Collaborative working between SLTs and teaching staff in mainstream UK primary schools: A scoping review.

Abstract

Support for school-age children with Speech, Language and Communication Needs (SLCN) usually takes place within the school setting. Successful outcomes for children with SLCN rely on effective collaborative working between Speech and Language Therapists (SLTs), school staff and families. We need to understand the current evidence regarding the joint working practices, relationships and collaboration experiences of SLT and teaching staff within mainstream primary schools, in order to identify whether sufficient research exists for a systematic review within this field, and to inform practice.

The purpose of this scoping review was to identify what research currently exists regarding collaboration, roles and relationships of SLTs and teaching staff within mainstream UK primary schools, and clarify the nature, participants and concepts described within this literature.

A scoping review framework was used, consisting of identification of the review objectives, identification of relevant studies, study selection and iterative searches, data charting, and reporting of the results. Information regarding research question, participants, data collection and analysis, and terms used for key concepts was extracted.

This scoping review identified 14 papers, however collaboration was the primary focus of only 5 of these. Clarity and perceptions of roles was a key theme within 6 of the papers. Whilst facilitators and barriers to collaboration are discussed in all 14 papers, only 4 studies aimed to investigate barriers and facilitators. Teaching assistant (TA) views are underrepresented within the research. Drawing conclusions from the body of research is challenging due to the varied way in which the key concept ’collaboration’ is used. Currently, there is insufficient literature to carry out a systematic review. This scoping review highlights the need for research that considers collaboration within the complex social network of school staff (including TAs) and SLTs, in order to ensure that future guidance is rooted in research.

Introduction

In total, 1.4 million children in the UK have speech, language and communication needs (SLCN), which is more than 10% of children (ICAN and RCSLT, 2018). Within the UK special educational needs (SEN) system, it is the most common type of special educational need for children classified as in need of SEN support in mainstream primary schools, with 262,400 pupils requiring support (Department for Education, 2022). These needs impact on educational attainment, social, emotional and mental health, and life chances (ICAN and RCSLT, 2018).

In the UK, Mainstream (non-specialist) primary schools are the educational placement for children aged 4-11 years old, who do not require education in a special school (a school which specialises in an area of special educational needs) (Education Act, 1996). Both health and education services have a responsibility for meeting the needs of children with SLCN (Law et al., 2002) in mainstream primary schools. The child’s family, their teachers and teaching assistants, and wider school staff, all have a role in supporting the child’s day-to-day communication and development of communication
skills. Other professionals from health (i.e. Speech and Language Therapists (SLTs)) or education (e.g. Educational Psychologists, specialist teachers) may also be involved. That these different professionals should work together collaboratively to support children is assumed best practice (Forbes and Watson, 2012). Laws and government guidance within the UK (Children and Families Act, 2014; Every Child Matters, 2003; SEND Code of Practice, 2015) repeatedly stress the need for health and education services to work together. Collaborative working appears to be “thought capable of delivering ‘effectiveness’ and ‘excellence’ in even the most challenging of circumstances” (Forbes and Watson, 2012: page 4).

The roles of a SLT working in a mainstream school include assisting and supporting schools to identify SLCN, developing inclusive school environments, and supporting whole school approaches (RCSLT, 2018). When a child is not making expected progress with their communication skills despite school-led support, they may require individualised support for SLCN with input from a SLT (Ebbels et al., 2019), which should be designed collaboratively with schools and families (RCSLT, 2018). The role of a SLT working in mainstream schools therefore relies on collaborative working between the SLT(s), school staff, and families. Where individualised SLCN support is required (as opposed to techniques being incorporated in class teaching), interventions may be delivered entirely or partially by the SLT, class teacher or teaching assistants/learning support assistants (TA/LSAs) (Ebbels et al., 2019). In practice, interventions will often be delivered by TAs, supported and monitored by a SLT (Bercow, 2008; Dockrell et al., 2006). When interventions are delivered by someone other than a SLT in this way, this is described as indirect intervention (e.g. Ebbels et al., 2019). A UK survey by Pring et al. (2012) found that a typical SLT spends slightly more than a quarter of their time on tasks related to indirect intervention (via parents or other professionals), slightly more time than they spend on direct intervention. SLTs also work with teachers and TAs to improve children’s communication skills within the whole classroom context. This could range from a SLT providing advice or strategies to apply in the classroom (with the SLT positioned as the expert advisor), to collaborative planning and team-teaching. However, historically it has been the former rather than the latter; for example Wright and Graham (1997) found that only 35% of SLTs working in mainstream schools engaged in joint planning with class teachers.

Support for SEN within UK schools is the responsibility of the Senior Management Team (who oversee SEN provision), the special educational needs co-ordinator (SENCO), and class teachers (SEND Code of Practice, 2015), with TAs also providing SEN support. All these teaching professionals form a complex social network within a school, with knowledge and expertise being shared between staff members (Penuel et al., 2009). There will be a mutual impact of levels of understanding of SLCN, staff attitudes and approach to supporting SLCN. TAs are the lowest paid and often least qualified members of staff (despite sometimes being highly experienced, Law et. 2002) and as such may feel they have the least influence on support that takes place. Legally, the class teacher has responsibility for the interventions that a TA applies out of class (SEND Code of Practice, 2015), however in practice TAs are often responsible for delivering, adapting and monitoring the efficacy of indirect interventions, and in some cases also for planning the interventions (Blatchford et al., 2012). The SEND Code of Practice (2015) also states that the teacher needs to work in close collaboration with the TA as well as with specialists when planning interventions. Liaison between the SLT and TA is sometimes, anecdotally, reported to take place without the teacher present. Therefore, the teacher may not always be participating in the collaborative process. The extent to which SLTs spend time liaising with TAs, compared to collaborative interactions involving both TAs and teachers, is an underexplored area in current research. Furthermore, a thorough understanding of how SLTs’ working relationships interlink with the other working relationships within a mainstream school may support understanding of how to make these more effective.
Research into the efficacy of TAs delivering SLT interventions found that some indirect interventions are effective when delivered under direct supervision from a SLT, or when delivered by TAs with a qualification in SLCN (Boyle et al., 2009; McCartney et al., 2011; Mecrow et al., 2010). However, the study by McCartney et al. (2011) found that the same intervention was not found to be effective when delivered by teachers or TAs without additional qualifications in SLCN, and SLT input was limited to identifying targets, planning intervention and one mid-intervention meeting. Whilst McCartney et al. (2011) propose that this is due to the amount of training and ongoing supervision the SLT provided, the teachers’ and TAs’ understanding of their roles and responsibilities, and valuing these, may also have affected the success of the intervention. In summary, support for children’s SLCN relies on the SLT, and teaching staff collaborating effectively and understanding and fulfilling their roles in supporting children’s communication skills.

Despite the evidence above, there has not been a systematic review of the literature into collaborative working between SLTs and teaching staff, to help us understand how collaboration occurs, what leads to effective collaboration, and to understand perceived roles and responsibilities. Whilst collaboration may be discussed within papers investigating SLT interventions delivered by teaching staff, it is unclear what specific research there is into SLT and teaching staff collaboration. This research may also be contained within analyses of working relationships of wider school or health staff. A scoping review is needed to identify whether there is sufficient evidence for a systematic review within this field, or whether there are gaps within the evidence base requiring further research. A shared understanding of the roles, and how to develop positive relationships and collaborative working, would greatly support the working of SLTs and teaching staff. Ultimately, improving the relationships between school staff and SLTs may improve the educational and social experience of children with SLCN within mainstream schools, and maximise the efficacy of SLT support for these children.

The overarching review question asks what evidence currently exists regarding the joint working practices, relationships and collaboration experiences of SLT and teaching staff within mainstream primary schools. The review objectives were:

1. To identify what research there is into collaboration, roles and relationships between SLTs and teaching staff within mainstream UK primary schools;
2. To clarify the nature of the existing research into collaboration in terms of aims;
3. To clarify the nature of the existing research into collaboration in terms of methodology;
4. To clarify which primary school staff (teachers, TAs, SENCOs) are included within the collaboration literature;
5. To clarify how the concepts of roles/relationships/collaborative working are described in the literature.

Methods

A scoping review methodology is appropriate (rather than systematic review methodology), because due to the lack of information available within this field, it is unclear where the boundaries of a systematic review should fall to encompass all relevant knowledge yet ensure it is applicable. This scoping review maps the evidence that spans health and education, and which includes SLTs working with all mainstream schools teaching staff (rather than specifically teachers, TAs or SENCOs). Furthermore, since the concepts of roles, relationships and collaboration may be used and interpreted differently by different authors, the ways in which these concepts are described are considered to ensure that any future systematic review searches include all relevant literature.

Evidence was included in the scoping review if it met the following criteria:
- Published within peer-reviewed journals and meeting the inclusion and exclusion criteria
- Included within the references of the papers identified meeting inclusion and exclusion criteria, and published within peer-reviewed journals, as long as this evidence also met the inclusion and exclusion criteria itself. This was the iterative search stage as described below.
- Published in the last 20 years, due to changes in the world of education and healthcare, particularly in terms of the approaches to SEN support in schools (and whose responsibility this is), and SLT services becoming less clinic-based and more integrated in schools (Law et al. 2002).
- Research took place within the UK (England, Northern Ireland, Scotland, Wales), as the healthcare and education systems in other countries vary and so evidence may not be applicable.
- Published in the English language, as there are insufficient resources to translate evidence for this scoping review, and it is highly likely that evidence from the locations examined would be available in the English language.

Further eligibility criteria were considered using the Population, Concept and Context framework (Peters et al., 2020):

**POPULATION**
- TAs, teachers and SENCOs. The TAs should work directly with the children, individually or in groups delivering teaching or an activity programme provided by a SLT;
- SLTs;
- The above teaching staff and SLTs should be working with mainstream primary school-aged children with SLCN and their families.

All of the above population criteria needed to be referenced within the abstract, but not all of the groups needed to be participants for it to be included within the review (e.g. qualitative investigations into mainstream primary school teachers’ experiences of collaborating with SLTs were included, even though SLTs were not participants in the research).

**CONCEPT**
The concept of collaborative, or joint working between mainstream school teaching staff and SLTs is central to this scoping review. Evidence considering how these staff groups work together (perceptions of the roles of each professional), perceptions of the efficacy and benefits of collaborative working, and possible barriers and facilitators to joint working were all included as eligible topics. Discussion of roles or relationships must have been referred to within the evidence for a paper to be included.

Studies which focused on the efficacy of an intervention being delivered by a TA were only included if there was analysis of roles and relationships between the teaching staff and/or SLTs involved in the intervention.

**CONTEXT**
Evidence was identified relating to UK mainstream primary schools, where SLTs work with the school. SLTs working both for the NHS, and in independent practice (for example being paid for by the school, or individual parents) were considered as long as the SLT worked within mainstream primary schools.
TYPES OF SOURCES OF EVIDENCE
Primary research studies, meta-analyses, and systematic reviews were included. Guidelines and commentaries were not included.

Protocol and registration
The scoping review was conducted following JBI methodology for scoping reviews (Peters et al., 2020). An a priori protocol was first developed, defining the objectives, methods and reporting processes for the review. The inclusion and exclusion criteria, and the data to be extracted from the evidence, was included in the protocol. The PRISMA-ScR (Tricco et al., 2018) was used to ensure the scoping review conformed to the PRISMA scoping review reporting standards. The scoping review protocol was registered on Figshare (registration number 20392815), as recommended in Pollock et al. (2021).

Search Strategy
The initial set of key terms was identified through discussion within the research team, which included experts in Speech and Language Therapy, Linguistics, Education and Psychology.

Following the JBI guidance (Peters et al., 2020), an iterative search strategy was used. This review included five key stages:

1. Initial pilot search: limited search of an appropriate online database (Ovid Medline, due to its coverage of Allied Health Professionals) using the initially identified key terms. The titles and abstracts of these papers, and key words, were analysed and relevant key words were added to the search string. These terms were then used in the search across all included databases.
2. Full searches: Studies published within peer reviewed journals were found via Medline, CINAHL, PubMed, EMBASE, PsycINFO and ERIC databases. These databases cover a broad range of journals pertaining to medicine, psychology (including child development and education) and the allied health professions. Keywords and index terms were adapted for databases only when required (e.g. due to these not being included as index terms in that database). As an example, the search strategy for CINAHL is included as appendix A.
3. Duplicates of identified papers were deleted. The title and abstract of all papers identified were then screened to identify whether the paper met the eligibility criteria.
4. The full text of papers meeting the eligibility criteria was then read to identify whether papers still met the eligibility criteria.
5. Iterative searches: The reference list of identified reports and articles were searched, and additional evidence identified was added.

Table 1: Search terms

<table>
<thead>
<tr>
<th>Population</th>
<th>Teacher OR Teaching OR SENCO OR “Learning Support” AND Child* / NOT Adult Speech and Language Therapists/Pathologist: “Speech and Language Therap*” OR “Speech and Language Path***”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concept</td>
<td>Relationship OR Practices OR Attitude OR Barriers OR Facilitators OR Collaboration OR Interprofessional OR Inter-professional OR Perceptions OR Role OR Responsibilities OR Duties</td>
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Boolean operators were used to combine the search terms as indicated in Table 1. Key terms referring to mainstream primary school-aged children with SLCN and their families were not included, as it was agreed that the terms within population would imply this population. ‘Teacher’ or ‘Teaching’ were used (rather than ‘teach*’) as this search term aimed to select papers focusing on the population of teaching staff. The use of the broader search term ‘teach*’ would have led to the identification of papers with key words ‘teach’ and ‘teaches’ which likely would have resulted in additional papers being identified which did not focus on the staff, but on wider educational practice. The abbreviation SLT/SLP (for Speech and Language Pathologist) was not included as a search term as papers would be expected to use the full term within the title or abstract. A filter was applied to limit the research to that from the last 20 years. The third author ([redacted]), independently screened all of the papers at stage 4 (i.e. reading the papers whose titles and abstracts met the eligibility criteria, to identify whether these should be included in the review), to ensure reliability. There was 88% agreement between the two raters, and the four remaining papers were discussed and agreement was reached on whether to include or exclude these. Mendeley was used to manage the search results, and data was extracted into Microsoft Excel spreadsheets.

**DATA EXTRACTION**

The following information was extracted from the titles and abstracts of all papers identified in the initial database searches: authors, year of publication, professions considered, setting, references to key terms of roles/relationships, location. These supported the identification of whether the papers met the eligibility criteria, and enabled clear identification of why papers were screened out of this scoping review to guide further systematic reviews.

Once the final papers for inclusion were identified, the following data was extracted from the full texts: authors, year of publication, journal, methodology, analysis, participants, how key concepts are described (Table 2). The professional background of the paper authors was included as described in the article, where this was explicitly stated in the paper. When the professional background of the authors was not explicitly stated, the departments within which the researchers worked was provided instead as a reflection of the professional backgrounds and research contexts. The research questions of each paper that were relevant to this scoping review were identified from the abstracts and methods, and have been summarised for clarity. Numbers and roles of participants were extracted, making it clear when this information was not provided in the paper.

Methodology (methods of data collection and data analysis) was recorded as described in the papers. Lastly, the way in which the key concept of collaboration, or working relationships, was defined and used was identified. Where the paper’s keywords were relevant, these are stated first (with ‘keywords’ in brackets to indicate this). Following this,
the terms and concepts used to refer to collaboration were identified through reading the papers and are reported.

**Results**

What research is there into collaboration, roles and relationships between SLTs and teaching staff within mainstream UK primary schools?

The PRISMA flowchart (Figure 1) details number of papers identified, screened and removed at each stage of the search process.

**Figure 1: PRISMA flowchart**

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Ovid Medline Search
Titles, abstracts and key words analysed, relevant key words added to search string

Search of all databases using full search string.
156 papers identified

Duplicates removed = 59

Title and Abstract screened to identify whether paper met eligibility criteria
97 papers screened

Papers removed = 63

Full text screened
Data collected and charted
34 papers screened

Papers removed = 21

References of included texts screened and any additional sources screened following the above steps
Additional papers identified = 1

Final papers for inclusion identified
14
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Following the search and screening process, 14 papers were found which met the inclusion and exclusion criteria, 13 of which resulted from the initial search, and one further through analysis of the included articles’ references. This evidence was reported within seven different journals and there was also one report published by the Nuffield Foundation.

**Journal and Professional Background**

Out of the peer reviewed journal articles, nine of the papers were within three journals whose readership is primarily those interested in child language development (which may include professionals from disciplines such as SLT, linguistics, education and psychology): International Journal of Language and Communication Disorders (Baxendale et al., 2013; Lindsay et al., 2010; McKean et al., 2017), Child Language Teaching and Therapy (Baxter et al., 2009; Greenstock and Wright, 2011; Law et al., 2002; McCartney et al., 2010; Mroz 2006), and Alternative and Augmentative Communication (Lynch et al., 2019). The four other papers were published within journals whose readership may be more likely to be education professionals: Child: Care, Health and Development (Mukherjee et al., 2002), European Journal of Special Needs Education (Band et al., 2002), Educational Review (Davies et al., 2004), and Discourse: Studies in the Cultural Politics of Education (Forbes et al., 2019).

The professional background of the research team was only explicitly stated in McKean et al. (2017), who had ensured that this represented SLT, teaching, children’s services policy and governance, health and education research. Nine papers appeared to have research teams with professional backgrounds within education and health (Band et al., 2002; Davies et al., 2019; Forbes et al., 2019; Law et al., 2002; Lindsay et al., 2002; Lindsay et al., 2010; McKean et al., 2017; Mroz 2006; Mukherjee et al., 2002). Five of the papers appeared to be by researchers with SLT/health backgrounds (Baxendale et al., 2013; Baxter et al., 2009; Greenstock and Wright 2011; Lynch et al., 2019; McCartney et al., 2010).

What are the aims of research in this field?

Collaboration was the primary focus of five papers (Band et al., 2002; Forbes et al., 2019; Law et al 2002; McCartney et al., 2010; McKean et al., 2017). The papers which do not focus primarily on collaboration consider collaboration as a theme within wider explorations of SLTs working in mainstream schools (Baxter et al., 2009; Law et al., 2002; Lindsay et al., 2002; Mukherjee et al., 2002), or as an aspect of the primary intervention (Baxendale et al., 2013; Davies et al., 2004) or sought to explore a specific area of healthcare professional/teacher practice, within which collaboration was then discussed (Greenstock and Wright, 2011; Lynch et al., 2019; Mroz 2006).

Six papers sought to describe current collaborative practices (Forbes et al., 2019; Lindsay et al., 2002; Lindsay et al., 2010; Lynch et al., 2019; McKean et al., 2017; Mukherjee et al., 2002). All papers described their participants’ views and experiences of collaborative practice, in varying extents. Mukherjee et al. (2002) describes participants’ views and experiences of communication with school staff. Four papers aimed to investigate barriers and facilitators to collaborative working (Davies et
those working with the 31 children in the study (papers Baxendale et al, 2004; Forbes et al, 2019; McKeen et al, 2017; Mukherjee et al, 2002). The remaining 10 papers all comment on possible barriers and facilitators within the discussions, but this was not an area directly researched.

What methodologies are used in this field?

Semi-structured interviews were the most common methodology, used in 11 of the 14 studies (all but Baxter et al, 2009; Lynch et al, 2019; McCartney et al, 2010). Semi-structured interviews were not always used with all participants, e.g. in Davies et al. (2004) the teachers and TAs were interviewed, but SLT experience was identified through analysing weekly diaries. Other methodologies of collecting participant data included discussion/focus groups (n = 4; Band et al, 2002; Law et al, 2002; Lynch et al, 2019; McCartney et al, 2010) and questionnaires (n = 3; Baxter et al, 2009; Law et al, 2002; McCartney et al, 2010). Lindsay et al. (2010) used a specific data collection tool, an “index of collaboration”. Two of the three studies using questionnaires went on to interview participants (Law et al, 2002; McCartney et al, 2010). As previously stated, SLT weekly diaries were analysed in Davies et al. (2004). Policy documents were examined in Lindsay et al. (2010).

Six of the studies were specific in the approach taken to analyse data and identify themes. Methodologies included framework analysis (Baxendale et al, 2013; Mukherjee et al, 2002), social capital theory (Forbes et al, 2019; McKeen et al, 2017), interpretive phenomenological analysis (Greenstock and Wright, 2011), and inductive thematic analysis (Lynch et al, 2019). Semi-structured interviews followed by thematic analysis were the main methods used by the papers describing current collaborative practices, used by five of these six papers. Lynch et al. (2019) carried out focus groups, analysing the data using thematic analysis. A qualitative approach is deemed the most suitable for this field of research; this includes research where the main aim is to map current practice.

Who are the participants within included papers?

In total, for the studies where numbers of participants were clear, parents (N = 73), teachers (N = 98), SLTs (N = 39) and TAs (N = 39) were participants in the research. Sample sizes ranged from one (SLT, Mukherjee et al, 2002) to a survey sent to all 129 SLT services in England and Wales (Lindsay et al, 2002).

Six papers questioned participants at the senior leadership level, e.g. headteachers, SLT service managers (Baxter et al, 2009; Forbes et al, 2019; Law et al, 2002; Lindsay et al, 2002; Lindsay et al, 2010; McKeen et al, 2017). One paper involved only participants within the health service (SLT, OT, Paediatrician, GP, doctors; Mukherjee et al, 2002). Three papers involved only participants within education (Baxter et al, 2009; Mroz 2006; with Baxendale et al, 2013 also including parents). The remainder of the papers (ten) involved participants from both health and education. When education staff and SLTs were questioned, six papers clearly included TAs (Baxter et al, 2009; Davies et al, 2004; Forbes et al, 2019; Lynch et al, 2019; McKeen et al, 2017; Mroz 2006). However, further analysis of these reveals relatively low numbers of TAs (n = 2, 2, 30, 1, unclear, 2). Baxter et al. (2009) carried out questionnaires with the 30 TAs in their research, the only sample where TA and teacher numbers were equivalent, however there were no SLTs involved in their research and they did not probe further than this questionnaire. Two papers included parents (Band et al, 2002; Baxendale et al, 2013). Numbers of participants, and/or their professions are unclear in five of the papers. Some included “education practitioners” or “others” without being specific about their roles (Band et al, 2002; Baxter et al, 2009; Law et al, 2002). Davies et al. (2004) gathered the views of those working with the 31 children in the study but did not clearly state if this was one teacher and
TA per child. Lindsay et al. (2010) clearly indicate the numbers of Local Authority and Primary Care Trust managers interviewed, but not how many SLTs or SENCOs were also present during the interviews.

McKean et al. (2017) had the widest breadth of participants, interviewing headteachers, SENCOs, Teachers, SLTs, Educational Psychologists, Two Higher Level TAs (TAs with an additional qualification in teaching and learning), health visitors, and language and communication teachers. Only five of the papers (Baxter et al., 2009; Baxendale et al., 2013; Davies et al., 2004; Forbes et al., 2019; McCartney et al., 2010) clearly report that the results are from staff working in mainstream primary schools only, or separate these from results of staff working with other age groups or in other settings. The other papers do not make this clear, include a broader age range, or specialist settings, but have been included due to meeting the inclusion criteria. Of the five papers that report just information from mainstream schools, only three obviously include TAs; Baxter et al., 2009, Davies et al., 2004, and Forbes et al., 2019.

How are the concepts of roles, relationships, and collaborative working defined and applied?

‘Collaboration’ is the term that was most frequently used, being the key term used in ten of the papers (all except Forbes et al., 2019; Law et al., 2002; Lynch et al., 2019; Mukherjee et al., 2002). Collaboration/collaborative/collaborate were used in the abstract or executive summary of seven of the papers (Band et al., 2002; Baxendale et al., 2013; Davies et al., 2004; Greenstock and Wright, 2011; Lindsay et al., 2002; Lindsay et al., 2010; Mckean et al., 2017). This term is used broadly, to refer to both collaboration in developing policy and practice at service/management level (Lindsay et al., 2010), and collaboration in the day-to-day work of teaching staff and SLTs (Baxendale et al., 2013).

A wide number of other terms are used alongside collaboration. Lynch et al. (2019) consider “cultural and contextual factors” which impact shared working, which includes ways of working, balancing decisions, information brokering, roles and responsibilities, team theory. Mukherjee et al. (2002) focus on communication, rather than collaboration. McKeen et al. (2017), and Forbes et al. (2019) talk about interagency working and social capital using the same data set. McCartney et al. (2010) produced a document to improve co-working procedures, focusing on the SLT and teacher, with the teacher providing support for language disorder in the classroom.

Clarity or perceptions of roles are considered in six of the papers (Band et al., 2002; Forbes et al., 2019; Greenstock and Wright 2011; Lynch et al., 2019; McKeen et al., 2017; Mukherjee et al., 2002). Band et al. (2002), Forbes et al. (2019), Lynch et al. (2019), Mukherjee et al. (2002) and McKeen et al. (2017) all identify as a theme shared understanding of roles, avoiding duplication. Band et al. (2002) report on parents’ perceptions of how well defined roles are. Attempts to clarify roles were also presented as a likely facilitator within two papers considering barriers and facilitators (Davies et al., 2004; McCartney et al., 2010). In several papers, the roles of the SLTs and teaching staff was not discussed but it was clear that it would have been relevant to the focus of the research (Baxter et al., 2009; Law et al., 2002; Mroz 2006).

Discussion

In order to fulfil their role in supporting children with SLCN in mainstream schools, SLTs and teaching staff need to work together collaboratively (RCSLT, 2018). Despite this, the current review has highlighted that there is limited research into this field, and that collaborative working is not always directly addressed. Some evidence investigated collaborative working as a secondary aim or theme, and a wider set of literature refers to collaboration within the discussion, conclusions and recommendations. Whilst policies and position papers (Every Child Matters, 2003; I CAN, 2008; The
Children’s Plan Building brighter futures, (2007) may call for improvements in collaboration, there needs to be additional consideration of how this might be achieved (Scott and Hofmeyer, 2007), particularly within the complex context of mainstream schools, as this could not be clearly determined from the papers in this review.

Clarity and perceptions of roles was one of the key themes within the literature identified. This includes whether supporting SLCN, and collaboration to support SLCN, is part of the role of teaching staff. The Health and Care Professions Council (HCPC) is the regulator of Speech and Language Therapists in the UK. The vital importance of SLTs working collaboratively is stated explicitly in the HCPC standards of proficiency (HCPC, 2022) and the Royal College of Speech and Language Therapists (RCSLT) guidance (RCSLT, 2021). The need for collaborative working with colleagues outside of the teaching profession is not as clearly stated in teachers’ professional standards; “develop effective professional relationships with colleagues, knowing how and when to draw on advice and specialist support” (DfE, 2011, p. 13). It is unclear whether “colleagues” here is taken to include agencies external to school such as SLT, but appears to position SLTs as an expert providing advice. This interpretation may be reinforced by the terminology “consultative model” (of SLT), which potentially places the SLT as the ‘expert’, visiting and advising school staff (Law et al., 2002) rather than a partner in providing support. The emphasis on the need to fully understand each others’ roles is echoed in the teaching research literature (e.g. Penuel et al., 2009).

The literature identified has a diverse range of research questions, which are addressed using almost entirely qualitative methodologies. Social capital theory is used by two of the papers as a framework to explore the relationships between school staff and SLTs. Due to the number of different relevant professional roles (SENCOs, senior leadership team, teachers, TAs, as well as SLTs), an overarching theory or framework to analyse the social inter-relations appears crucial, in order to balance the different roles and power held by different teaching staff. This is particularly important when seeking to capture the experiences of TAs within the system, who often have the main role in delivering indirect interventions (Blatchford et al., 2012).

As this topic spans two systems and professional groups: health (SLTs) and education (teaching staff), the research in this field needs to represent the practices within both groups and systems, and the resulting research needs to be accessible to both professions. This is represented in some, but not all of the papers identified; research teams comprising of researchers with backgrounds in both health and education research or services were in the majority, but most of the literature is published in language-focused journals, where it is less likely to reach teaching staff. To be likely to apply research to their practice, teachers need to find the research literature in their immediate surroundings, and they prefer practical educational literature that can be directly applied to teaching (Shkedi, 1998). The likely impact of future research within this field will be greatly strengthened by co-production by SLTs and teaching staff, and careful consideration of dissemination of findings.

Whilst facilitators and barriers to collaboration are frequently discussed in the literature, there is limited empirical research into these. Structural barriers (including working within different systems with different drivers) and time pressures are frequently described, and may be assumed to be the reasons for lack of collaboration. However, focusing on these practical aspects may lead to social-relational factors being overlooked. Further research into how proposed facilitators support collaboration in practice is required, otherwise incorrect assumptions may be made, or SLTs and teaching staff may not seek to improve collaboration in other ways if the practical hurdles cannot be overcome.

Drawing conclusions from the body of research is challenging due to the way in which the key concept ‘collaboration’ is used and described. This scoping review identified that collaboration is a
broad term which may reflect all levels from combined initiatives between health and education at a systems and structural level, to ‘on the ground’ processes and behaviours of SLTs and teaching staff. Related fields of research, such as communication between SLTs and school staff, will also inform practitioners’ collaborative practice. Terms such as ‘shared’, ‘interagency’, and ‘co-working’, are also used, implying collaboration. The use of different terms, and research focusing on aspects of collaboration such as communication, make it more challenging to synthesise the literature.

A systematic review of this literature would not be able to draw clear conclusions due to the papers that were identified not clearly separating or indicating the different participant groups. This was the case for the settings professionals worked in, e.g. combining data from primary and secondary schools, which are significantly different environments. It was also true for the participants’ professions (e.g. ‘educationalists’ instead of clearly indicating numbers of headteachers, teachers, TAs, SENCOs), who likely have different experiences and views. The largest participant group overall was teachers, with equal numbers of SLTs and TAs. In 2021, 50% of the school workforce were teachers, and 30% of the school workforce were TAs (DfE, 2021), and so TAs are clearly underrepresented in the existing research. A questionnaire was used to investigate the perceptions of the majority of TAs in this body of research in stark contrast to the semi-structured interviews with the majority of other participants. The three papers identified which clearly include TAs within research in mainstream primary schools only, have very different aims and methodologies, so cannot be synthesised. The amount of training and experience working with children who have SLCN, and working collaboratively with allied health professionals, varies widely between TAs (Law et al., 2012). The existing research does not fully capture the views and experiences of this diverse group.

Qualitative approaches dominate the literature, with semi-structured interviews being the main method. The methodologies used in the larger studies, e.g. discussion groups in Band et al. (2002), may have made it harder for TA voices to be heard, and they cannot be discerned from the data. Within discussion groups or 1:1 interviews, the suitability of the interviewer in terms of role dynamics needs to be carefully considered to ensure that the TAs’ contributions are not influenced or curtailed by the interviewer’s position.

**Limitations and future directions**

This scoping review only considered research within the mainstream primary school setting, within the UK. The inclusion criteria was broad due to this being a scoping review, however this led to papers being identified where data relevant to the mainstream school setting could not be extracted (i.e. from data relating to the Early Years or Secondary settings). It also led to the identification of papers where teachers only or SLTs only were participants.

Widening the boundaries of the scoping review to include research from other countries (e.g. Australia, which would add six additional papers) would add additional information. Similarly, extending to secondary school age would add three additional papers. These may contain useful information that could be applicable to the field, however the different contexts within which these papers are rooted would need to be acknowledged. Within Secondary Schools, far more teaching staff will work with a young person with SLCN, and the challenges relating to collaborative working with SLTs, and clarifying roles and responsibilities in supporting SLCN are likely to be more complex.

A detailed analysis of the extent to which collaboration was described within the papers identified was beyond the remit of this scoping review. This analysis, including whether sufficient details are
provided for the collaborative practice described to be replicable, would further inform future research in this field.

Conclusions

This scoping review reports the beginnings of a body of research into collaboration between teaching staff and SLTs. TA views are particularly lacking within the research, however collaborative working and the implementation of indirect SLT interventions often relies on TAs. Further research is required before a full systematic review of this field would be meaningful. It is recommended that future research in this field uses a methodology that considers the complex social network of school staff and SLTs, such as social capital theory, and makes sure that TAs are represented. The concept of ‘collaboration’ (or ‘social capital’) needs to be clearly defined, and consistently used, to enable clear identification or research within this area. Understanding perceptions of roles and responsibilities of all professionals supporting SLCN is a key theme arising from this scoping review, and is posited within the research as a facilitator to collaborative practice. It is hoped that collaboration in schools to support children with SLCN will be a continued area of research, and that future ‘best practice’ guidance will be rooted in research.

References


Department for Education. 2011. *Teachers’ Standards; Guidance for school leaders, school staff and governing bodies*. London: DfE.


Department for Education and Health. 2015. *Special educational needs and disability code of practice: 0 to 25 years Statutory guidance for organisations which work with and support children and young people who have special educational needs or disabilities*.


Royal College of Speech and Language Therapists. 2018. *Placing children and young people at the heart of delivering quality speech and language therapy: Guidance on principles, activities and outcomes*. London: RCSLT.


<table>
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<tr>
<th>Paper</th>
<th>Background of research team</th>
<th>Journal</th>
<th>Relevant research question (s)</th>
<th>Participants</th>
<th>Data collection</th>
<th>Data analysis</th>
<th>Terms used for key concepts</th>
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<tbody>
<tr>
<td>Band, Lindsay, Law, Soloff, Peacey, Gascoigne and Radford (2002)</td>
<td>Centre for Educational Development, Appraisal and Research (CEDAR), University of Warwick; Department of Language and Communication Science, City University; University of London Institute of Education</td>
<td>European Journal of Special Needs Education</td>
<td>What are parents’ perceptions of the extent and nature of collaboration between health and education professionals? Discussion groups then aimed to generate “innovative and practical ideas for facilitating future collaboration”.</td>
<td>65 parents. Roles and numbers of practitioners during 'research into practice' stage are unclear.</td>
<td>Qualitative data obtained from parent interviews and discussion groups with preset questions.</td>
<td>Cross-phase validation of data from interviews during the discussion groups</td>
<td>Health/education collaboration, professional roles (keywords)</td>
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<tr>
<td>Law, Lindsay, Peacey, Gascoigne, Soloff, Radford and Band (2002)</td>
<td>Department of Language and Communication Science, City University; CEDAR, University of Warwick; Institute of Education, London</td>
<td>Child Language Teaching and Therapy</td>
<td>To explore the meaning of consultation from the perspective of the practitioners concerned To examine consultation within the context of other issues related to the</td>
<td>Phase one: questionnaire sent to all SLT managers and 50% LEA managers (return numbers unclear). Phase two: SLT, teachers and EPs (SLTs 2-6 people in each group,</td>
<td>Questionnaire re. current provision, interviews with health and education leaders, workshop with all professionals</td>
<td>Phase 3 participants were asked comment on validity of findings from Phase 1 and 2 Some descriptive statistics of questionnaire information.</td>
<td>Consultative model, collaboration,</td>
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<thead>
<tr>
<th><strong>Citation</strong></th>
<th><strong>Authors</strong></th>
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<th><strong>Methodology</strong></th>
<th><strong>Main Findings</strong></th>
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<tr>
<td>CEDAR and Institute of Education, University of London</td>
<td>Lindsay, Dockrell, Mackie, Letchford (2002)</td>
<td>Investigated the policy and practice concerning the current provision for children with Specific Speech and Language Difficulties. Maps in detail the provision, and explores the rationale and decision-making processes.</td>
<td>Views of 97 LEAs, 129 SLT services (questionnaires), and interviews with 37 LEA representatives, 39 SLT service representatives, and heads of 38 speech and language SRBPs, 7 other special schools and 10 special speech and language schools</td>
<td>Semi-structured interviews</td>
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<tr>
<td>Department of Health Sciences, University of York</td>
<td>Mukherjee, Lightfoot and Sloper (2002)</td>
<td>How do local health staff communicate with schools? What are their views as to</td>
<td>1 SLT, 5 Consultant Paediatricians, 5 school doctors, 1 school nurse, 2</td>
<td>Semi-structured interviews</td>
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<tr>
<td>Reference</td>
<td>Organisation</td>
<td>Study Design</td>
<td>Research Methodology</td>
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<td>Davies, Shanks and Davies (2004)</td>
<td>Institute for Education Policy Research, Staffordshire University; Stockport Primary Care Trust; Trafford Healthcare NHS Trust</td>
<td>Educational Review</td>
<td>To describe the features of the intervention that promote effective collaboration</td>
<td>Teachers, TAs, SLTs, numbers unclear, those working with the 31 children in study</td>
</tr>
<tr>
<td>Mroz (2006)</td>
<td>School of Education, Communication and Language Sciences, University of Newcastle</td>
<td>Child Language Teaching and Therapy</td>
<td>Explores the results from professionals working in school-based settings about their training needs in speech and language.</td>
<td>Early years educators (25): 17 teachers, 5 nursery nurses, 3 classroom assistants.</td>
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<tr>
<td>Baxter, Brookes, Bianchi, Rashid, Hay (2009)</td>
<td>Academic Unit of Child Health, University of Sheffield; NHS Speech and Language Therapy Service</td>
<td>Child Language Teaching and Therapy</td>
<td>To explore the perceptions of school staff regarding a speech and language therapy service to mainstream schools in one</td>
<td>11 SENCOs, 34 teachers, 30 TAs, 10 headteachers 10 'others'</td>
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<tr>
<td>Study Authors</td>
<td>Institute</td>
<td>Journal</td>
<td>Methodology 1</td>
<td>Sample Size 1</td>
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<tr>
<td>Lindsay, Dockrell, Desforges, Law, and Peacey (2010)</td>
<td>Dept of Human Communicatio n Sciences, University of Sheffield</td>
<td>International Journal of Language and Communicatio n Disorders</td>
<td>To examine the efficiency and effectiveness of different arrangements for organising and providing services for children and young people with needs associated with primary speech, language and communication difficulties (SLCD). This included collaboration at strategic and practitioner level</td>
<td>6 case study LEAs. 12 senior managers, 23 headteachers, head of SLT service for each LEA, sometimes SENCO also present</td>
</tr>
<tr>
<td>McCartney, Ellis, Boyle, Turnbull and Kerr (2010)</td>
<td>University of Strathclyde</td>
<td>Child Language Teaching and Therapy</td>
<td>To elicit SLTs’ and classroom teachers’ perspectives on delivering language-learning activities, and in particular their views on factors</td>
<td>3 SLTs, 19 teachers</td>
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<tr>
<td>Authors/Institutions</td>
<td>Journal/Publication</td>
<td>Title</td>
<td>Methodology</td>
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<tr>
<td>Greenstock and Wright (2011)</td>
<td>Child Language Teaching and Therapy</td>
<td>What are the experiences of teachers, SLTs, teaching assistants and nursery nurses in using graphic symbols in schools?</td>
<td>Interviews following framework of questions.</td>
<td>15 Teachers, 16 SLTs</td>
</tr>
<tr>
<td>Baxendale, Lockton, Adams and Gaile (2013)</td>
<td>International Journal of Language and Communication Disorders</td>
<td>Views of the process and experience of participating in the intervention, including aspects of collaborative practice. Collaborative practice is explicitly stated in the abstract, but not in the study aims.</td>
<td>Qualitative data obtained from semi-structured interviews</td>
<td>8 parents, 8 teachers</td>
</tr>
<tr>
<td>McKean, Law, Laing, Cockerill, Allon-Smith, McCartney</td>
<td>International Journal of Language and Communication Disorders</td>
<td>Categorising and analysing the range of social capital relations in the study local authority site,</td>
<td>Semi-structured Interviews</td>
<td>8 headteachers, 8 SENCOs (some also teachers), 5 teachers, 2 HLTAs, 2 health visitors, 4 SLTs, 2</td>
</tr>
<tr>
<td>Authors</td>
<td>Institution</td>
<td>Research Focus</td>
<td>Data Collection</td>
<td>Analytical Method</td>
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<td>and Forbes, McCartney, McKean, Laing, Cockerill and Law (2017)</td>
<td>Effective Education, School of Education, Queen’s University, Belfast; JAS Coaching and Consulting; School of Psychological Sciences and Health, University of Strathclyde; School of Social Sciences, Centre for Child Wellbeing and Protection, University of Stirling.</td>
<td>How can the range of productive social capital relations recorded in the study (into co-professional working in primary schools supporting children with SLCN) be</td>
<td>Semi-structured interviews, further analysis of data from McKean et al 2017.</td>
<td>Thematic analysis Authors describe using discourse analysis</td>
</tr>
<tr>
<td>Forbes, McCartney, McKean, Laing, Cockerill and Law (2019)</td>
<td>Faculty of Social Sciences, University of Stirling; Education, Communication and Language Sciences, Newcastle</td>
<td>Discourse: Studies in the Cultural Politics of Education</td>
<td>How can the range of productive social capital relations recorded in the study (into co-professional working in primary schools supporting children with SLCN) be</td>
<td>Semi-structured interviews, further analysis of data from McKean et al 2017.</td>
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<td>University; Centre for Evidence and Social Innovation, Queen's University Belfast.</td>
<td>What factors, besides the child, access, and the communication aid, influence how professionals make decisions in communication aid recommendations? What insights may be gained on how productive co-professional social capital might be fostered?</td>
<td>Practitioners perceptions of their own and others’ roles</td>
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**Faculty of Health Psychology and Social Care, Manchester Metropolitan University; Linguistic, Speech and Communication Sciences, Trinity College Dublin; School of Rehabilitation Therapy, Queen's University, Kingston, Canada; Barnsley Assistive Communication**

Focus groups with open-ended questions

Ethnographic qualitative approach.

Inductive thematic analysis to identify salient and recurrent themes
Technology Service, Barnsley Hospital NHS Trust.

Key

LEA = Local Education Authority, the local councils responsible for education within their area.

EP = Educational Psychologist

SRBP = Specialist Resource Base Provision, a specialist provision which provides additional specialist support for children with identified SEN, within a mainstream school to enable the children to also access mainstream educational and social opportunities.

GP = General Practitioner

OT = Occupational Therapist

HLTA = Higher Level Teaching Assistant, a teaching assistant who has an additional qualification in supporting teaching and learning