

The differing tiers of school-based Occupational Therapy support: A Pilot study of schools in England

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Abstract

This research considered how school-based Occupational Therapists have delivered support for students with Special Educational Needs in two educational settings in England. The study focused on examining both working practices and any influencing factors. The study focused on Occupational Therapy working practices in two schools in the South West and the South East of England, respectively. The method utilized both semi-structured observations and interviews. The data were analyzed using a thematic approach and the findings identified that Occupational Therapists were delivering their support mostly in targeted and specialist tiers, but also that some universal activities were involved. However, the engagement with universal support was only observed in a limited manner in one school. Factors such as the type of service that each respective Local Authority offers to the school as well as, school management, relationships, and agency dominance all played a fundamental and influencing role. Further research in a wider range of localities in both the UK and internationally could be conducted to gain a more detailed insight into this type of additional occupational therapy support in school settings.

Keywords: school-based Occupational Therapists, educational setting, service delivery, Special Educational Needs, inclusive education, Waves Model, occupational therapy, special school, mainstream school

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Introduction

There are different debates around the educational provision for children and young people with Special Educational Needs (SEN) and disabilities (Anonymised 1, In Press). One of these debates is about the appropriate services that they require to effectively participate in education. In the context of England, Norwich (2010) have argued that one of the major problems is not having a system for developing a range of appropriate educational provision for those with SEN and disabilities. This problem emphasizes the need for greater flexibility and diversity in the provision, in which specialist support could play a key role in improving the quality of the educational provision and meet the needs of these students (Boyle, 2007; Jacobs, 2011; Jordan, 2008; Landor & Perepa, 2017; Symes & Humphrey, 2011). One of these services is Occupational Therapy (OT), which supports people to engage in and enjoy meaningful, purposeful life activities. In schools, this means facilitating the participation of children and young people in academic, social, extracurricular, independent living and vocational activities, contributing to the improvement of a child's academic and functional school performance (Hinder & Ashburner, 2017). However, the nature of OT practice in schools is complex, because of the considerable variability in service provision, which includes a diversity of service targets, places of delivery, types of services and how and when they are delivered (Bazyk & Cahill, 2015).

The OT service in England has been historically considered at a specialist level, where children with complex or high-level needs form the largest proportion of caseloads (Dunford & Richards, 2003; Kolehmainen, MacLennan, Francis, & Duncan, 2010). This can impact on the availability of this provision in schools since the service could remain at the highest level. This seems to be the case in England, where Hutton, Tuppeny & Hasselbusch (2016) have indicated that very few localities provide targeted or universal services, which can impact on the promotion

of the health, well-being and participation of children. This has also been pointed out by the Royal College of OT and the World Federation of Occupational Therapists (OTs) in terms of the required services to maximize children's potential (Hutton & Clarke, 2007; WFOT, 2016). In fact, some scholars have argued that direct or specialist services continue to be the primary OT service delivery model in schools internationally, despite literature dating back to the 1990s suggesting more beneficial and less restrictive models (Campbell, Missiuna, Rivard, & Pollock, 2012)

Literature Review

Additional Support in England

There are two principal documents which are relevant to consider in order to understand how the support for students with SEN and disabilities is defined in the English educational context: the Children and Families Act (DfE, 2014); and the SEN and Disabilities Code of Practice (DfE & DfH, 2015). Both documents state that when a student makes less progress than expected, despite evidence-based support and interventions, schools may involve specialists to advise and support them. This additional support can be provided to schools by statutory services in health, social care and education; or, by the voluntary, community, private or independent sectors, depending on the Local Authority's (LAs) judgment. Norwich and Eaton (2015) declared that these alternatives provide considerable freedom to LAs and partner bodies, which is supported by the DfE (2017), which stated that LAs are free to invest in any education-based provision that they think will meet their local needs. However, some scholars have argued that this freedom might result in a lack of guidelines for LAs and schools (Castro & Palikara, 2016). In this sense, Lamb (2013) suggested that the organization of the local offer of LAs was a major opportunity to design and include different services (DfE & DfH, 2015). Yet, some scholars argued that in order to include services within the same provision it would be required to share an understanding of roles,

research (Lindqvist et al., 2011; McKean et al., 2017). With schools being complex environments there is a recognition of the different layers within organizations which have to be considered (Anderson et al., 2014). In fact, a study of professional's views about the policy of SEN in England identified high levels of concern and disappointment in relation to the discrepancies and lack of consistency of different LAs with regards to the actions that involve education, health and social care (Palikara, Castro, Gaona, & Eirinaki, 2018).

Commissioning OT school services.

The World Federation of OT (WFOT, 2016) stated that OTs should be included in education in order to support and promote full participation and wellbeing of diverse students by supporting their strengths, and finding solutions to reduce or remove learning activity limitations and participation restrictions. Considering the SEN and disabilities Code of Practice of England (DfE & DfH, 2015), one way to integrate OT services in the educational setting is through joint commissioning arrangements. In the case of allied health services, which includes OTs, clinicians' commissioning arrangements and the National Health Service (NHS) can be commissioning partners to LAs. Additionally, Chu (2017) have indicated that that one way to market OT services to schools is by describing what and how OTs can effectively contribute to students with various levels of need. Similarly, the RCOT (2014) published a guide for commissioning, funding, and planning OT services, since many commissioners may not have experience of the range of services offered by OTs, because OTs are traditionally commissioned by health or social care. However, there is no national arrangement in funding school-based OT services, which results in a model of service delivery that is not consistent, even though a number of scholars have been working in a school-based model that provides a framework for education to commission this service (Chu, 2013; Hutton, Tuppeny & Hasselbusch, 2016).

The OT practice in schools has traditionally been deployed by three models: direct services, which involve primarily the child either in one-to-one or in small or large groups; indirect services, which are provided on behalf of the child including the work with teachers, parents or others; and, integrated services that provide support in the child's natural environment, prioritising nonintrusive methods and shared goals (Bazyk, Goodman & Michaud, 2009). These strategies are based on the best practices expected from OTs in educational settings. Yet, the evidence available, which comes mostly from the United States (US), shows a possible contradiction between what is expected and the actual practice. For example, Beck, Barnes, & Vogel (2006) and Spencer et al. (2006) found that OTs most frequently provide their services in pull-out treatment areas, deploying mainly direct services. A more recent study shows the same trend and argues that this situation still happens despite literature supporting indirect and integrated services (Bolton & Plattner, 2019). For the context of England, these studies are absent. However, an analysis of small-scale studies found that most of the OT activities delivered in schools were related to academic performance, particularly handwriting (Bonnard & Anaby, 2016). These results highlight a tendency that does not match with current expectations for OTs in schools. However, the study of Bolton & Plattner (2019) found that 32% of their teacher participants reported direct one-on-one services to be the most beneficial form of OT services. This could be one of the main factors influencing this type of service delivery in that teachers are able to see the educational benefits for students receiving OT support.

In response to the trends described above, some scholars have called for a shift from the traditional pull-out system towards more inclusive practices (Bissell & Cermak, 2015; Cahill & Lopez-Reyna, 2013; Garfinkel & Seruya, 2018). In this sense, Stephenson (2019) has claimed that being able to adapt and change OT services to take account of contemporary issues is crucial to the profession's survival and growth. However, empirical studies have reported that the

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involvement of OTs into teamwork, an aspect that is crucial when implementing more inclusive practices is one of the major issues in school-based practice (Benson, Szucs, & Mejasic, 2016; Cahill & Lopez-Reyna, 2013; Huang, Peyton, Hoffman, & Pascua, 2011; Leigers, Myers, & Schneck, 2016). Other obstacles have also been described, including professional socialization, person-level tensions, environment-level tensions (Wintle, Krupa, Cramm, & DeLuca, 2017), and lack of time (Bose & Hinojosa, 2008; Huang et al., 2011). Legislative, educational, professional, and personal factors have also been considered (Stephenson, 2019).

OT services and the Response to Intervention Model (RtI) or Wave Model

Tiered intervention models have been developed with the introduction of the RtI model in the USA, which is considered one of the approaches that offer guidance on how services can be organized along the tiered continuum-support (Ardoin, Witt, Connell, & Koenig, 2005; Bissell & Cermak, 2015; AOTA, 2012; WFOT, 2016). This approach is known in England as the Wave Model, defined as a multi-tier method to address the needs of students with SEN or disabilities within three waves of support: universal, target and specialist (Norwich, 2013; DfE & Skills, 2006). Studies that have explored this model within OT provision indicated significant and positive outcomes after providing, for example, a handwriting readiness program (Lust & Donica, 2011) and gross motor skills in a universal support (Bellows, Davies, Anderson, & Kennedy, 2013). These studies illustrate the immediate impact of a high-frequency, class-wide intervention. However, both interventions spanned 4 to 6 months, thus a shorter intervention period would have been more comparable with the RtI model (Blackwell & Dunn, 2016). In this sense, Ohl et al. (2013) implemented a 10-week intervention program addressing fine and visual motor skills in a kindergarten classroom, and found that the intervention group showed a significant increase in those skills, while the control group declined slightly. This research is an example of how OTs can work closer to RtI principles and have positive results. Yet, the study is targeted to a particular area of difficulty and to one age group, which can narrow the scope of their results. By contrast,

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Dreiling & Bundy (2003) found no statistically significant differences between groups of students with mild motor delays receiving specialist or universal inputs. Nevertheless, these authors described the advantage of an integrated or universal provision was that school staff and parents were empowered to support children in their daily routine, which is one of the goals and core elements of the RtI model.

In the context of England, Hutton, Tuppeny and Hasselbusch (2016) identified that there has been less attention to the provision of universal or targeted waves, which means many children with functional difficulties are unable to benefit from publicly funded OT. This was considered previously in a Memorandum submitted by the National Association of Paediatric OTs of the UK, where more involvement in training and supporting school staff was suggested since this existed only in a patchy and inconsistent manner (NAPOT, 2005). In contrast to this, some OTs in England have begun to re-organize their services into a systematic school-based model named the *Three-tiered school-based OT model of Service Delivery*, which supports a whole-school strength-based approach (Hutton, Tuppeny and Hasselbusch, 2016; Chu, 2015). Evidence of this re-organization stated that OT services are more accessible when OTs are based in schools and when they adopted a collaborative approach with teachers and SENCOs (Hutton & Clarke, 2007; Hutton & Soan, 2015), and which has been successful in both special and mainstream school (Chu, 2014). However, some challenges to apply this approach were identified, including an unclear understanding of the OT's role and the use of medical language even though in education settings (Hutton, 2008). This was in addition to a lack of recognition of OT services, the expectation on direct hand-on therapy input, and the resistance to change from some OTs (Chu, 2017). These studies give relevant information about this re-organization and the importance of the relationship between OTs and school staff. It should be noted, however, that all of them were developed in an inner-London borough, which is a limitation of much of the research available in English settings.

In light of this review of the literature it was deemed necessary to further identify the waves of support from two schools in different areas of England. These would incorporate the perspectives of OTs and SENCOs which could be relevant not only for the field of OT but also that of education. Thus, the current study will answer the following research questions:

1. In what way are the OTs of the two schools delivering their services?
2. Which factors influence this type of provision in schools?

Materials and methods

A qualitative approach was used, which allowed for the exploration of the meaning individuals or groups ascribe to a social or human problem, and which offered a holistic way to understand the multifactorial nature of different situations (Gray, 2012; Robson, 2016). This was relevant because the support delivered by OTs in educational settings can vary from that of a medical context. Additionally, a constructivism epistemology allowed the researcher to rely as much as possible on the participant's views and context (Creswell, 2014). In terms of a research design, an exploratory approach was chosen, seeking to explain a phenomenon that occurs in a setting (Boudah, 2010). Also, a non-probability sample was employed since the main goal was to find individuals who can provide rich and varied insights. Hence, a purposive sampling strategy was used. The relatively small sample was in response to the expected difficulty in obtaining access to schools, where the primary inclusion criteria was schools that currently have OT services. Thus, two schools were included, one was a special secondary school from the South West of England that enrolls students with complex needs and abilities, and the other was a mainstream primary school from the South East of England that provides education for children between 3 and 11 years of age. Ethical issues were considered at all stages of this research, which was based on the British Ethical Guidelines for Educational Research (BERA, 2018) and certified by the University Ethics Committee.

Semi-structured observations: This method was used to obtain an awareness of the activities and contexts where the three OTs of this study delivered their support. This was used at the preliminary stage of the fieldwork to inform the design and coverage of other phases, but also to provide substantive evidence for later analysis (McNaughton, Kotecha, & Mills, 2014). It was carried out with a non-participant researcher’s role, which permitted recorded field notes that were vital for the inclusion of relevant information (Berg & Lune, 2012). The construction of the observation schedule, which is further described in Table 1, was designed to gather data on physical, human, interactional and program settings (Cohen, Manion, & Morrison, 2018). The demands observed were based on five of the items that OTs consider to be select therapeutic activities defined in OT Practice (AOTA, 2014).

Setting	Definition	Type of demand	Definition	Item	Subitems
(Cohen, Manion & Morrison, 2018)		(AOTA, 2014)			
Physical setting	Physical environment and its organization	Space demands	Physical environmental requirements of the activity	Place of work	Where: Classroom/ therapeutic room/ Playground/ Lunchroom/ Staffroom/ other Environmental characteristics: size, lighting, temperature, noise, ventilation)
Human setting	The organization of people and their characteristics	Social demands	Elements of the social environment and virtual and cultural contexts that may be required by the activity	Participants	Whom: students/ teachers/ teaching assistants/ other school staff/ parents/ other professionals
Interactional setting	Interactions that are taking in place				Number: One-to-one/ group (2 to 5)/ whole class/other Expectations of other participants in the activity (e.g., sharing supplies, teamwork)
Program setting	Resources and their organization	Actions and performance skills	Actions required by the client that are an inherent part of the activity	Task	OT actions: direct intervention/ documentation/ meeting/ training/ other Students actions: Fine motor skills/ gross motor skills/ handwriting/ life skills/other
				Materials	Tools/Supplies: School/ life skills/ sensory/ sport/ others.

			Objects used and their properties		Equipment (e.g., workbench, stove, basketball hoop)
		<i>Meaning of activity</i>	<i>Relevance and importance to client</i>	<i>Alignment with the client's goals, values, beliefs, and needs and perceived utility</i>	<i>Improve the use of school tools, movement and balancing, academic performance, life skills, others.</i>

Table 1: Construction of the observation schedule

Semi-structured interviews: the interviews were conducted with the two SENCOs involved and with the three OTs, of which two were interviewed together since they worked collaboratively in the same school. A semi-structured approach was selected because this allows the combination of a list of issues to be covered with the freedom to follow up points as necessary, which is a highly appropriate approach in small-scale projects such as this one (Thomas, 2017). The questions were open and based on the findings from previous observations and on a questionnaire used in a study of school-based practice patterns of OTs in Colorado, USA (Spencer, Turkett, Vaughan, & Koenig, 2006). Additionally, since the interviewees had different roles within the schools, different questions were asked, yet both covered the same topics, including: background information, the experience of working together, the process of commissioning OT services, and students' characteristics and educational goals.

To ensure validity and reliability, both data collection methods were analyzed and cross-referenced by the authors of this paper, to ensure that both measured their intended objectives. Methodological triangulation was used, where the information gathered from observations and interviews allowed an understanding of the waves of OT support within both schools (Cohen, Manion, & Morrison, 2018).

Data analysis methods:

A thematic coding approach was used since the data from both methods was similar in type and because observational data requires management and analysis in much the same way as

interview data (Thomas, 2017). The information collected was deconstructed in a conceptually clustered matrix, which allowed the identification of patterns, trends, similarities, and differences (Robson, 2016; Maxwell & Miller, 2008). This was then deconstructed in a network map to respond to each research question (Thomas, 2017).

Results

Figure 1 provides an overview of the trends identified to answer the inquiries of where, with whom, how and for what the OTs were delivering their support in such a way. In this sense, the physical setting used by OTs was mostly in pull-out treatment rooms. However, a one-to-one support and a monitoring session were witnessed in the common classroom.

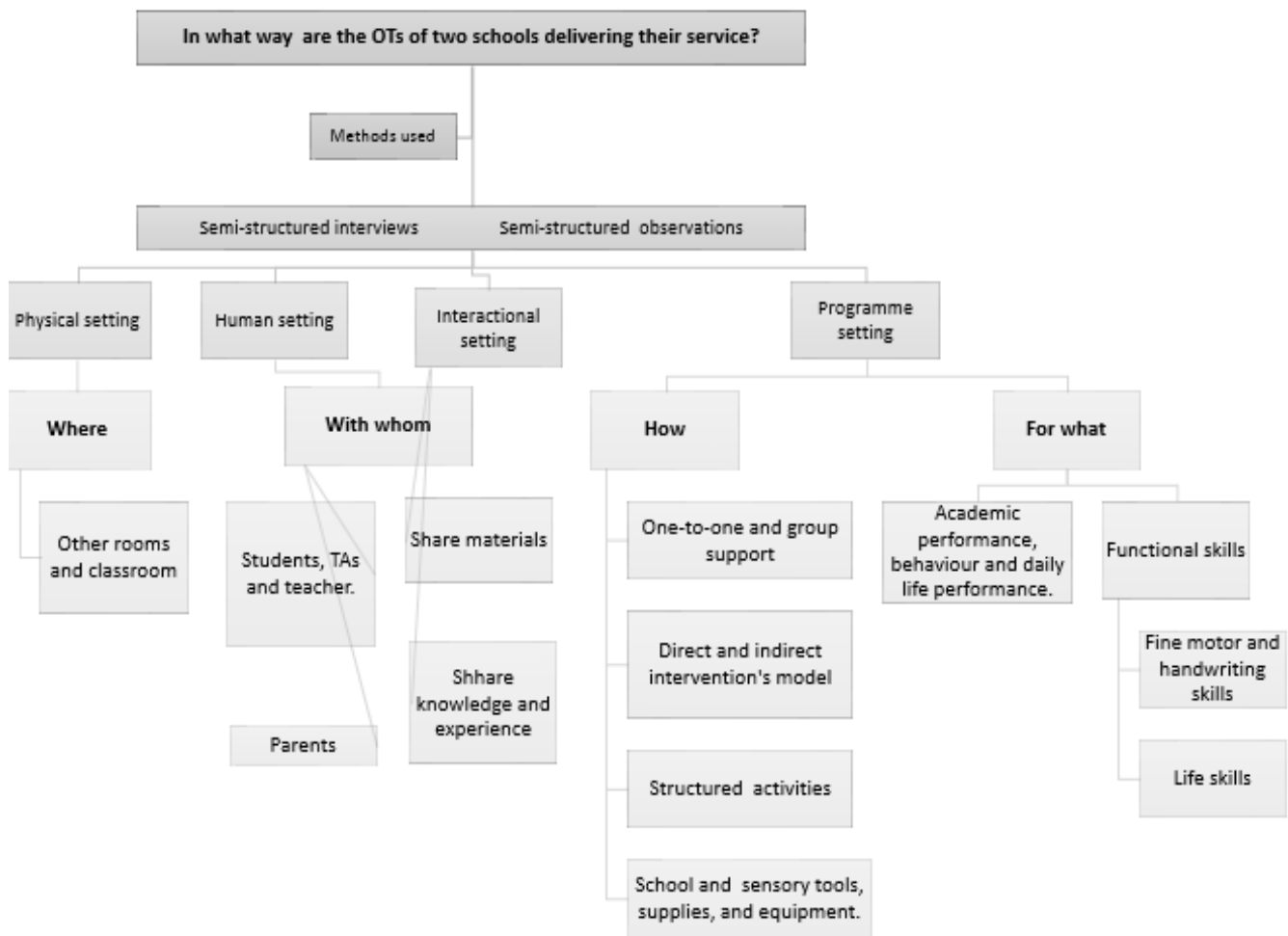


Figure 1: Network map of findings of the first research question

The human and interactional setting was characterized by students as common participants, who were from different genders, ages, and diagnoses, and who have to interact by sharing materials. The participation of TAs was also observed, but with different levels of engagement in the two settings under investigation. Here, OTs explain:

“We are happy to work with the TAs when they come, but we have a difference of engagement”

“TAs are the ones that work with the child the whole day, so they are the ones responsible for carrying out the recommendations”

This participation was then raised in discussions with SENCOs, where different reasons emerged in both schools:

“It does not work like that because we only have a very limited number of children who have one-to-one TAs”

“Our TAs always watch [OT’s name]... so then they learn how to do it... and then they must practice OT’s activities with their child”

The participation of teachers was observed in one school, where the OT spent approximately 20 minutes monitoring recommendations in conjunction with the teacher. The participation of parents was described in interviews, where OTs explained the drop-in sessions and also the workshops they provided in an external clinic. Also, emails and phone calls were methods used to communicate with them.

For the program setting, one-to-one and small group support were the approaches mostly observed. This was further described by the OTs:

“... working in small groups of students with the aim to help them with their fine motors skills is how we can make the most difference to these children”

“As a service we think what we can offer to support the needs of all the children, to build the capacity of the teachers and educate the staff, doing interventions in the classroom... working alongside teachers and TAs”

In relation to intervention models, a direct model was mostly observed, where OTs worked hands-on with students. However, the indirect approach was also developed by working with TAs, but this was not observed in the two schools. Integrated services were identified by working in students’ natural environment. Yet, the prioritization of nonintrusive methods was unclear.

The needs supported were mainly to improve academic performance, particularly handwriting. The SENCOs explained the purposes of this:

“We try to encourage them [students] to do some writing because we know that when they leave here to post 16 they can have to fill a form or something like that”

“I said to [OT’s name]... handwriting is very delayed, not developed, we have put these interventions in place and nothing is going forward, what are your suggestions?”

However, other skills were included, such as life performance and fine motor skills. The OTs from both schools emphasize that these needs were addressed having in mind the school participation and functional skills:

“I would say is related to functional skills, so the underlying difficulties might be the children having difficulties to do that skill because of motor coordination difficulties, but actually, the goal is specific occupations or tasks that the child has difficulties on doing, for example, handwriting”

These results suggest that these OTs work mostly in pull-out treatment areas, with students as main participants, in one-to-one support or small groups, and delivering mostly direct services for academic performance, particularly handwriting.

The findings for the second research question are displayed in Figure 2. With regards to background information, SENCOs and OTs have diverse degrees, yet the OT training provided more relevant information. Here, the OTs reported:

“My pediatrics module I think it was one day lecture, so a lot was about related the previous adult training that I have done and trying to make sense of it and applied to children”

“In my four-year elective I chose pediatrics for one of my electives, and we went into schools. It was very practical based looking at working within the school; however, it was not as holistic as we work now”

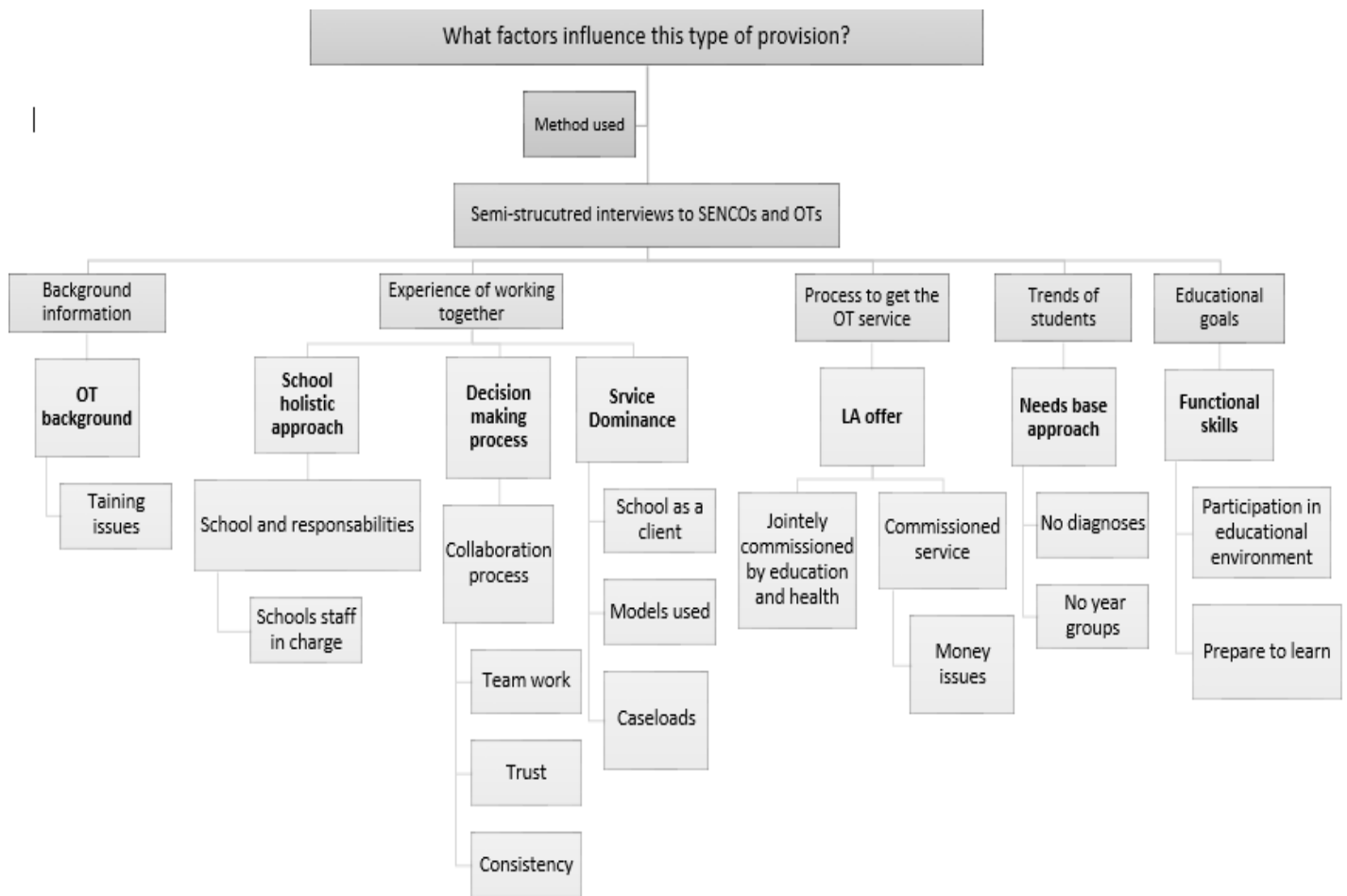


Figure 2: Network map of findings of the second research question

The experience of SENCOs and OTs working together was characterized by three main themes. Regarding school management, issues about school responsibilities of who is in charge of the OT service were described differently:

“It used to be the SENCO [person in charge], it is now not the SENCO only because they [school] thought she was too busy and is manage really by [name], who is the deputy’s head but overseen by [name], who is a pastoral care member. Is a bit of a mess, if I am honest”

“We discuss caseloads and priorities with the SENCOs, in terms of what are the needs for that school, and this relationship has to be there for the work to be able to be carried out”

In relation to the decision-making process, a collaborative process in which teamwork, trust, and consistency issues were identified as main factors. Yet, opinions differed as to whether these aspects were involved or not:

“...I will say that is predominant the school [who decide], but very much in collaboration with our OT... So we kind work as a team... and the way that we collaborate means that the goals can really focus”

However, in one school the term *collaboration* was not mentioned, and the concept *team* was used only to describe groups such as inclusion or senior management team. In contrast, for trust and the importance of having a constant OT was mentioned by both SENCOs:

“We are familiar with [OT’s name], she knows us, she is familiar with the system at [School’s name], and she knows what our needs are and where we are more comfortable with her”

“I think the great thing is because [OT’s name] is consistent, she knows our school and she knows how things are”

The agency dominance theme raised similarly in both schools, where OT’s agencies decide whom the client is, the approaches used and caseloads. Additionally, these agencies form part of the LAs’ offer, which according to these findings have different methods to work. For one school, the offer was free since the OT service was a joint commission of health and education. For the other school, the service was paid. This difference influenced the number of times that money issues were mentioned in interviews, which was the case for the school that pay for the service:

“I think all has to do with money. And time, I actually do. As I said, it would be lovely if we have an OT attached to the school... but there is no time no money”

“A few months back, we have a gap where we were out of the school for a while because the school was deciding whether or not they can still afford with their budget to buying OT”

Another perspective was that OTs did not work with students based on their diagnoses, but instead, they worked with students based on individual need as opposed to their diagnoses.

Regarding the relation of OTs with educational goals, OTs clarified that they do not address

academic goals, instead, they addressed functional skills to allow for better participation in academic tasks, demands, and environment, explaining:

“So is not explicit in the plans or anything that we are actually going to work in academic goals but is quite linked”

“I think that my targets if they were in an Educational Health Care Plan, are about participation in the education environment”

Discussion

The findings of this study were analyzed based on a model that was developed as a representation of the results of both research questions holistically (Figure 3). In this representation, the boundaries of each circle are discontinuous to represent permeability, and the arrows represent the possible influences to and between factors. At the center, the main idea behind this study- how the provision of OT was delivered. Around this, the main findings of the first research question, and then the main factors that answer the second research question. These factors are strongly interconnected since each of them will impact how the other is developed. These interconnections and each factor will finally impact in how the OT service is delivered.

[INSERT FIGURE 3 AROUND HERE]

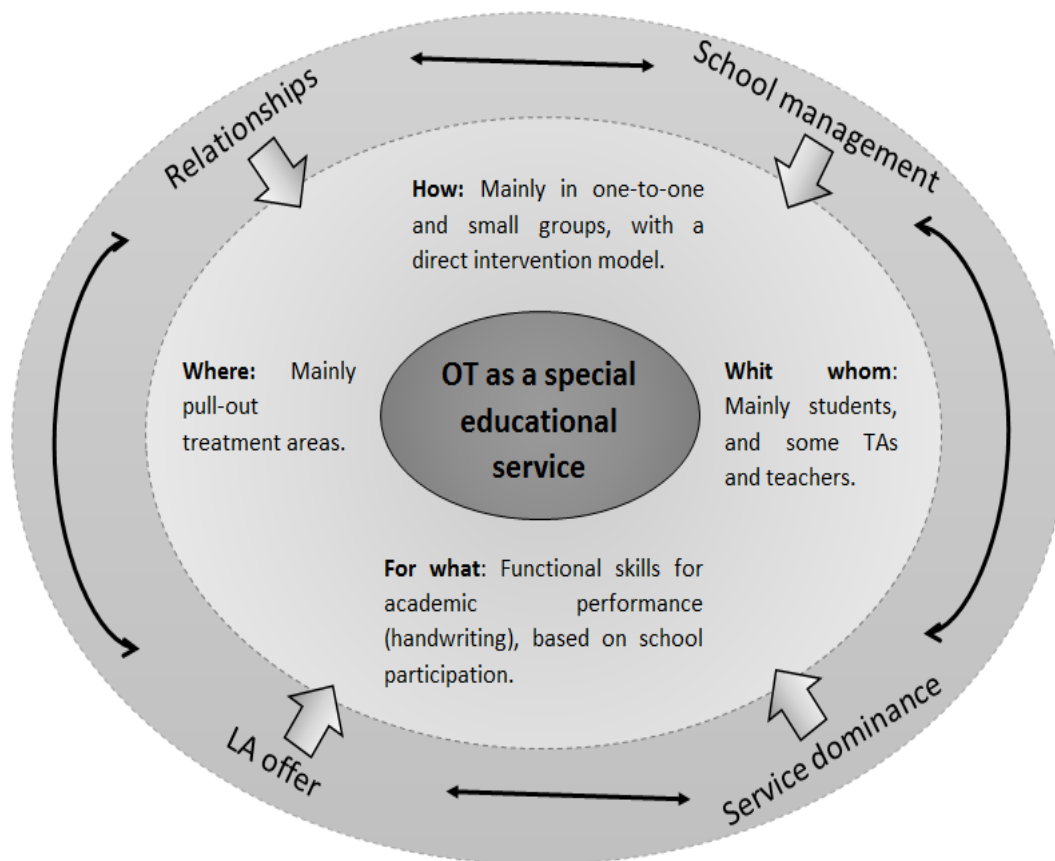


Figure 3: Model of OT as a special educational service

In consideration of Figure 3, it can be concluded that the main way of working observed during this research has characteristics that are in line with what Beck et al. (2006), Spencer et al. (2006), Leigers, Myers, & Schneck (2016), and Bolton & Plattner (2019) have described in terms of pull-out treatment areas, and direct services in one-to-one or small groups support. This is also consistent with Kolehmainen, MacLennan, Francis and Duncan (2010), who stated that in England the OT service had been historically considered at a specialist level, and with Hutton, Tuppeny & Hasselbusch (2016) about the very few localities providing targeted or universal services. These similarities contrast with the bio-psycho-social model of support expected in education (Bazyk &

Cahill, 2015; Missiuna et al., 2015), and with the call towards more inclusive practices (Bissell & Cermak, 2015; Cahill & Lopez-Reyna, 2013; Garfinkel & Seruya, 2018).

The intervention model commonly observed was a direct approach, which is also in line with the studies mentioned previously. However, differences on the use of the indirect approach were founded. These results confirm that the ways of how OTs work in schools may vary in different areas of England, which was previously described by Dunford, Owen and Kelly (2010) and NAPOT (2005). Therefore, the findings of this study, even though they are limited, can be an example of the permanence of this situation, since this still happens despite the fact that current official documents of England state the potential of change this (DfE & DfH, 2015). Indeed, the closeness with current expectations with regards to the support of OTs in schools, particularly with the idea of expanding the scope and support the school staff, is not developed in the same way. This emphasizes the need for more research in different localities of England, since the evidence gathered and the literature reviewed in this study shows that up-to-date research about ways of work appear centered in main areas, particularly in the South-East region (Chu, 2014; Hutton, 2008; Hutton & Clarke, 2007; Hutton & Soan, 2015).

The people with whom the OTs were working in these schools could also show a narrow scope of this support. This is one of the greatest differences identified in both practices, since in the special school, the students were the only participants, and in the mainstream school, TAs were also included. This finding could builds on the idea of Webster et al., (2010) about the ambiguity of the TA's role in relation with the inclusion of students with SEN or disabilities, and with Maher & Vickerman (2018), who described that the role of SENCOs and TAs had been found to be extremely diverse in England. This finding is relevant since the availability of TAs working

alongside OTs might have a significant impact in the contribution of OT to the educational environment and the effectiveness of their interventions, which needs to be further investigated.

From another perspective, a functional skill practice centered in a needs-based approach was found in both schools. This is in line with the main idea of including OTs as a school service (Coster et al., 2013; Eriksson et al., 2007). However, in this study, this support involved only motor or physical issues. Also, even though there was no identification of a particular diagnosis, handwriting concerns were the most common issue supported. This could point out the notion of OTs as ‘experts’ among the school staff of these schools, which could limit the functions of OTs within educational settings. This reinforces the idea of a gap between what is recommended as best practices and the actual practice, in which OTs tend to limit their support to physical components, rather than including, for example, psychological functions or social participation (Bonnard & Anaby, 2016; Egilson & Hemmingsson, 2009). In this sense, the OTs of this study explained that the Educational Health Care Plans (EHCPs) of their students target mostly motor issues. This highlights the lack of a shared understanding of roles, aims and goals across stakeholders and disciplines, described by McKean et al. (2017) and Lindqvist et al. (2011).

The factors influencing the OT support identified in this study have some similarities with previous research, yet important new findings emerge. The literature about this is mostly linked to OTs and teachers. However, this study considered it and used it to discuss the relationship between OTs and SENCOs. For example, studies have found that concepts of respect, genuine interest, collaboration and teamwork are crucial in the relationship between teacher and OTs (Blackwell & Dunn, 2016; Benson et al., 2016; Huang, Peyton, Hoffman & Pascua, 2011; Leigers et al., 2016). This study found that they are also vital to the relationship between SENCOs and OTs, highlighting

the need of having a consistent OT and the benefits of that. However, differences in the meaning

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of teamwork and collaboration were found, which were more consistent in the school that employed these concepts. Cahill & Lopez-Reyna (2013) described that within problem-solving teams, OTs frequently played an expert or consultant role, rather than a true collaborator, which can be the case of the school where teamwork and collaboration were not truly demonstrated within the period of this research. This shows that a collaborative consultation model is not consistently used in practice.

Another important finding was the influence that the school management had on the OT support where different responsibilities, particularly in terms of staff organization, was a major issue. This resembles the idea of Wintle, Krupa, Cramm & DeLuca (2017) about the obstacles that OTs in schools might face, particularly in terms of environment-level tensions. This situation also emphasize the claim made by the DfE (2015) about the responsibility of schools to work cooperatively with other agencies to provide effective support. In addition, it shows the relevance of the role of SENCOs in multi-agency collaboration, remarking the lack of guideline available to place a type of collaboration that is organized and effective (Pearson, Mitchell & Rapti, 2015; Barnes, 2008). This problem could be more pronounced when health services are included in the educational setting, and even though some guidance is developed to commissioned OT services (RCOT, 2014; Chu, 2013), the way of work between them is not described, less investigated.

From another stance, the apparent dominance of OT agencies regarding what OTs do in schools and with whom they work was another interesting finding of this study. This result highlights how health services engage with the educational setting, where a possible power to decide how they are going to work could be placed, which was described in Atkinson et al. (2002).

Thus, the OTs of this research were mainly guided by their agency's ideas, who implemented particular strategies. According to the suggestions of institutions such as the RCOT (2016) and the Accepted for publication in: *Journal of Occupational Therapy, Schools, & Early Intervention* permanent link: <https://doi.org/10.1080/19411243.2020.1732264>

WFOT (2016), these strategies have to be based in a continuum of support delivered in three waves. However, this study found different levels of engagement with that.

How the LAs' offer influences the OT provision in the schools of their area was the last finding of this study. As mentioned in the previous chapter, both schools commissioned the service in different ways. This finding could illustrate how the lack of guidance can impact the practice of the same service in different localities, which was described by Palikara et al. (2018) and Castro & Palikara (2016). Nevertheless, the schools involved in this study are placed in areas that have different characteristics that could impact on how they spent their money. For example, the LA where the OT service was paid emphasizes that this locality has a higher than average number of EHCPs, but there was no additional funding from central government to meet this demand, consequently the costs have to be managed within existing resources (██████ County Council, 2019). In contrast, the other LA provides OT to schools as a free and impartial service, and OTs comes from the Royal Free Hospital, being part of the integrated service for disabled children (Royal Free, 2018). Therefore, there is a different response to the current economic and funding situation of each region, which could affect how the OT service is included in schools.

The findings of this study allow the researcher to conclude that during the period of this project, the waves of support delivered by both OTs were mostly waves two and three, this means target and specialist levels. This makes sense with Bolton & Plattner (2019) regarding teachers reporting direct one-on-one services as the most beneficial form of OT services. However, some characteristics of wave one, the universal level, were also described. This universal wave could engage with current trends of the education system towards outcomes of inclusion and participation, emphasizing the benefits of a collaborative approach. Nevertheless, this engagement was not observed in the same level on the two schools. This might be related to the characteristics

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of the students involved in OT support or to the fact that the OT service is considered a special educational service. This is coherent enough to implement it as additional support for those with SEN or disabilities. Another possible explanation of the lack of engagement with universal services could be because the Wave model in England is not part of the latest educational reforms (Greenwood & Kelly, 2017; Norwich, 2013). However, considering it as a support organizational system could sustain the implementation of approaches such as the three-tiered school-based OT model, according to some evidence (Chu, 2015, 2017; Hutton, 2008; Hutton & Clarke, 2007; Hutton & Soan, 2015; Hutton, Tuppeny & Hasselbusch, 2016). This model engages with the principles of inclusive education and early intervention, where a partnership with schools and a collaborative approach is crucial for sustainability and resourcing, allowing OTs to develop an integrative plan and to quantify the levels of inputs required, according to Chu (2013). Yet, studies from different parts of England must be developed to support this idea.

Limitations of the study

The findings of this study contribute to the existing knowledge of OT in school settings by providing new insights into therapeutic and management factors around this provision, and could be the first study so far documenting the way of work of the OT provision in two schools from different localities of England that consider the views of OTs and SENCOs. However, the small sample size did not allow the researcher to corroborate these findings in other schools of the localities involved, neither to expand this to other localities. Therefore, caution must be exercised in generalizing the findings of this study.

Conclusion and recommendations

Taken together, these findings suggest a role for the three-tiered school-based OT model of service delivery in promoting a provision of education that fits with what students with SEN or disabilities might require. This could also be in concordance with an inclusive education approach, when this is understood under the idea of the quality of a child's experience, which might expand the scope of OTs and increase their contributions. However, the evidence from this study suggests particular challenges to engage with this continuum-support model. Some of these challenges are in relation to the knowledge that LAs and schools have of the provision that OTs can offer in their setting, in which OT institutions should play a key role in promoting this in a professional and locally way. This promotion might allow that current educational policies include OT support as a core provision for diverse students, beyond the label of SEN or disabilities. Additionally, OT's agencies should engage with current guidance of provision, and OT services should analyze their school provision.

Improving the current support provided by OTs in school could contribute, at some extent, to solve the problem of not having a system for developing a range of appropriate provision that matches with a clear inclusive framework in England in which OT could play a key role. This could be a fruitful area for further work, where other professionals that historically have not been involved in the educational field could also contribute to include a diversity of students. Here, their work with the school staff might play a fundamental role in progressing to a better school for all. This further work might also consider the support required by teachers and TAs to deploy their skills in the best way that they can, supporting them to deal with current educational pressures and demands.

To conclude, it is relevant to mention that the relationship between OTs and SENCOs, and the study of the OT provision in different schools in England are relevant areas to continue investigating. A national study of OT support in schools, such as those from the USA, could be a way to continue and improve the research regarding this topic, and which might contribute to make government and political decisions according to empirical evidence.

References

- Anonymised 1, (In Press). Inclusive Education at a crossroads: Where to from here? *The Oxford Research Encyclopedia of Education*. [Invited Article]
- Anderson, J., Boyle, C., & Deppeler, J. (2014). The ecology of inclusive education: Reconceptualising Bronfenbrenner, In Z. Zhang, P. W. K. Chan, & C. Boyle (Eds.) *Equality in education: Fairness and inclusion* (pp. 23-34). Rotterdam: Sense Publishers.
- AOTA. (2012). *Practice Advisory on Occupational Therapy in Response to Intervention*. Retrieved July 23, 2018, from <https://www.aota.org/~media/Corporate/Files/Practice/Children/Browse/School/RtI/AOTA%20RtI%20Practice%20Adv%20final%20%20101612.pdf>
- AOTA. (2014). Occupational Therapy Practice Framework: Domain and Process . *The American Journal of Occupational Therapy*, 68(1), 1-48.
- Ardoin, S., Witt, J., Connell, J., & Koenig, J. (2005). Application of a three-tiered response to intervention model for instructional planning, decision making, and the identification of children in need of services. *Journal of Psychoeducational Assessment*, 23(4), 362-380.
- Atkinson, M., Wilkin, A., Stott, A., Doherty, P., & Kinder, K. (2002). *Multi-agency working: a detailed study*. . London,UK: National Foundation for Educational Research.
- Barnes, P. (2008). Multi-agency working: what are the perspectives of SENCOs and parents regarding its development and implementation? *British Journal of Special Education*, 35(4), 230-240.
- Bazyk, S., & Cahill, S. (2015). School-Based Occupational Therapy. In J. Case-Smith, & J. O'Brien (Eds.), *Occupational Therapy for children* (pp. 664-703). US: Elsevier Mpsby.
- Bazyk, S., Goodman, G., & Michaud, P. (2009). Integration of OT services in a kindergarten curriculum: a look at the outcomes. *American Journal of Occupational Therapy*, 63, 160-171.
- Beck, A., Barnes , K., Vogel, K., & Grice, K. (2006). The dilemma of psychosocial occupational therapy in public schools: The therapists' perceptions. *Occupational Therapy in Mental Health*, 22(1), 1-17.
- Bellows, L., Davies, P., Anderson, J., & Kennedy, C. (2013). Effectiveness of a physical activity intervention for Head Start pre-schoolers: a randomized intervention study. *American Journal of Occupational Therapy*, 67(1), 28-36.
- Benson, J., Szucs, K., & Mejasic, J. (2016). Teachers' perceptions of the role of occupational therapist in schools. *Journal of Occupational Therapy, Schools, and Early Intervention*, 9(3), 290–301. <https://doi.org/10.1080/19411243.2016.1183158>
- BERA. (2018). Ethical Guidelines for Educational Research. *British Educational*.
- Berg, B., & Lune, H. (2012). *Qualitative Research for the Social Sciences* (8th ed.). Boston, US.: Pearson International Edition.
- Bissell, J., & Cermak, S. (2015). Frameworks, Models and Trends in School-Based Occupational Therapy in the United States. *The Israeli Journal of Occupational Therapy*, 24(2-3), 49-69.
- Blackwell, A., & Dunn, W. (2016). Active ingredients for an embedded intervention within the early childhood classroom. *Journal of Occupational Therapy, Schools, & Early Intervention*, 9(2), 125-141.
- Bolton, T., & Plattner, L. (2019). Occupational Therapy Role in School-based Practice:

- Perspectives from Teachers and OTs. *Journal of Occupational Therapy, Schools, & Early Intervention*, 0(0), 1–11.
- Bonnard, M., & Anaby, D. (2016). Enabling participation of students through school-based occupational therapy services: Towards a broader scope of practice. *British Journal of Occupational Therapy*, 79(3), 188-192.
- Bose, P., & Hinojosa, J. (2008). Reported Experiences from Occupational Therapists Interacting with Teachers in Inclusive Early Childhood Classrooms. *American Journal of Occupational Therapy*, 62(3), 289–297.
- Boudah, D. (2010). *Conducting educational research: Guide to completing a major project*. London, UK.: Sage.
- Boyle, C. M. (2007). An analysis of the efficacy of a motor skills training programme for young people with moderate learning difficulties. *International Journal of Special Education*, 22(1), 11-24.
- Cahill, S., & Lopez-Reyna, N. (2013). Expanding school-based problem-solving teams to include occupational therapists. *Journal of Occupational Therapy, Schools, & Early Intervention*, 6(4), 314-325.
- Campbell, W., Missiuna, C., Rivard, L., & Pollock, N. (2012). Support for everyone: Experiences of occupational therapists delivering a new model of school-based service. *Canadian Journal of Occupational Therapy*, 79(1), 51–59.
<https://doi.org/10.2182/cjot.2012.79.1.7>
- Castro, S., & Palikara, O. (2016). Mind the gap: the new special educational needs and disability legislation in England. *Frontiers in Education*, 1, 4.
- Chu, S. (2013). A model for commissioning school-based occupational therapy. *Occupational Therapy News*, 21(2), 38-39.
- Chu, S. (2014). A fully integrated Paediatric OT in Ealing. *Occupational Therapy News*, 3, 26-27.
- Chu, S. (2015). Developing costing and marketing school-based occupational therapy service to health and education commissioners. *Kid Power Therapy and Training*, (p. 2nd ed.). Derby, UK.
- Chu, S. (2017). Supporting children with special educational needs: An introduction to a 3-tiered school-based occupational therapy model of service delivery in the United Kingdom. *World Federation of Occupational Therapists Bulletin*, 73(2), 107-116.
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). London, UK.: Routledge.
- Coster, W., Law, M., Bedell, G., Liljenquist, K., Kao, Y., Khetani, M., & Teplicky, R. (2013). School participation, supports and barriers of students with and without disabilities. *Schil: care, health and development*, 39(4), 535-543.
- Creswell, J. (2014). *Research Design: international student edition*. (U. o. Nebraska, Ed.) Nebraska, US.: Sage Publications, INC.
- ██████████ County Council. (2019). *Choosing a school: ██████████ Local Offer*. Retrieved October 8, 2019, from <https://www.██████████.gov.uk/educationandfamilies/special-educational-needs-and-disability-send-local-offer/education/choosing-a-school>
- DfE. (2014). *Children and Families Act 2014: Chapter 6. Explanatory Notes*. UK.: Office, Stationery.
- DfE. (2015). *Supporting pupils at school with medical conditions*. UK: Department of Education.

- DfE. (2017). *Special provision fund allocations: Explanatory note*. UK: Department of Education.
- DfE & DfH. (2015). *Special Educational Needs and Disability Code of Practice: 0 to 25 years*. UK: Department of Education and Department of Health.
- DfE & Skills . (2006). *Government Response to Education and Skills Committee Report on Special Educational Needs*. UK: Department of Education and Skills.
- Dreiling, D., & Bundy, A. (2003). A comparison of consultative model and direct–indirect intervention with pre-schoolers. *American Journal of Occupational Therapy* , 57(5), 566-569.
- Dunford, C., & Richards, S. (2003). *Doubly disadvantaged: Report of a survey on waiting lists and waiting times for occupational therapy services for children with developmental coordination disorder*. London, UK: College of Occupational Therapists.
- Dunford, C., Owen, C., & Kelly, J. (2010). Occupational Therapy with Children and Young People: A Perspective from the United Kingdom. *Journal of Occupational Therapy, Schools, & Early Intervention*, 3(2), 187-196.
- Egilson, S., & Hemmingsson, H. (2009). School participation of pupils with physical and psychosocial limitations: a comparison. *British Journal of Occupational Therapy*, 72(4), 144-152.
- Eriksson, L., Welander, J., & Granlund, M. (2007). Participation in everyday school activities for children with and without disabilities. *Journal of Development and Physical Disabilities*, 19(5), 485-502.
- Garfinkel, M., & Seruya, F. (2018). Therapists’ perceptions of the 3:1 Service Delivery Model: A workload approach to school-based practice. *Journal of Occupational Therapy, Schools, and Early Intervention*, 11(3), 273–290. <https://doi.org/10.1080/19411243.2018.1455551>
- Gray, D. (2012). *Doing research in the real world* (3rd ed.). London, Uk.: Sage Publications Limited.
- Greenwood, J., & Kelly, C. (2017). Implementing cycles of Assess, Plan, Do, Review: a literature review of practitioner perspectives. *British Journal of Special Education*, 44(4), 394-410.
- Hinder, E., & Ashburner, J. (2017). Occupation-centred intervention in the School Setting. In S. Rodger, & A. Kennedy-Behr (Eds.), *Occupation-centred Practice with Children* (2nd ed.). Oxford, UK: John Wiley & Sons Ltd.
- Huang, Y., Peyton, C., Hoffman, M., & Pascua, M. (2011). Teacher perspectives on collaboration with occupational therapists in inclusive classrooms: A pilot study. *Journal of Occupational Therapy, Schools, and Early Intervention*, 4(1), 71–89. <https://doi.org/10.1080/19411243.2011.581018>
- Hutton, E. (2008). Back to school- piloting an occupational therapy service in mainstream schools in the UK. *Reflective Practice*, 9(4), 461-472.
- Hutton, E., & Clarke, W. (2007). *Occupational Therapy into Schools (OTIS) key findings report*. Canterbury, UK.: Easter & Coastal Kent PCT.
- Hutton, E., & Soan, S. (2015). Universal Strategies to support motor and functional skills in a sample of UK schools. *Developmental Medicine and Child Neurology* , 57.
- Hutton, E., Tuppeny, S., & Hasselbusch, A. (2016). Making a case for universal and targeted children’s occupational therapy in the United Kingdom. *British Journal of Occupational Therapy*, 79(7), 450-453.

- Jacobs, B. (2011). *How can autistic intelligence be recognised and accommodated within an inclusive education framework?* (U. o. (Doctoral dissertation, Producer) Retrieved August 25, 2018, from <https://ira.le.ac.uk/bitstream/2381/9409/1/2011jacobsbhphd.pdf>
- Jordan, R. (2008). The Gulliford lecture: Autistic spectrum disorders: A challenge and a model for inclusion in education. *British Journal of Special Education*, 35(1), 11-15.
- Kolehmainen, N., MacLennan, G., Francis, J., & Duncan, E. (2010). Clinicians' caseload management behaviours as explanatory factors in patients' length of time on caseloads: a predictive multilevel study in paediatric community occupational therapy. *BMC Health Services Research*, 10(1), 249.
- Lamb, B. (2013). *Accountability, the local offer and SEND reform: a cultural revolution?'. In How Will Accountability Work in the New SEND Legislative System?, SEN Policy Research Forum* . Retrieved July 18, 2018, from <http://www.sendpolicyforum.org.uk/page.php?id=171>
- Landor, F., & Perepa, P. (2017). Do resource bases enable social inclusion of students with Asperger syndrome in a mainstream secondary school?. . *Support for Learning*, 32(2), 129-143.
- Leigers, K., Myers, C., & Schneck, C. (2016). Social participation in schools: A survey of occupational therapy practitioners. *American Journal of Occupational Therapy*, 70(5), 1–15.
- Lindqvist, G., Nilholm, C., Almqvist, L., & Wetso, M. (2011). Different Agendas? The Views of Different Occupational Groups on Special Needs Education. *European Journal of Special Needs Education*, 26(2), 143-157.
- Lust, C., & Donica, D. (2011). Effectiveness of a handwriting readiness program in Head Start: A two-group controlled trial. *American Journal of Occupational Therapy*, 65(5), 560-568.
- Maher, A., & Vickerman, P. (2018). Ideology influencing action: special educational needs coordinator and learning support assistant role conceptualisations and experiences of special needs education in England. *Journal of Research in Special Educational Needs*, 18(1), 15-24.
- Maxwell, J., & Miller, B. (2008). Categorizing and connecting strategies in qualitative data analysis. In S. Hesse-Biber, & P. Leavy, *Handbook of emergent methods*. New York, US: A Division of Guilford Publications, Inc.
- McKean, C., Law, K., Laing, M., Cockerill, J., Allon-Smith, E., McCartney, H., & Forbes, J. (2017). A Qualitative Case Study in the Social Capital of Co-Professional Collaborative Co-Practice for Children with Speech, Language and Communication Needs. *International Journal of Language and Communication Disorders* , 52(4), 514-527.
- McNaughton, C., Kotecha, M., & Mills, L. (2014). Observation. In J. Ritchie, J. Lewis, C. McNaughton, & R. Ormston, *Qualitative research practice*. London, UK: Sage Publications Limited.
- Missiuna, C., Pollock, N., Campbell, W., Dix, L., Sahagian, S., & Stewart, D. (2015). Partnering for change: Embedding universal design for learning into school-based occupational therapy. *Occupational Therapy Now*, 17(3), 13-15.
- NAPOT. (2005). *Memorandum submitted by the National Association of Paediatric Occupational Therapists*. Retrieved July 23, 2018, from <https://publications.parliament.uk/pa/cm200506/cmselect/cmeduski/478/478we54.htm>

- Norwich, B. (2010). A response to 'Special Educational Needs: A new look'. In M. Warnock, B. Norwich, & L. Terzi (Ed.), *Special Educational Needs: A new look* (2nd ed.). London, UK: Continuum International Publishing Group.
- Norwich, B. (2013). *Addressing tensions and dilemmas in inclusive education: living with uncertainty*. London, UK: Routledge.
- Norwich, B., & Eaton, A. (2015). The new special educational needs (SEN) legislation in England and implications for services for children and young people with social, emotional and behavioural difficulties. *Emotional and behavioural Difficulties*, 20(2), 117-132.
- Ohl, A., Graze, H., Weber, K., Kenny, S., Salvatore, C., & Wagreich, S. (2013). Effectiveness of a 10-week Tier-1 Response to Intervention program in improving fine motor and visual-motor skills in general education kindergarten students. *American Journal of Occupational Therapy*, 67(5), 507-514.
- Palikara, O., Castro, S., Gaona, C., & Eirinaki, V. (2018). Professionals' views on the new policy for special educational needs in England: ideology versus implementation. *European Journal of Special Needs Education*, 1-15.
- Pearson, S., Mitchell, R., & Rapti, M. (2015). I will be "fighting" even more for pupils with SEN: SENCOs' role predictions in the changing English policy context. *Journal of Research in Special Educational Needs*, 15(1), 48-56.
- RCOT. (2014). *Guide for commissioning, finding and planning services which include occupational therapists*. Retrieved July 1, 2018, from <https://www.rcot.co.uk/sites/default/files/Guide%20for%20commissioning%20funding%20and%20planning%20services.pdf>
- RCOT. (2016). *Provision and commissioning of occupational therapy services for children and young people*. . London, UK.: Royal College of Occupational Therapists. Retrieved 08 25, 2018
- Robson, C. (2016). *Real world research* (3rd ed.). Oxford, UK: Blackwell Publishing.
- Royal Free. (2018). *Camden Local Offer*. Retrieved July 23, 2018, from <https://www.royalfree.nhs.uk/services/services-a-z/occupational-therapy-services-for-children-and-young-people/camden-local-offer/>
- Spencer, C., Turkett, A., Vaughan, R., & Koenig, S. (2006). School-based practice patterns: A survey of occupational therapists in Colorado. . *American Journal of Occupational Therapy*. , 60, 81-91.
- Stephenson, P. (2019). Building Resilience and Minimizing Burnout in School-Based Practice. *Journal of Occupational Therapy, Schools, and Early Intervention*, 0(0), 1-11.
- Symes, W., & Humphrey, N. (2011). School factors that facilitate or hinder the ability of teaching assistants to effectively support pupils with autism spectrum disorders (ASDs) in mainstream secondary schools. . *Journal of Research in Special Educational Needs*, 11(3), 153-161.
- Thomas, G. (2017). *How to Do Your Research Project: A Guide for Students* (2nd ed.). London, UK: Sage Publications.
- Webster, R., Blatchford, P., Bassett, P., Brown, P., Martin, C., & Russell, A. (2010). Double standards and first principles: Framing teaching assistant support for pupils with special educational needs. *European journal of special needs education*. , 25(4), 319-336.
- WFOT. (2016). *Position statement of Occupational Therapy services in school-based practice for children and youth*. . Retrieved July 27, 2018, from

<https://www.apeto.com/assets/servicios-de-to-en-pr%C3%A1cticas-basadas-en-los-colegios-ni%C3%B1os-y-adolescentes--ingl%C3%A9s.pdf>

Wintle, J., Krupa, T., Cramm, H., & DeLuca, C. (2017). A scoping review of the tensions in OT–teacher collaborations. *Journal of Occupational Therapy, Schools, and Early Intervention*, *10*(4), 327–345. <https://doi.org/10.1080/19411243.2017.1359134>