- Henry, L., Messer, D. and Nash, G. (2022). Improving working memory and language comprehension in children with developmental language disorder. *British Journal of Educational Psychology*, 92(1), 55–74. DOI: <https://doi.org/10.1111/bjep.12376>
- Hollo, A., Wehby, J. H. and Oliver, R.M. (2014). Unidentified language deficits in children with emotional and behavioral disorders: A meta-analysis. *Exceptional Children*, 80(2), 169–86. DOI: <https://doi.org/10.1177/001440291408000203>
- Hong, Q. N., Pluye, P., Fàbregues, S., Bartlett, G., Boardman, F., Cargo, M., ... and Vedel, I. (2018). Mixed methods appraisal tool (MMAT), version 2018. Registration of copyright (#1148552), Canadian Intellectual Property Office, Industry Canada.
- Hutchings, J., Lothian, R., Jones, A. and Williams, M. E. (2024). Exploring the feasibility and acceptability of a brief online dialogic Book-Sharing training for teaching support staff. *Children*, 11(12), 1423. DOI: <https://doi.org/10.3390/children11121423>
- Ilic-Savic, A. and Petrovic-Lazic, M. (2023). Quality of life among children with speech and voice disorders in Serbia. *International Journal of Pediatric Otorhinolaryngology*, 162, 111390. <https://doi.org/10.1016/j.ijporl.2023.111390>
- Jones, D. E., Greenberg, M. and Crowley, M. (2015). Early social-emotional functioning and public health: The relationship between kindergarten social competence and future wellness. *American Journal of Public Health*, 105(3), 2283–90. DOI: <https://doi.org/10.2105/ajph.2015.302630>
- Kallitsoglou, A. and Topalli, P. Z. (2024). Home-schooling and caring for children during the COVID-19 lockdown in the UK: Emotional states, systems of support and coping strategies in working mothers. *Frontiers in Sociology*, 9, 1168465. DOI: <https://doi.org/10.3389/fsoc.2024.1168465>
- Knight, C., Lowthian, E., Crick, T., Jones, C., Rees, S. and Rawlings, A. (2025). Sociodemographic Trends in Special Educational Needs Identification in Wales. *British Educational Research Journal*, 51(1), 466–87. DOI: <https://doi.org/10.1002/berj.4083>
- Knight, C., Tyrie, J., Crick, T. and Borrás Batalla, M. (2023). A Delphi Study to identify strategies to mitigate the adverse impact of COVID-19 on children under the age of five in Wales. *Wales Journal of Education*, 25(2). DOI: <https://doi.org/10.16922/wje.25.2.2>

- Langbecker, D., Snoswell, C. L., Smith, A. C., Verboom, J. and Caffery, L. J., 2020. Long-term effects of childhood speech and language disorders: A scoping review. *South African Journal of Childhood Education*, 10(1), 1–13.
- Larson, A. L., Barrett, T. S. and McConnell, S. R. (2020). Exploring early childhood language environments: A comparison of language use, exposure, and interactions in the home and childcare settings. *Language, Speech, and Hearing Services in Schools*, 51(3), 706–19. DOI: https://doi.org/10.1044/2019_LSHSS-19-00066
- Law, J., Reilly, S. and Snow, P. C. (2013). Childhood language delay: Implications for behaviour and mental health. *Journal of Child Psychology and Psychiatry*, 54(7), 724–32. DOI: <https://doi.org/10.1111/jcpp.12063>
- Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P., Clarke, M., Devereaux, P. J., Kleijnen, J. and Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate healthcare interventions: explanation and elaboration. *BMJ*, 339. DOI: <https://doi.org/10.1136/bmj.b2700>
- Locke, A., Ginsborg, J., and Peers, I. (2002). Development and disadvantage: implications for the early years and beyond. *International Journal of Language & Communication Disorders*, 37(1), 3–15. DOI: <https://doi.org/10.1080/13682820110089911>
- Marchant, E., Todd, C., James, M., Crick, T., Dwyer, R., and Brophy, S. (2021). Primary school staff perspectives of school closures due to COVID-19, experiences of schools reopening and recommendations for the future: a qualitative survey in Wales. *PLOS ONE*, 16(12), e0260396. DOI: <https://doi.org/10.1371/journal.pone.0260396>
- McConkey, R., Kelly, M. and Cassidy, A. (2021). Speech and language difficulties in Irish children aged 5 and 9 years: A longitudinal analysis. *Irish Journal of Psychological Medicine*, 38(4), 243–51. DOI: <https://doi.org/10.1017/ipm.2021.16>
- Melhuish, E., Ereky-Stevens, K., Petrogiannis, K., Ariescu, A., Penderi, E., Rentzou, K., ... and Leseman, P. (2015). A review of research on the effects of Early Childhood Education and Care (ECEC) upon child development. Available at: https://ecec-care.org/fileadmin/careproject/Publications/reports/new_version_CARE_WP4_D4_I_Review_on_the_effects_of_ECEC.pdf (accessed 03 March 2026).
- Munn, Z., Barker, T. H., Moola, S., Tufanaru, C., Stern, C., McArthur, A. and Aromataris, E. (2020). JBI's systematic reviews: Data extraction and synthesis. *American Journal of Public Health*, 110(1), 118–19. DOI: <https://doi.org/10.2105/AJPH.2019.305521>
- Nathan, L., Stackhouse, J., Goulondris, N. and Snowling, M. J. (2004). The Development of Early Literacy Skills Among Children With Speech Difficulties: A Test of the 'Critical Age Hypothesis'. *Journal of Speech, Language, and Hearing Research*, 47(2), 377–91. DOI: [https://doi.org/10.1044/1092-4388\(2004\)031](https://doi.org/10.1044/1092-4388(2004)031)
- Norbury, C. F., Gooch, D., Wray, C., Baird, G., Charman, T., Simonoff, E., Vamvakas, G. and Pickles, A. (2016). The impact of nonverbal ability on prevalence and clinical presentation of language disorder: Evidence from a population study. *Journal of child psychology and psychiatry*, 57(11), 1247–57. DOI: <https://doi.org/10.1111/jcpp.12573>

- OECD (2023). PISA report on the impact of COVID-19 on reading skills in Wales. Organisation for Economic Co-operation and Development. Retrieved from <https://www.oecd.org/>
- Pereira, A. and Lousada, M. (2023). Assessment measures in pragmatic interventions for children with developmental language disorder: A systematic review. *Journal of Pragmatics*, 205, 12–24. DOI: <https://doi.org/10.1016/j.pragma.2023.01.002>
- Rajmil, L., Hjern, A., Boran, P., Gunnlaugsson, G., De Camargo, O. K. and Raman, S. (2021). Impact of lockdown and school closure on children's health and well-being during the first wave of COVID-19: a narrative review. *BMJ Paediatrics Open*, 5(1), e001043. <https://doi.org/10.1136/bmjpo-2021-001043>
- Roulstone, S., Law, J., Rush, R., Clegg, J. and Peters, T. J. (2011). Investigating the role of language in children's early educational outcomes. *International Journal of Language & Communication Disorders*, 46(6), 632–43. DOI: <https://doi.org/10.1111/j.1460-6984.2011.00012>
- Stinton, C. (2018). Supporting early years speech, language, and communication development: Foundation stage forum insights. *Early Years Bulletin*, 24(1), 34–47.
- Welsh Government (2020). *Talk with Me: Speech, language and communication delivery plan 2020 to 2022*. Welsh Government. Available at: <https://www.gov.wales/talk-me-speech-language-and-communication-delivery-plan> (accessed 03 March 2026).
- Welsh Government (2023). *Evaluation of the Additional Learning Needs System: Scoping Report*. Cardiff: Welsh Government. GSR report no. 116/2023. Available at: https://www.gov.wales/sites/default/files/statistics-and-research/2023-12/evaluation-of-the-additional-learning-needs-system-scoping-report_0.pdf (accessed 03 March 2026).
- Whiting, P., Rutjes, A. W. S., Dinnes, J., Reitsma, J. B., Bossuyt, P. M. M. and Kleijnen, J. (2004). Development and validation of methods for assessing the quality of diagnostic accuracy studies. *Health Technology Assessment*, 8(25), 1–234. DOI: <https://doi.org/10.3310/hta8250>
- Wilder, J. and Redmond, S. M. (2022). Reliability of language sample analysis for children with developmental language disorder. *Journal of Communication Disorders*, 98, 105080. DOI: <https://doi.org/10.1016/j.jcomdis.2022.105080>
- Wu, L., Zhang, L. and He, Q. (2023). Prevalence and risk factors of developmental language disorder in Mandarin-speaking children. *Journal of Speech, Language, and Hearing Research*, 66(3), 786–99. DOI: https://doi.org/10.1044/2023_jslhr-21-00199