The impact of Covid-19 on the working practices of Teachers of the Deaf during ‘Lockdown 1’

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Sarah Davis BSc (Hons), P.G. Dip, P.G.C.E., P.G. Dip.

Mary Hare, Newbury

Partnered with University of Hertfordshire, Hatfield

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Abbreviations

BATOD	British Association of Teachers of the Deaf
CYP	Children and young people
CYP-D	Children and young people who are deaf
DfE	Department for Education
EAL	English as an additional language
EEF	Education Endowment Foundation
EHCP	Education and Health Care Plan
MDT	Multi-disciplinary Team
NatSIP	National Sensory Impairment Partnership
NDCS	National Deaf Children's Society
Ed.Aud.	Educational Audiologist
QToDs	Qualified Teachers of the Deaf
QToD-P	Qualified Teacher of the Deaf working in a peripatetic role
SEND	Special educational needs and disabilities
TA	Teaching Assistant

The term 'deaf' has been used to represent varying hearing levels from mild to profound. It is also used to include those who identify culturally as Deaf.

Abstract

This study investigates the changing pedagogy of qualified peripatetic Teachers of the Deaf during the initial stages of the Covid-19 pandemic when schools were closed to most children. The study also aims to investigate the nature of changing working relationships during that time, with school staff, parents and care givers as well as the wider multi-disciplinary team.

A Covid-19 secure, mixed-methods approach was used. Quantitative and qualitative data was produced from an online survey of twenty qualified peripatetic Teachers of the Deaf. This information informed the themes that were then developed further through five semi-structured interviews. An inductive approach to coding using nVivo12 was adopted.

The findings of this study suggest that qualified peripatetic Teachers of the Deaf quickly learnt and embraced new technology which facilitated a continuity of service. Adaptive pedagogy saw a move away from children or young person who are deaf, towards supporting and coaching parents and caregivers so that *they* could better support, advocate for and empower their children. Crucially, person-centred approaches, whether relating to the child or young person who is deaf, their parents or caregivers, the multidisciplinary team or school-based staff were essential during this time.

Further investigation into the impact of the use of coaching models to develop holistic pedagogical change would be of value especially if applied across virtual platforms. In addition, the development of an accessible digital policy that incorporates collaborative training is also essential.

1. Introduction

On March 20th 2020, schools in England were shut to all children with the exception of children of key workers and most vulnerable children due to the Covid-19 pandemic. These closures were echoed around the world with schools being closed across 188 countries, disrupting learning for 1.6 billion children, youth and families (OECD, 2020b). Education for most children and young people (CYP) was continued with a move to remote learning through digital learning platforms such as television, radio or online learning.

Initial findings investigating the impact of school 'closures' during 'Lockdown 1' (March 2020 – July 2020) have focussed on the progress that CYP have made in their learning (Andrew et al., 2020; DfE & SPI-B, 2020) the impact upon their mental health (DfE, 2020; Newlove-Delgado et al., 2020) and the pedagogical agility of teachers (Barron et al., 2021; Ellis et al., 2020). However, for the 46,404 children and young people who are deaf (CYP-D) in English schools (CRIDE, 2019) the support that they received from Qualified Teachers of the Deaf working in a peripatetic role (QToD-P) required instant modification; school and home visits were no longer possible and so new ways of providing support for CYP-D, their parents/caregivers and school staff needed to be rapidly developed. This is a subject which currently lacks critical investigation. As such, this study aims to identify ways in which pedagogy has been adapted, and how relationships with CYP-D, their parents and caregivers and the wider multi-disciplinary team continued. Critical insights may provide support opportunities for QToD-P both within the current context and also identify purposeful training opportunities for developing practice going forward.

Through a literature review, the educational environment for CYP-D is identified as well as the role of the QToD-P. This is then examined together with the changes to education provision and the impacts of this, for all children over the time period from March to July 2020, a period known as 'Lockdown 1'. Further

to this, the impact of Lockdown 1 is investigated in relation to CYP-D and the role of the QToD-P. The methodology section details the research design including the research parameters and participant selection. The results and discussion section presents both qualitative and quantitative data with an analysis of both, alongside a critical discussion which makes suggestions for future research and pedagogical change.

In should be noted that in January and February 2021, schools faced a further period of closure. The data collected for use in this study has focused solely on Lockdown 1.

2. Literature review

Due to the current nature of the Covid-19 pandemic, little research has yet been carried out on the impact of school closures to most children on the working practices of QToD-P. As a result, the search criteria for academic papers, using Scopus, PubMed, Science Direct and JSTOR databases widened. This included: educational provision, impacts of school closures on pedagogy, relationships between teachers, parents/caregivers and children and young people (CYP) generally, as well as access to technology and on-line learning. It was decided to not use print media as a resource to ensure that the literature was, as far as possible, objective and research based. The available research that relates specifically to CYP-D comes from the British Association of Teachers of the Deaf (BATOD) and is being continually updated as the situation changes. Their research has focussed on raising awareness of the challenges that are being faced not just by CYP-D but also their parents/caregivers, education settings and the provision of specialist services (BATOD, 2021b). BATOD's current priority focus is on equality of access as a result of the requirement for face coverings to be worn in secondary schools.

This study aims to add to the extant literature relating specifically to CYP-D. It will examine the perceptions of QTOD-P on the impact of school closures to most children on their working practices. It seeks to determine how effective those practices have been during that time with the purpose of identifying good practice and areas that can be further improved through pedagogical change.

2.1. Educational provision for CYP-D in England

One to two babies per thousand are referred from New-born Hearing Screening and are subsequently diagnosed as having a permanent hearing loss at birth (NHS, 2018). When combined with acquired permanent hearing loss and temporary hearing loss, the number of deaf children is reported to be 46,404

(CRIDE, 2019) although this figure varies slightly throughout the report due to data collection methods. Of these children, 77% are reported to be supported at home, in an early-years setting or in a mainstream provision (either state-funded or independent). The remaining CYP-D are either in a resourced provision, or a specialist setting for deaf pupils or for other additional needs (CRIDE, 2019). Importantly, CRIDE (2019) reports that 36,767 children with permanent deafness were on 'caseload' and as such supported by a QToD-P. Caseload in this instance was defined as being 'children who receive some form of support more than once a year' (CRIDE, 2019, p.12). This support will vary across different authorities but may include hearing aid checks, liaison between families, schools and wider professionals as well as direct teaching. This aligns with the assumption set out in Section 1.26 of the SEN Code of Practice (Department for Education, 2015) which assumes a mainstream education as the standard education route for all children with a special educational need or disability, with their needs being met through reasonable adjustments to the mainstream setting (Section 1.34).

It is worth noting here that the data from CRIDE, 2020 has not been used due to the unusually low response rate of 77 per cent (CRIDE, 2020), as a consequence of the Covid-19 pandemic.

2.1.1. The role of the QToD-P in mainstream educational settings

All training programmes for Qualified Teachers of the Deaf (QToD) are governed by minimum quality standards set by the Department for Education (DfE) (2018). These standards are designed to ensure that anyone holding the mandatory qualification is able to 'make maximum impact on practice' (DfE, 2018. p.14). These standards are crucial in guiding the working principles of QToD and cover a wide range of skills that aim to support CYP-D to make optimal and holistic progress. They cover relationships with deaf learners and their families, current legislation and the education framework, audiology, language communication and interaction, teaching and learning, social and

emotional development and well-being, supporting transition and transfer and partnership working (DfE, 2018).

In a peripatetic role, a QToD's job is multifaceted. A key aspect of the role is to provide advice to CYP-D, parents/caregivers, teachers and involved agencies as well as working directly with the CYP-D through an enriched language input (Simpson, 2017). It is important to note that the professional qualities and attributes of a QToD-P identified in the mandatory qualifications relate directly to relationship with deaf learners and their families (DfE, 2018) and highlight the importance of Early Support Principles. Funding for the Early Support programme came to an end in 2015, however, Early Support Principles are embedded in Section 19 of the Children and Families Act (2014) by stressing the concept of person-centred care through which meaningful communication is used to support the development of relationships (Health Education England, 2017).

The complex nature of the role of a QToD-P has been conceptualized by Swanwick (2014) through an ecological systems framework derived from Bronfenbrenner (1979). The model emphasises the bi-directional relationships between people and context and highlights the vital importance of communication, relationships and quality interactions (Hayes et al., 2017) to engender change, rather than compartmentalising the varied individual tasks of the role. Indeed, this approach, based on collaborative relationships around a goal focussed activity could be argued to lend itself more to coaching (Passmore et al., 2012) rather than teaching. In essence, the QToD-P aims to develop the skills of someone else in order that they can solve problems for themselves. This may focus on upskilling a mainstream teacher to ensure that their lessons are accessible to CYP-D, equipping parents with the knowledge of how to maintain and troubleshoot personal listening equipment (such as hearing aids or cochlear processors) or supporting a CYP-D to understand their own deafness in order that they can self-advocate.

2.2. Changes to education provision in England during Lockdown 1

2.2.1. Changes to the legal position for the provision of education

As a consequence of the speed at which education provision moved to a remote offer there were initial contextual factors that defined the provision of learning (Gouëdard et al., 2020). These were determined by both school and family resources, such as the skills and availability of family members or access to computer technology and broadband (Hattie, 2020), as well as the legal situation; the Coronavirus Act 2020 temporarily modified section 42 of the Children and Families Act 2014, enabling provision within Education and Health Care Plans (EHCP) to be met though reasonable endeavours.

2.2.2. Impacts of school closures on outcomes for CYP

The OECD (2020a), in their multi-national research into the long-term impacts of school closures, have highlighted a hysteresis effect in education caused by school closures for the most disadvantaged children and young people. Consideration here goes far beyond the short-term learning loss that may have occurred during this time; disengagement from the school system as well as reduced educational aspirations have potential to continue into the future. It may be possible to attribute these findings to evidence that engagement with home learning was much lower in schools with the highest levels of deprivation (Lucas et al., 2020) as well as the assertion that the effect of home resources such as parental involvement, high expectations and family communication quality are powerful in supporting educational progress (Hattie, 2020). Furthermore, evidence suggests that those CYP who are economically marginalised will experience broader inequality due to lack of technological access (Jain et al., 2020). This finding is supported by the Education Endowment Foundation (EEF) (2021) who found that when measuring outcomes in relation to reading and maths of 6,000 Year 2 pupils across 168

schools in England during the Autumn term of 2020, that the achievement gap was most significant for the most disadvantaged pupils.

Lucas et al.'s (2020) national survey in May 2020 of 1,233 senior leaders and 1,821 teachers across mainstream state-funded primary and secondary schools in England, evidenced that engagement with home learning was low amongst pupils with special educational needs and disabilities (SEND) which may also contribute to the hysteresis effect and raises concerns regarding the engagement and progress of CYP-D. Further to this, Newlove-Delgado et al. (2021) reported that children from families who struggled financially during the pandemic were twice as likely to report mental health problems, further highlighting the potential hysteresis effect on children and young people who are disadvantaged.

2.2.3. Impacts of school closures on pedagogical approach

As learning moved to digital platforms there was an initial 'simple' replication of a traditional classroom in an online context (Hattie, 2020). Whilst a pragmatic approach was necessary, it was also recognised that this new virtual learning environment needed to be both meaningful and effective, and this required pedagogical agility (Kidd, 2020b). Indeed, the move to online learning was so critical to the continuity of education provision during this crisis that the European Commission has created a Digital Education Plan (2021-2027) for European Union member states. It aims to develop not just an infrastructure and teachers who are digitally competent, but also high-quality content set within an up-to-date organisational capacity (2020). This development is critical when considered alongside Kaiser & König's (2019) pre-Covid-19 research that teacher competencies are often regarded as 'context-specific'. Indeed, research conducted during the school closures indicates the need for pedagogical training for online situations (Jain et al., 2020) and to ensure that high quality adaptive teaching was combined with digital competence (König et al., 2020).

Crucially, there was no social model from which to gain vicarious experience of teaching online during Lockdown 1. As such, the initial digital competence and flexibility of teaching staff to take on challenging tasks with persistence was essential to facilitate learning within a new malleable online learning setting. Indeed, Bandura's self-efficacy theory in which 'people's beliefs in their capabilities to produce desired effects by their own actions' (Bandura, 1997, p.vii) aligns with this concept.

2.2.4. Impacts of school closures on teacher relationships with CYP and their parents/caregivers

The importance of positive relationships within the classroom should not be overlooked; higher quality attachment with the mainstream teacher has been reported to lead to higher levels of achievement over the long term as well as greater participation and engagement (O'Connor & McCartney, 2007). However, during the initial period of school closures, Lucas et al. (2020) reported that teachers in mainstream schools were able to maintain contact with only approximately 60 % of pupils. Although it must be noted that this research was conducted in May 2020 and the ongoing crisis management nature of the situation had not enabled the potential for the reimagining of educational organisation which may ultimately provide an opportunity for schools and homes to be brought closer together (Gouëdard et al., 2020).

Contrary to this, Kidd's (2020a) case study of a primary school in Redbridge, London, reports an increased collaboration with parents and improved relationships with CYP which he attributed directly to the increased flexibility of using a virtual classroom. Crucially however, these relationships were already established and were strengthened rather than created using alternative media; there is no guarantee that strong relationships would develop if they were initiated through a virtual classroom.

Of interest here, is research from Berry et al. (2011) investigating the relationships of 102 coaches who all had a psychology or counselling background. They found no noticeable difference in the relationships formed (and outcomes achieved) between face-to-face interactions and distance coaching. Although the research does not relate directly to teaching, it does provide evidence that strong and effective relationships can be formed with adults online. Additionally, McCarthy et al. (2021) assert that family-centred early intervention delivered through tele-practice did not result in any significant differences in family-centred practices than in-person sessions (despite the research not indicating any outcome measures). As such, it could be accepted that the development and maintenance of strong relationships with adults through a virtual platform should be considered possible when using appropriate techniques to develop a relationship.

Redmond et al.'s (2018) study into student online engagement within a higher education environment highlighted the importance of the social and emotional dimensions in their five-dimension pedagogical touchpoints model. As well as cognitive, behavioural and collaborative dimensions which relate to more traditional aspects of learning, the social and emotional dimensions highlight the importance of trust, respect and relationships as well as expectations, motivations and values. Their model aims to develop a more comprehensive, reflective method of determining learner engagement that goes beyond counting the number of interactions between participants in the online classroom and draws attention to the importance of *meaningful* communication.

2.3. Impact of school closures of CYP-D

2.3.1. Impacts of school closures on access and outcomes for CYP-D

In 2017, children whose primary SEN was identified as a hearing impairment, at the end of Key Stage 2 achieved a progress score of -1.1, -0.6 and -0.3 for

reading writing and maths respectively (National Statistics, 2018). A similar picture can be observed from Key Stage 4 data which indicates an average Attainment 8 score for all children of 46.3 but for children whose primary need is a hearing impairment, this figure was 37.4 (National Statistics, 2018). It may be considered therefore, that this cohort of CYP-D who were affected by school closures in 2020 may be vulnerable to a lower level of engagement as well as the hysteresis effect described by the OECD (2020a). Indeed, Lucas et al. (2020) suggest that only 58 % of CYP with an SEN or disability were engaging with home learning at that time. However, it should be noted that this figure does not relate specifically to CYP-D. Additionally, BATOD (2020a) reported a potentially widening attainment gap due to lack of specialist support. Further to this, in the moment adaptions that may occur in the physical classroom either by the teacher or a teaching assistant will be complicated by the nature of the virtual classroom and some responsibility for this may need to be handed over to the caregiver (Stenhoff et al., 2020), the success of which will depend on the resources within the home (Hattie, 2020).

Access issues that relate to the use of residual hearing, access to high quality captions and high-quality visual image to enable lip reading as well as use of available assistive listening devices (devices used in conjunction with hearing aids or cochlear processors that enhance amplification or reduce the impact of background noise) may be compounded in a virtual learning environment as an additional barrier to learning for CYP-D despite various organisations and sensory support services issuing guidance to improve accessibility (National Deaf Centre, 2020; NDCS, 2020; Sutton, 2020,). Additionally, BATOD (2020b) raised the issue of access to the Education Select Committee. Access issues are further complicated by the fact that specialist teachers are trained to support access to learning in the ‘current’ context (McLinden and Douglas, 2014) however the ‘current’ context shifted both rapidly and dramatically when schools were closed and resulted in QToD-P were working within a context for which they were neither trained nor prepared.

Of additional concern, is the teaching of CYP-D in learning to access for themselves as a long-term approach. Research by McLinden et al. (2016) with young people with a visual impairment suggests that specialist teachers (such as a QToD-P) have a dual role of enabling *access to learning as well as learning to access*. However, these factors are based on a traditional physical school environment and as such it may account for Lynn et al.'s (2020) assertion, based on research with university students who are deaf, that deaf students are 'more insecure and inadequate' (p.3323) than hearing peers when using virtual platforms. In addition, these barriers to learning may be exacerbated by a reduction in exposure to indirect language learning (Stack Whitney & Whitney, 2021) when using a virtual learning environment as well reduced access to gestural or physical prompting (Stenhoff et al., 2020) and the lack of social development that is usually available within a physical school environment (König et al., 2020).

An additional consequence for CYP-D of Lockdown 1 may have been the impact on mental health. Government data from 2005 discussed by the NDCS (2017) suggests that a greater number of CYP-D are reported to have mental health difficulties than compared with hearing peers, 40% compared with 25% respectively. Indeed, during the period April-October 2020, two percent of disabled children who called Childline (the NSPCCs support line for children and young people) were CYP-D (NSPCC, 2021). It could therefore be considered that CYP-D are additionally vulnerable to making expected progress during this time.

2.3.2. Impacts of school closures on pedagogical approach of QToD-P

BATOD, the professional body for Teachers of the Deaf in the UK led, supported and investigated pedagogical changes through the use of online questionnaires of members during the period of school closures. This ranged from hosting and sharing resources and information from various authorities across the UK, working in partnership with the National Deaf Children's Society

(NDCS) and National Sensory Impairment Partnership (NatSIP) as well as championing the needs of CYP-D to the Education Select Committee (NatSIP, 2020).

In May 2020, BATOD surveyed members through an online questionnaire and received survey responses from 438 members out of a UK wide membership greater than 1484 (CRIDE, 2018) and found that CYP-D had 'limited access to specialist support from Teachers of the Deaf and also communication support workers' (BATOD, 2020a, p.2). A lack of access to CYP-D during this time also resulted in a lack of ability to support the use and maintenance of personal and assistive listening devices although some CYP-D were reported to be wearing their hearing aids with greater frequency (BATOD, 2020a). However, some QToD were able to carry out door-step "drive by" visits to support technology outside of the CYP-D's home (BATOD, 2020a, Para 18) for example, setting up an assistive listening device or re-tubing hearing aids. This type of creative, local adjustment to standard working practices could be described as solving a situation under pressure in order to create stability with such innovations becoming less reactive and more deliberate over time (Ellis et al., 2020).

Despite the complication that some QToD were redeployed in some areas (although BATOD do not quantify this figure) for example, covering mainstream online classes where there were staff absences, there was a significant demonstration of pedagogical agility: posting resources home before online sessions; increased multi-disciplinary team working due to the ability to attend remotely; and increased deaf awareness training using remote platforms (BATOD, 2021a). McColgan (2021) reported changes within the Ayrshire service as including, preparing differentiated tasks and explaining these to parents over the telephone as well as delivering a care and troubleshooting pack to parents/caregivers along with instructions to ensure that families were able to take care of personal listening devices.

Additionally, there were varying levels of parents'/caregivers' support provided that ranged from providing instruction, a single training session or ongoing coaching session (Stenhoff et al., 2020) that were adaptable to an online approach. Wainer & Ingersoll's (2015) research into tele-practice with parents of children with autistic spectrum disorder noted that observations and training of caregivers can be successfully conducted at a distance with opportunities for feedback and highlighted the acute importance of collaboration between teachers and caregivers. This research is supported by Gerrett's (2021) description of her personal experience as both a QToD and Auditory Verbal Therapist, of pedagogic changes during Lockdown 1 as 'a change from the therapist being the actor with the parent in an observer role, to the parent being in an actor role. The guiding clinician takes on more of an observer and coaching role' (p.15). Of great concern however, in the use of tele-health is the differential impact on deaf QToD due to barriers to remote access such as limited access to high quality closed captions, poor image quality and a restricted view of body language and environmental clues which reduced their ability to support CYP-D (BATOD, 2020b).

Importantly, BATOD's (2021a) survey in January 2021 when schools were once again closed to most children and young people, noted the improvement in QToD-P's ability to carry out online teaching with pupils, as well as liaison and training of mainstream staff, because of the increase in staff who were trained in using online platforms. This suggests perhaps that QToD-P had moved towards acceptance and even possibly enthusiasm in adopting these new ways of working. This contradicts Luckner & Howell's (2002) USA based research on twenty-five peripatetic teachers of CYP-D in which they concluded that most programmes to train ToD are equiping them to work in self-contained classrooms, as well as König et al.'s (2020) assertion that teaching skills may be considered to be context specific.

2.3.3. Impacts of school closures on QToD-P and relationships with CYP-D, parents and caregivers and school staff.

Partnership and relationships are themes that run through the SEN code of practice (2015) as well as the Children and Families Act (2014). They recommend a partnership between parents and professionals within a multi-agency team with the intention that service delivery for children with a disability are CYP and family centred (The Communication Trust, n.d). More specifically, that staff providing information and advice should work in partnership with parents (as well as CYP and other relevant professionals), highlighting that effective participation of parents to develop a 'better fit' between parents and service providers (DfE, 2015, p.63). Further to this, the ability to develop and maintain professional relationships is also as an essential professional quality for QToD and is stated in the Mandatory Qualifications (DfE, 2018).

These qualities are supported by BATOD's (2020a) report, which highlights strengthened relationships with families and a more personalised approach to learning, as well as increased flexibility and greater partnership working during Lockdown 1. Indeed, a QToD-P may be considered as a valuable resource, one who is able to strengthen the relationships between the school and the home as well as positively shaping a family's response to a new diagnosis of deafness (Harr, 2000). This is supported by BATOD's (2020b) representation at the Education Select Committee enquiry which clearly stated the importance of immediate support for newly identified CYP-D. However, BATOD (2020a) also noted the difficulties of maintaining contact with families who use English as an additional language (EAL) which suggests a differential level of support for families during Lockdown 1.

Salter et al. (2017) determined that it is easier to develop collaborative practices in a primary school than a secondary school as the QToD-P often creates a strong link with the Teaching Assistant (TA). Crucially, Salter et al. note that the mainstream teacher does not always have a good idea of the impact of

deafness on the CYP-D learning. As such, the role of the TA in the online classroom in relation to the progress and engagement of CYP-D is an important aspect for future investigation. This is particularly important when considered alongside the National Foundation for Education's report (Sharp et al., 2020) that despite the majority of mainstream pupils being at home to learn, their staffing focus was related to in-school provision.

Of importance here also is the voice of the child. McClean (2021) reported from personal experience that pupil feedback may be reduced when given through a virtual platform, as well as the voice of the parents/caregivers. BATOD (2020a) noted the impact of a reduction of face-to-face communication and limited access to QToD. Unfortunately, despite searching across Scopus, PubMed, Science Direct and JSTOR databases, there is no extant literature currently available from which to draw further regarding the relationships between QToD-P and CYP-D during the Lockdown 1 period.

2.4. Conclusion

Lockdown 1 was a fast moving ever evolving situation without precedent. Models of effective working and the use of technology were being rapidly developed with research into their effectiveness being carried out in parallel; little research pertained to CYP-D and the impact of lockdown on them or the working practices of QToD-P.

A pragmatic, crisis-led plan resulted in education being moved on-line for the majority of students however, there has been a differential impact on CYP who are economically disadvantaged, those who have limited home resources, CYP whose families use EAL, as well as those with a SEND. For CYP-D this differential effect may be further exacerbated by the lack of non-verbal clues, the complexities of lip-reading and following auto-captions on video lessons as well as reduced access to school support staff and QToD-P.

Despite restricted access to CYP-D, QToD-P demonstrated pedagogical agility to ensure that CYP-D were able to make maximum progress, academically, socially and personally. Crucially QToD-P continued to develop relationships with parents/caregivers, school staff and the wider multidisciplinary team in accordance with the SEN code of practice (2015) by adopting a flexible and more personalised approach.

3.0. Methodology

3.1. Introduction

A mixed-methods research approach was adopted to determine the impact of Covid-19 lockdown on the working practices of QToD-P during Lockdown 1. Three research questions were explored:

1) What impact has Covid-19 had on the working practices of QToD-P?
2) What impact has Covid-19 had on the inter-professional collaboration of QToD-P?
3) What impact has Covid-19 had on relationships between QToD-P, CYP-D and their families?

3.2. Ethics

Ethical approval (Appendix I) was sought from the University of Hertfordshire following BERA (2018) guidelines. Due to the Covid-19 pandemic, ethics permission would not be granted for face-to-face contact and physical objects such as paper copies of EC3 (consent forms) and EC6 (participant information sheets) were also not allowed (University of Hertfordshire, 2020a) therefore, collection of data was limited to remote methods only.

The University of Hertfordshire's ethics approval required that 'Jisc Online Surveys' was used for the online questionnaire as it is considered that other online data collection services do not meet with data privacy guidelines (University of Hertfordshire, 2020b). Furthermore, it was stipulated that permission was not required for participation in the online questionnaire, but it was essential that participant information was included on the first page of the survey.

Completion of an ethics permission form (Appendix II) and sharing of the participant information sheet (Appendix III) was required for those individuals who participated in the online interviews. Participants were asked which local authority they are employed by to aid comparisons although this information was not compulsory and has been anonymised in research findings.

All information has been stored on my personal laptop which is password protected and locked in a cupboard which is secured in my home. No hard copy data will be kept. All data and recordings will be deleted after the dissertation module is passed at exam board which is anticipated to be before 31st December 2021.

In line with BERA (2018) guidelines, care was taken to reduce the impact of participation. Interviews were scheduled at a time that suited the interviewee to ensure that their involvement did not add to their personal levels of stress during a period of change.

3.3. Design

Methodological approaches available to investigate these questions was restricted to remote methods only. Principal, remote methods of primary data collection include data collected via telephone, online or other virtual platforms (Hensen et al., 2021). I dismissed the use of telephone interviews due to the complexities of developing both trust and rapport over a period of time that was limited to one-hour, and also due to the inability to interpret non-verbal cues. Additionally, the telephone reduces equality of access for any deaf participants and so only methods which used online (e.g. internet based questionnaires), and virtual platforms (e.g. video conferencing) were available to me. I chose to research across both platforms, employing an initial internet questionnaire (Appendix IV) followed by interviews using video conferencing. This enabled a

mixed-methods approach and aimed to provide more in-depth findings by using 'the strengths of one approach to complement the restrictions of another' (Regnault et al., 2018, p.1).

A focus group was considered for eliciting comparisons and rich narrative as they can provide the benefit of less inhibited participants (Tracy, 2019). However, I felt that the common issues of domination by one individual (Atkins & Wallace, 2012) and/or complex group dynamics may be compounded by the online nature of the research and therefore this research method was not used. Furthermore, levels of individual stress during the pandemic were such that I felt that any interviews should be carried out at a time chosen by the participant to avoid an extra burden of stress. This may not have been possible when coordinating more participants.

In order to objectively evaluate and identify patterns in the functional changes to QToD-P daily working practices, quantitative data was collected through an on-line questionnaire. This baseline data was complemented by the use of open questions included in the questionnaire to elicit qualitative data, as well as multiple case studies through semi-structured interviews.

An inductive approach to coding qualitative responses from the questionnaires, using nVivo12, supported a creative approach to analysis (Zamawe, 2017) but did not create an 'outsider' position (McNess, 2013). This then led to the formation of the semi-structured interview schedule (Appendix V). The interviews were fully transcribed and were then themed deductively, using nVivo12, according to the conceptual framework that had previously emerged. This enabled a rich and holistic narrative to be captured and permitted interpretation of the voice and experiences of the participants (Tracy, 2019).

3.4. Data collection

Participants were chosen through a non-probability convenience sample as it posed the fewest potential obstacles to recruitment, time and cost, despite having the potential of reduced generalizability when compared with probability samples (Cohen et al., 2017; Jager et al., 2017). Care was taken to recognise that the impact of participation on the workload of participants was not too great (BERA, 2018); the questionnaire was kept to 20 minutes and interview time limited to a maximum of one hour.

3.4.1. Phase 1: Questionnaire

The questionnaire, created using 'Jisc Online Surveys', included both quantitative and qualitative questions to ensure that the themes identified within the qualitative data were supported quantitatively, and by doing so, a layer of rigidity was added. As well as being Covid-19 secure, an online method of data collection enabled participants to complete the questionnaire asynchronously thus increasing the ability to participate at a convenient time and to choose how long to commit to completion (Evans & Mathur, 2005). Additionally, the 'finish later' option was available to participants in order to increase validity and reliability; participants were 'more free, flexible, and independent' (Kılınç & Fırat, 2017, p.1461) when using this platform compared to a face-to-face method. Whilst it was possible to eliminate the potential for 'farming', (the completion of an on-line survey more than once) which can influence survey results in unpredictable ways (Chesney & Penny, 2013) by setting a password linked to a respondent email address this would have removed the possibility for respondents to participate anonymously. Lack of anonymity may have impacted upon disclosure (Murdoch et al., 2014) and any questions that required personal disclosure such as name of employer or email address were non-compulsory. In addition, it was important that the participants freely volunteered to be involved in the research to ensure ethical compliance (BERA, 2018) however, it is possible that this may have led to a non-response bias due

to self-selection and/or under-coverage of potential participants (Bethlehem, 2010). Care was taken with the length of the questionnaire as shorter questionnaires have higher response rates (Deutskens et al., 2004). In addition, they were followed up immediately following the closing date (two weeks from initial contact), as early follow up can support increased participation (Deutskens et al.,2004).

3.4.2. Phase 2: Semi-structured interview

Inductive coding, using nVivo allowed common themes from Phase 1 to be identified. These themes were used to develop a semi-structured interview structure. The initial primary themes were:

- Changes to working practices
    - Audiology
    - Teaching
    - Training
- Interprofessional collaboration
- Relationships between QToD-P, CYP-D and their parents/caregivers
    - New referrals

Covid-19 compliant online interviews were conducted using MS Teams. This platform permitted a greater equality of access than other platforms (at that time) as auto captioning was available. The online method of interviewing reduced difficulties of participation due to the time and cost of travel however, an additional barrier of access to technology and digital literacy may have discouraged some potential participants (Janghorban, 2014).

The interviews enabled engagement with participants in a way that questionnaires do not permit; it allowed the development of a personal narrative

to be developed, thus enabling a more in-depth understanding of the topic (Atkins & Wallace, 2012). However, it is important to note here that interviewing online may have meant that some non-verbal cues were missed (Bailenson, 2021; Curasi, 2001; Janghorban, 2014) which may have resulted in some issues not being probed further or follow up questions not being asked. Furthermore, I was not able to control the participants' environment. Whilst the research environment was not a significant factor in the understanding of the participant, the home situation at that time (e.g. noisy children or extended period of isolation) may have differentially affected their responses. This was ameliorated as much as possible by allowing the participants to choose the time at which the interview would be conducted so that they could ensure the optimal time and resultant domestic situation for when the interview would occur.

Before commencing the online interview, participants were asked to orally confirm that they had read the participant information and also reminded of the content of their signed ethics form that they had previously returned by email. In an attempt to ensure open and honest dialogue, participants were assured of their anonymity when using their responses within the research. They provided oral confirmation that they were still happy to continue and for the session to be video recorded.

3.5. Participants

Twenty QToD-P from across a range of local authorities were recruited through a non-probability snowball sampling approach (Daniel & Harland, 2017) which was initiated through personal contacts. This number of participants was chosen to be large enough to provide representation for QToD-P across England but also to be small enough to be manageable within the time frame.

Twenty QToD-P, three of whom were also Educational Audiologists (Ed.Auds, completed the online questionnaire, within two weeks of the initial contact. This is important to note as this high representation of Ed.Auds. may have an impact on the results obtained from both the questionnaire and the interview process due to the enhanced audiological role of their job which often reduces active teaching caseload. Eighteen participants chose to disclose the authority for which they worked. Of those 18, twelve different local authorities were represented. The participants also represented a wide range of experience (Table 1) although this was skewed towards those with more than ten years' experience.

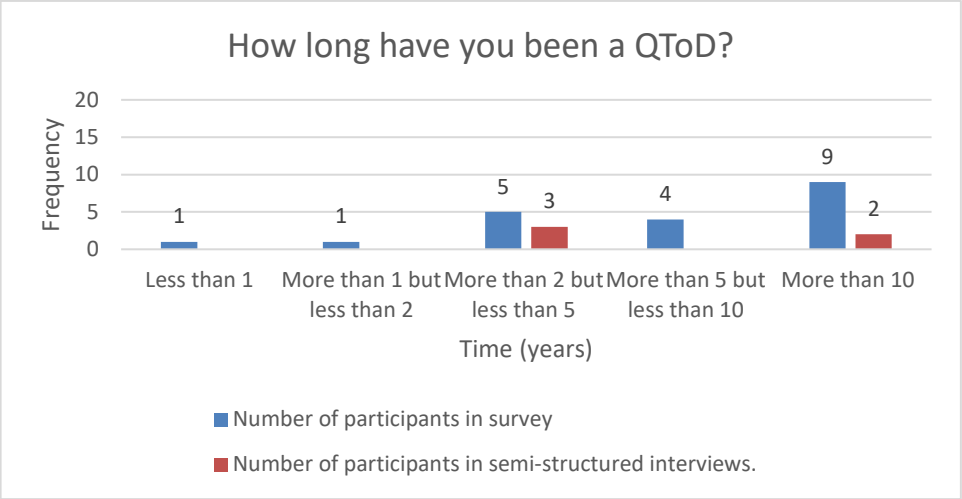

Figure 1: Experience of participants

Fourteen of the original twenty respondents indicated on the questionnaire that they were happy to participate in a follow up on-line interview and provided contact details. From those 14, five participants were selected through simple random sampling and contacted through their preferred method as indicated on the questionnaire (one by phone and four by email). Three agreed with two non-respondents. A further two participants were selected, through simple random sampling to conclude the final five (Participants 1, 5, 10, 13 and 14).

The use of simple random sampling resulted in a skewed distribution of experience as a QToD-P and did not match the distribution found in the wider sample of those who completed the questionnaires. Similarly, Ed.Auds. were

also more highly represented in the sample of five (40%) than in the wider sample (15%); a stratified random sampling method would have led to a more representative sample.

It was stipulated that the participants must be QToD who were working within a peripatetic role within an English local authority during the time period of March to July 2020. QToD-P have a distinctive job role and limiting participants in this way enabled comparisons within the job role to be drawn; QToDs who were working in a resource base or specialist provision were not eligible to participate.

3.6. Data analysis

The twenty completed questionnaires yielded both quantitative and qualitative data. Questions that provided quantitative data were examined and compared through frequency distribution and are discussed in Chapter 4. These comparisons were then subsequently used to inform qualitative data analysis.

It was vital to the integrity of the data analysis that a rigorous and methodical approach to coding and thematic analysis was used to ensure that the results were meaningful (Nowell et al., 2017). Qualitative data from both the questionnaires and interviews was analysed inductively and coded according to emerging themes using nVivo12 as this supported an organised and structured approach to the analysis. These emerging themes or ‘nodes’ were coded further to create ‘sub-nodes’ (Appendix VI). ‘Relationships’ between ‘sub-nodes’ were created where relevant. Nodes were also examined using the word frequency query and visualisation functions to determine if any themes had been missed or indeed to highlight areas that had a greater amount of emphasis placed on them than necessary.

Due to the nature of the research for an MA dissertation, the data was coded and the themes identified by the sole researcher.

3.7. Reflexivity

As a QToD-P, I must acknowledge my 'insider' bias, as being 'culturally embedded' (McNess, 2013, p.295) within the subject matter and recognise that an unconscious bias may exist that influences both the research design and interpretation (Diefenbach, 2008). Furthermore, my status as an Ed.Aud. influenced the construct of my sample; I have a wide number of personal contacts with Ed.Auds. This may also influence my bias when analysing data.

I adopted an open identity, in which my status as a QToD-P and Ed.Aud. was identified and shared in both Phase 1 and Phase 2. By doing so I hoped to elicit a shared language which enabled a reciprocity of conversation in order to gain a more informed story.

3.8. Conclusion

Restrictions created by Covid-19 were a significant factor in choosing data collection methods. Ethics approval was granted for the use of an online survey using Jisc as well as semi-structured interviews completing using a virtual platform. Using nVivo12, emerging themes were identified using thematic analysis.

4.0. Results and discussion of results

Lockdown 1 presented unprecedented challenges to QToD-P. To ensure support for CYP-D and their families they adopted a variety of pedagogical changes whilst ensuring that relationships were initiated, developed and maintained with CYP-D, parents/caregivers, school-based staff and the wider professional team.

This research set out to investigate:

1) What impact has Covid-19 had on the working practices of QToD-Ps?
2) What impact has Covid-19 had on the inter-professional collaboration of QToD-Ps?
3) What impact has Covid-19 had on relationships between QToD-Ps, CYP-D and their families?

The results from this study highlight the importance that QToD-P placed on relationships to support their ability to be an 'agent of change' (DfE, 2018, p.15).

Using the qualitative data set, emerging themes were identified and consequently coded using nVivo12. Similarly, the quantitative data set was used to triangulate and add rigidity by ensuring that both the qualitative and quantitative data concurred, or indeed to highlight where it did not. The data corpus was used to determine the primary themes:

- adapting pedagogy through technology;
- adapting pedagogy through relationship development.

This chapter will discuss how technology, and more specifically the use of virtual platforms were adopted for the purposes of communication, teaching and training. I will then discuss how technology both created and developed pedagogical change along with changing relationship dynamics and highlighting the importance of learning from a coaching model to further embed and develop family-centred practice.

4.1. Background of participants

All participants were asked to describe their job role, length of time in their current job role as well as length of time being qualified as a QToD-P. They were also asked to voluntarily identify the authority by which they are employed as well as the age of CYP-D with which they worked. Local authority and age of CYP-D on caseload were the only identifiable factor that contributed to participants' differing experiences. Varying approaches regarding the use of technology with CYP-D and their families across different authorities created differing responses; those participants with restricted access to technology reported more difficulties than those that did not. Similarly, those participants who identified as having an early-years case load also demonstrated a more negative experience with regards to how well they felt adaptations to pedagogy were able to deliver continuity of service. Three participants were also Ed.Auds. however, this did not appear to skew their experiences of audiological opportunities and challenges; all three Ed.Auds. also maintain a peripatetic caseload of children who they see in their dual role as a QToD-P.

4.2. Adapting pedagogy: technology

4.2.1. Challenges with technology

Initially, access to different platforms did cause some difficulties for continuity of service provision. Not only did this require access to suitable technology for the QToD-P but also for the people with whom any teaching or meetings were going to take place with.

> *"There were difficulties in setting up meetings with other services. Although in some instances this was overcome eventually. Audiology for example had no access to MS Teams initially – this has now been set up."*
>
> Participant 15 (QToD for more than 10 years, Ed.Aud., caseload aged 3-16 years)

Additionally, the lack of face-to-face contact was seen as a negative for those for whom lip-reading is a key component of communication for both QToD-P and for the CYP-D.

> *"Communicating by phone/video call isn't easy for me, so text or email work better but they aren't the quickest ways to communicate or access information which has caused issues."*
>
> Participant 19 (QToD for less than one year, caseload aged 0-19 years)

> *"Having to teach virtually was very limiting due to accessing through listening alone."*
>
> Participant 11 (QToD for more than 10 years, caseload aged 5-16 years)

The experiences of participants concur with the findings presented to the Education Select Committee by BATOD (2020b) and highlight the potential

differential impact on CYP-D of learning solely through a virtual platform. In addition, the role of the QToD-P in ensuring they 'make maximum impact on practice' (DfE, 2018, p.14) is emphasised; it is essential that they are trained to enable the upskilling on mainstream teachers to improve accessibility.

4.2.2. Adoption of technology for communication

The closing of school to most children meant that QToD-P were required to rapidly acquire skills that related not just to the use of virtual platforms but also to delivery of learning content to CYP-D through remote means and as such they were required to demonstrate pedagogic agility (Kidd, 2020a). For some individuals this 'push' has created new ways of thinking, perhaps pushing them beyond their previous comfort zone and creating positive, new ways of working and aligns with Garberoglio et al.'s (2012) assertion that digital competence and flexibility was required.

> *"We have all had to cope with the increasing reliance on computer technology, some of us were happy to converse on the telephone and have been pushed to learn how to use video conferencing platforms which despite being out of my comfort zone has been a positive impact on the ways we have had to adapt our working practices […]. I think lockdown has made everybody […] far more computer literate and, you know, try out the alternatives."*
>
> Participant 5 (QToD for more than 10 years, Ed.Aud., caseload aged 0-19 years)

4.2.3. Adoption of virtual platforms for training professionals

Training of mainstream staff in deaf awareness continued but moved to delivery via virtual platforms. It was considered that the quality of these training sessions improved as people learnt how to use the technology better and as

access to different platforms became more widely available which contrasts with Kaiser & König's (2019) assertion that teacher competencies are 'context-specific'.

It has also been noted that larger numbers of staff were able to attend staff training because of the removal of distance / time travel barriers that face-to-face training usually presents.

> *"Training via video has been really popular and easier to organise for larger numbers of staff."*
>
> Participant 1 (QToD for 2-5 years, caseload aged 0-11 years)

Despite these benefits, participants expressed concern that online training session had a reduced impact than when compared with face-to-face training and suggests the need for training to improve the efficiency for online situations (Jain et al., 2020). All participants mentioned the inability of being able to see people face-to-face as being a strong negative factor in this despite there being evidence from other professions to suggest that lack of face-to-face contact need not be detrimental (Berry et al., 2011; McCarthy et al., 2021) and suggests that QToD-P would benefit from training that supports the development of a strong working alliance when using virtual platforms.

> *"Not being face to face with people impacts severely on the quality of interactions and their lasting impact."*
>
> Participant 17 (QToD for more than 10 years, caseload aged 3-16 years)

> *"It's very difficult as a presenter actually delivering a course when most people's videos are turned off and everyone's muted. And you just don't*

get that feedback. And then, of course, everything you're delivering is very 2D."

Participant 5 (QToD for more than 10 years, Ed.Aud., caseload of aged 0-19 years)

This finding also suggests that QToD-P could learn from Redmond et al.'s (2018) five-dimensional touchpoint model, even though it is conceptualised for use within Higher Education. Such an approach may support not just the traditional aspects of learning that are desired to be conveyed during an on-line training session (cognitive, collaborative and behavioural engagement), but also by developing the social and emotional dimensions of interaction to develop a greater alliance.

4.2.4. Adoption of virtual platforms for working with parents

Similar opportunities and challenges were reflected when working with parents across virtual platforms. The challenges that were identified related to lack of hands-on experience of equipment for parents and difficulties with troubleshooting audiology equipment for QToD-P.

"Very difficult to troubleshoot and support parents remotely. It's much easier to test things face to face and hands on."

Participant 1 (QToD for 2-5 years, caseload 0-11 years)

"The main tasks of checking audiological equipment, troubleshooting and supporting their access to learning just were impossible to do."

Participant 19 (QToD for less than one year, caseload aged 0-19 years)

The difficulty of carrying out audiology tasks was further highlighted from the questionnaire data set and are summarized in Figure 2. During the school

closures no QToD-P reported being able to attend audiology clinics. The ability to troubleshoot and checking equipment reduced by 50 percentage points and 65 percentage points for working with assistive listening devices and personal listening devices respectively. There was a higher level of continuity however for training school staff with regards to audiology equipment with a reduction of 40 percentage points.

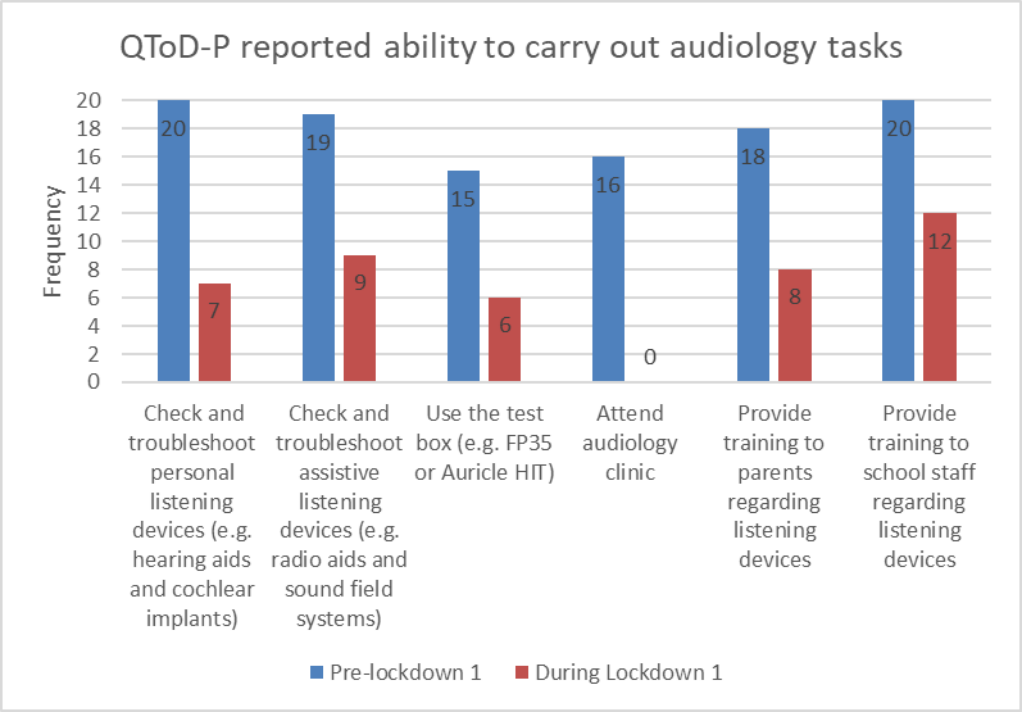

Figure 2: Changes to ability to carry out audiological tasks during Lockdown 1 compared to pre-lockdown 1.

Furthermore, half of QToD-P reported that they were able to continue to provide parents with training relating to listening devices. Indeed, where families had good access to technology and resources (such a parents/carers that were able to participate) coaching of families was able to take place. However, for those without these resources it was felt that these families had a lower quality of support from the QToD-P despite the fact that participants of this study as well as members of BATOD (2020a) reported conducting door-step visits with the aim of supporting technology. Audiology related tasks may have been further supported perhaps by adopting the approach of McColgan (2021) whereby care

and troubleshooting packs along with instruction were delivered to the homes of parents/caregivers of CYP-D which not only supports parents/caregivers but also leads to a growing level of independence which will enable them to provide greater ongoing support for their child in the future.

> *"Felt there was a big discrepancy for those families who didn't have the technology/those on lower incomes".*
>
> Participant 12 (QToD for more than 10 years, caseload aged 0-11 years)

However, where successes were celebrated by participants it was noted that they had adopted a coaching model that aimed at empowering parents/caregivers to be more independent in supporting their CYP-D. This finding therefore supports the discussion regarding the use of coaching to develop relationships and support learning in the same way as it does for professionals.

> *"For children on my caseload there had to be a change to more of a coaching model with parents rather than direct teaching of children."*
> Participant 7 (QToD for 5-10 years, 0-16 years)

Coaching of parents was particularly noted in relation to supporting and maintaining the use of listening equipment; parents were more empowered to learn about and take on responsibility for personal and assistive listening devices.

> *"Some families have become more independent, for example, they now ask for tubing and can do this themselves."*
>
> Participant 14 (QToD for more than 10 years, caseload aged 0-16 years)

"This gave more opportunities to coach parents on how to troubleshoot problems with hearing aids and assistive listening devices, retubing and connecting to other equipment which increased positive outcomes for CYP-D."

Participant 7 (QToD for 5-10 years, caseload 0-16 years)

"Again, it was difficult because you couldn't necessarily hear the sort of clarity through hearing aids, through listening tests. You relied heavily on parental feedback. Sometimes they didn't know what they were listening for. However, again, that was a positive because passing the reins over to them and they were saying, it sounds fine, or it sounds a bit crackly […] that generated a lot more discussions and perhaps I think people are a bit more hesitant to kind of approach."

Participant 10 (QT0D for 2-5 years, caseload 0-19 years & college students with additional/complex needs)

Further to this, the coaching model was seen as beneficial as it improved the ability to be more of an observer.

"So, it was much more of an observer view […] it was good because it meant […] a license be offering a critique, whereas previously it was very awkward. And you didn't want to sort of diminish anybody's confidence and certainly don't want to affect your relationships […] people were far more receptive to feedback and wanted to be able to do it."

Participant 10 (QT0D for 2-5 years, caseload 0-19 years & college students with additional/complex needs)

The role of the observer in this instance is similar to that noted by Wainer & Ingersoll (2015) in which successful coaching was provided for parents/caregivers of children with an autistic spectrum condition. Crucially,

they noted the importance of a relationship that engenders collaboration and this was achieved through virtual platforms. It may be argued therefore that QToD-P did adapt to these new ways of working on virtual platforms and demonstrated that their skills are not context specific (König et al., 2020). However, a QToD-P may be able to engender a greater impact with specific pedagogical training (Jain et al., 2020) that enables them to confidently and quicky develop online relationships and coach effectively rather than simply replicating traditional ways of working online (Hattie, 2020).

4.2.4. Adoption of virtual platforms for teaching CYP-D

The teaching of CYP-D online has been difficult due to access issues relating to having permission to use video technology, access to appropriate technology but also, access issues of being able to use residual hearing effectively and having a clear enough picture for lip reading. The difficulties faced by CYP-D in accessing their online learning is of great concern as this may contribute to a potential widening of the achievement gap (BATOD, 2020a) especially if we accept that König et al.'s (2020) assertion that teaching skills are context specific. Even though Lockdown 1 was unprecedented it does highlight the importance of the role of the QToD-P in working alongside CYP-D and their parents/caregivers to further develop their skills in learning how to access for themselves. In addition, it is vital that training of mainstream staff is developed to ensure an understanding of the importance of indirect language learning (Stack Whitney & Whitney, 2021), gesturing, (Stenhoff et al., 2020) and social learning (König et al., 2020) so that they can adapt any future online delivery to better suit the needs of all CYP but especially CYP-D.

"Direct teaching has been difficult online as our students had to face unprecedented barriers, such as lack of appropriate technology - laptop/iPad etc., reliability of internet connections, unclear pictures for lip reading, etc."

Participant 10 (QT0D for 2-5 years, 0-19 years & college students with additional/complex needs)

Table 1 summarises the percentage point change in ability to carry out various teaching tasks during Lockdown 1. The ability to carry out both language and listening assessments were significantly impacted during the lockdown period with only six QToD-P reporting being able to continue with language assessments and three with listening assessments. Whilst half of participants reported being able to continue with teaching CYP-D directly only 40 percent were able to support CYP-D in learning how to access their learning for themselves (self-advocacy).

	Percentage point change
Direct teaching to CYP-D	-50
Support CYP-D with their personal understanding of deafness (P.U.D.)	-60
Supporting CYP-D with accessing their learning	-30
Supporting CYP-D to learn how to access their learning	-60
Language assessments	-70
Listening assessments	-85

Table 1: Change to ability to carry out teaching tasks during Lockdown 1 compared to pre-lockdown 1.

There was a significant shift from teaching CYP-D directly to providing support for the mainstream teacher; time and resources were put into ensuring that the mainstream teacher was sending home resources that were accessible to CYP-D or that parents were supported with the resources that had already been sent

home, which may account for BATOD's (2020a) assertion that CYP-D had limited support from QToD-P during the Lockdown 1 period.

> *"The primary focus was ensuring that children could access their remote learning."*
>
> Participant 4 (QToD for 5-10 years, caseload 5-19 years)

This could be easily attributed to the initial crisis management nature of the situation however, it does again highlight the importance of QToD-P working as 'agents of change' (DfE, 2018, p.15) but also the importance of their professional relationships with school staff to ensure that support was available. Additionally, the importance of re-establishing positive relationships and attachment between the QToD-P and each individual CYP-D must not be overlooked to ensure ongoing engagement and participation (O'Connor & McCartney, 2007). It also highlights the importance of the QToD-P in training mainstream staff and aligns with Salter et al.'s (2017) assertion that the impact of deafness is not always fully recognised by the mainstream teacher.

4.3. Changing pedagogy: relationship development

4.3.1. Changes to working relationships

Quantitative data, summarised in Figure 3, suggested that there was no significant change to the perceived quality of working relationships over the period of school closures. The median score for working relationships with wider professionals, school staff and parents was 'good' both before and during lockdown. However, the qualitative data did somewhat contradict this.

For relationships with parents, six more participants rated their relationships as good after the period, however four fewer participants rated relationships as brilliant. As such, overall, the quality of relationships did not change significantly.

The quality of relationships with wider professionals remained widely static. However, relationship quality with school-based staff did reduce, with 40 percent of participants rating relationships as 'OK' or 'not great' afterwards compared with only 5 percent before.

However, the ability to continue working relationships varied according to the setting and the people involved as summarised in Table 2. Most significant was the reduction in the ability of QToD-P to support parents in the home. This is likely to have a significant impact on those CYP-D in the early years and new referrals.

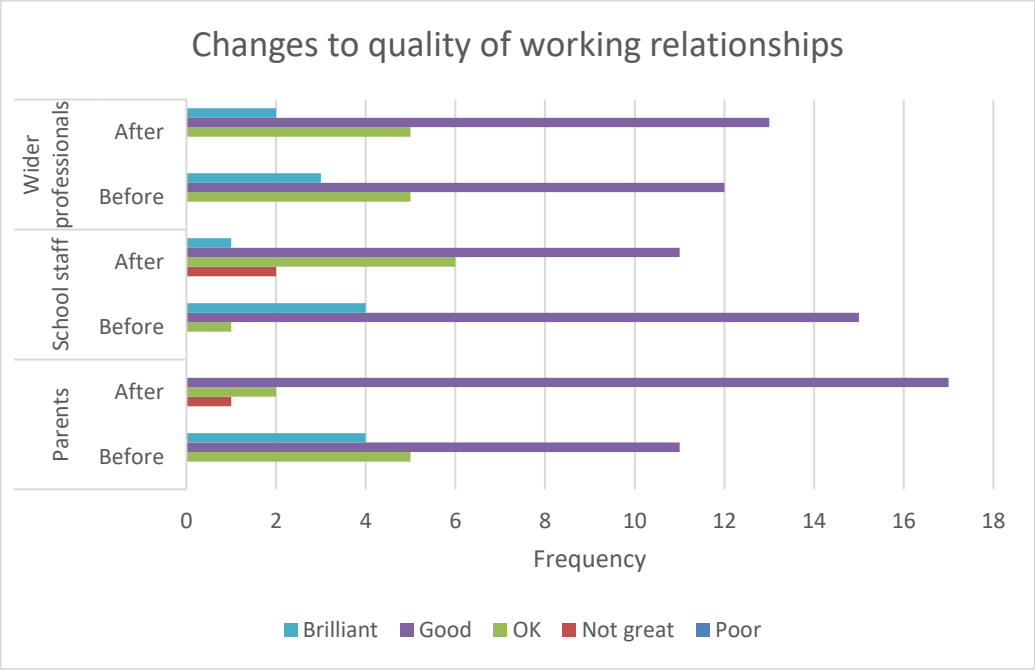

Figure 3: Changes to the quality of working relationships

	Percentage point change
Supporting parents in the home	-55
Liaising between home and school	-20
Coaching school staff (e.g. deaf awareness training, differentiation, accessible learning)	-35
Regular conversations with school staff	-45
Regular conversations with parents	-15
Liaising with other professionals	-15
Supporting new referrals	-25
Supporting transition	-20

Table 2: Change to ability to carry out support, coaching and liaising tasks during Lockdown 1 compared to pre-lockdown 1.

4.3.2. Maintaining relationships with families

Qualitative data relating to relationships with family members did somewhat contradict the quantitative data set. Contact with families was in many instances reported to have improved, by being more frequent and developing stronger relationships which were reported to result in positive outcomes for CYP-D, most notably for school-aged children where the relationships often shift significantly from the parents/carers to school-based staff and the wider professional team. This aligns with Gouëdard et al.'s (2020) research suggesting that the situation provided an opportunity for schools (QToD-P in this situation) and homes to align more closely.

It is important to note the level of enthusiasm that the participants of this study gave to the increased level of parents/caregivers contact and the ensuing strengthening of relationships; CYP-D exist within an ecological system

(Swanwick, 2014) which by definition encompasses a variety of people and contexts. As such, continuity of a strong relationship with parents/caregivers throughout the school years can continue to engender change and support positive outcomes for CYP-D. It should then be questioned as to how it can be ensured that this positive, holistic and person-centred pedagogical shift can be embedded within professional practice to ensure it can continue in the long term.

> *"The contact with parents increased building stronger relationships and supporting them to support their children at home to access their learning. For some of the older children on caseload there was very little contact with parents, usually via email and the visit record being sent to them after a school visit, however since lockdown there has been closer working and liaison."*
> Participant 5 (QToD for more than 10 years, Ed.Aud., caseload aged 0-19 years)

> *"It was about the families. So, it's a shift while the child is still your focus."*
> Participant 13 (QToD for 2-5 years, caseload 5-19 years)

> *"parents were contacted who had not seen our team for years as their children were in school."*
> Participant 14 (QToD for more than 10 years, caseload aged 0-16 years)

4.3.3. Developing and deepening relationships with parents

Innovative visits, whereby QToD-P visited families on the 'doorstep' and engaged with parents and CYP-D in their gardens or yards, enabled some face-to-face visits to continue and this was seen as a positive way to build relationships with families despite not necessarily being crucial to the purpose for which it was intended of teaching CYP-D or troubleshooting equipment.

"The door-step visits were not very productive for much of our job role. They did prove to be invaluable in maintaining relationships with the CYP-D and their parents."

Participant 13 (QToD for 2-5 years, caseload 5-19 years)

"After carrying out doorstep visits in the first lockdown I think working relationships are easier".

Participant 20 (QToD for more than 10 years, caseload aged 5-19 years)

Additionally, one example of innovative pedagogy has led to parents being able to attend a school visit virtually and can be seen to enhance parental knowledge and coaching.

"Can 'visit' children in schools with their parent there as they can come on a video call. Lots of advantages to this."

Participant 14 (QToD for more than 10 years, caseload aged 0-16 years)

4.3.4. Maintaining relationships with families – a differential impact

Similarly to BATOD's (2020a) report it was felt by participants that increased contact and improved positive outcomes was far from universal; families who use English as an additional language, or those who did not have good access to technology were differentially impacted by the nature of communication during this time.

"But when you're there in person, you've got all that, the body language, the gesture, the modelling. You've got all of those resources to work with […] I don't feel like I'm providing the service that I should provide to those families."

Participant 1 (QToD for 2-5 years, caseload aged 0-11 years)

"I felt there was a big discrepancy for those families who didn't have the technology/those on lower incomes."

Participant 12 (QToD for more than 10 years, aged 0-11 years)

However, door-step visits were particularly noted by one participant as being valuable for families who use English as an additional language, not just to make connections but also to harness the language skills of siblings to drive forward the progress of the CYP-D and highlights that QToD-P not only demonstrated pedagogical agility (Kidd, 2020b) but also demonstrated self-efficacy (Bandura, 1997).

"But by making those doorstep visits, the connections are a little bit more there. And it's easier for them to talk about things like having ideas about what level of hearing they are, you know, about the kinds of language that might go on with brothers and sisters in the family. Those sorts of questions are easier now than they were before lockdown."

Participant 13 (QToD for 2-5 years, caseload 5-19 years)

4.3.5. Development of new relationships with parents

Covid-19 caused some disruption to audiological services and as a result of this there was a cohort of babies who had incomplete screening or diagnostic testing as part of the NHSP protocol (BAA, 2020). Consequently, participants

reported very few new referrals coming to their services during that time. However, when new referrals did occur there was a general consensus that those families received a lower level of support than if they had been able to meet face-to-face. This is of great concern when considered alongside the BAA's rapid review (2020) which highlights that hearing screening is of little benefit when it is not followed up with coherent multi-disciplinary child and family support.

As well as this, there was concern voiced about the developing relationships with families which was more challenging due to the use of remote methods than it would be face-to face.

> *"Did not meet new referrals. For some families doing this online has been fine but for others this is more challenging and the relationships have not been built."*
>
> Participant 14 (QToD for more than 10 years, caseload aged 0-16 years)

> *"Although I like to feel I was empathetic it is very difficult when you don't know somebody to try and build up a relationship. So, I actually dropped off the Monitoring Protocol at their doorstep while they happened to be in […] that made a big difference really to building that relationship."*
>
> Participant 5 (QToD for more than 10 years, Ed.Aud., caseload 0-19 years)

These perceived issues concur with my earlier point regarding the importance of developing collaborative relationships as engendered in the mandatory qualifications (DfE, 2018) as well as the Children & Families Act (2014) and conceptualised by Swanick's (2014) adoption of an ecological systems framework. Crucially, it is the skills that are embedded within a coaching

approach (Passmore et al., 2012) that may enable the QToD-P to adopt transformative paradigmatic change; by helping parent/caregivers to learn, rather than teaching them, they are able to develop self-efficacy and self-advocacy more easily than when they are 'taught', and as a result may be more able to cope in changing situations.

4.3.6. Relationships with school staff

Data from the survey suggests that there was a decrease in the quality of relationships with school-based staff (Figure 3). Before Lockdown 1, 19 out of twenty participants reported that these relationships were 'good' or 'brilliant'. After Lockdown 1, this figure had decreased to 12 out of 20. However, despite this significant reduction in reported relationship quality, thematic analysis identified a reality that was a little more nuanced.

Some participants were able to report improved relationships with school-based staff as well as being able to continue to support them in different ways which facilitated an improvement in identifying issues more quickly.

Additionally, reflective pedagogy to enhance engagement has seen a greater use of explanation of the importance and reasons behind intervention programmes.

> *"Maybe describing more why we do something. I think that's been something that's been really important component of this, describing the reasons behind sort of writing specific programs, things like that, have been really useful. Because in a way, you've kind of had to justify your actions when you're online because you're not able to model it there and then and I think that means that people have been far more receptive."*
>
> Participant 10 (QToD for 2-5 years, caseload 0-19 years & college students with additional/complex needs)

Conversely, others reported a greater difficulty with maintaining contact with schools, or schools at that time being unable to act on advice that had been provided. This consequently impacted upon the 'teaching' support that they were able to offer.

> *"I can say that a few schools didn't take that advice on board. A lot of children were sort of left to flounder. So, in terms of outcomes, well, I don't think they made the same progress."*
>
> Participant 1 (QToD for 2-5 years, caseload aged 0-11 years)

4.3.7. Relationships with the wider professional team

There was a very small change to the reported quality of relationships with the wider professional team (Figure 3), however overall, 15 out of 20 participants reported their relationships to be 'good' or 'brilliant', both before and after Lockdown 1.

Some participants reported improved multi-disciplinary working as it was easier to attend meetings virtually, which reduced the time commitment of travel. There was also a feeling of professionals' supporting each other more.

> *"There was a much greater attendance of online meetings by Educational Psychologists due to lack of travelling time etc. and since then, communication has improved."*
>
> Participant 10 (QToD for 2-5 years, 0-19 years & college students with additional/complex needs)

However, others reported that lack of access to the same virtual platforms hindered this development. Similarly, redeployment of professionals created difficulties.

> *"Some colleagues from NHS (speech and language therapy and audiology) redeployed making effective liaison / joined up support more difficult."*
>
> Participant 8 (QToD for more than 10 years, caseload aged 0-16 years)

It was reported that there was a reduced ability to work with all members of the wider team which varied, but not significantly, according to the role that team member played for example, speech and language therapist, social worker or educational psychologist.

These findings suggest that key pedagogical lessons can be learnt: a greater openness and better liaison as well as increased contact-ability are all positive outcomes which may benefit from further exploration.

4.4. The place of the child

The place of the child as the central figure in their support and provision is reported to have transitioned to a focus on supporting those people who themselves supported the CYP-D. Indeed, it was reported that the voice of the child was at times absent with a move away from holistic support to task focused support.

> *"I guess we were trying to support everybody to support the child".*
>
> Participant 5 (QToD for more than 10 years, Ed. Aud., caseload aged 0-19 years)

> *"I think the voice of the child a lot of the time was absent because people were panicking about what they wanted to deliver. And I don't think there was a lot of consultation around what the child wanted."*
>
> Participant 1 (QToD for 2-5 years, caseload aged 0-11 years)

This shift, whilst pragmatic in an emerging situation needs to be considered to ensure that CYP-D are repositioned, and remain, central to their own support and provision. Contextual factors need to be investigated further to determine how to reposition children at the centre of their provision and by doing so make them less vulnerable to the widening attainment gap (BATOD, 2020a) and to ensure that person-centred care is embedded within their provision as highlighted in the Children and Families Act (2014).

4.5. Summary

This research set out to investigate three principal questions:

1) What impact has Covid-19 had on the working practices of QToD-Ps?
2) What impact has Covid-19 had on the inter-professional collaboration of QToD-Ps?
3) What impact has Covid-19 had on relationships between QToD-Ps, CYP-D and their families?

QToD-P demonstrated significant flexibility and adaptability in working practices. Most significant was the move to using virtual platforms to teach, train and coach. The key theme that was evident when considering both working practices and relationships between QToD-Ps, CYP-D and their parents/caregivers as well as other professionals (including school-based staff) was the importance of upskilling through coaching with the aim of greater independence and advocacy. Further to this, greater openness and liaison was

felt to be an important factor in maintaining and developing professional relationships.

Crucially, the changing pedagogical landscape was viewed as becoming less reactive and more deliberate over time (Ellis et al., 2020) as pedagogical change has started to become embedded into everyday practice.

> *"It's like, in the first lockdown we learnt to hold our breath and now we are starting to exhale."*
>
> Participant 14 (QToD for more than 10 years, caseload aged 0-16 years)

4.6. Limitations

The scale of this study was small and so drawing generalisations should be noted with caution. The data was obtained from a voluntary sample of QToD-P and as a consequence there may be a data gap from those that the study did not reach or that did not volunteer. Furthermore, Ed.Auds. were overly represented in participants who were interviewed and stratified random sampling may have led to a sample that was more representative.

4.7. Further study

Due to the unfolding nature of Covid-19, very little research has been done on the impacts on CYP-D and their families. Research to give 'voice' to CYP-D during Lockdown 1 is important to ensure that lessons can be learnt for future person-centred care.

Furthermore, an outcome measured study which examines the impact of training to develop strong working relationships through the use coaching skills through virtual platforms may add to the body of literature that demonstrates that QToD-P add value to the outcomes of CYP-D and their parents/caregivers.

In addition, an accessible digital policy that overrides local authority and school policies should be investigated to enable a greater equality of access to CYP-D as well as deaf QToD-P in the future. Such a policy should include holistic, collaborative training of school-based staff and QToD-P to ensure that CYP-D are not differentially disadvantaged by any online learning in the future.

5.0. Conclusion

This research project has investigated the impact of Lockdown 1 on the working practices of QToD-P as well as their working relationships with CYP-D, their parents/caregivers, school-based staff and the wider-professional team.

The increased reliance on technology, mainly virtual platforms, created a paradigmatic shift in the working practices of QToD-P. Technology was used as a means to communicate, teach, coach and train. However, despite some advantages to this technology such as increased contact and relationship development with parents/caregivers as well as their growing independence with audiology skills resulting from a move towards coaching, these advantages were not universal. Families with fewer resources and those who use English as an additional language, as well as families of new referrals were felt to be differentially impacted, although innovative pedagogy such as doorstep visits attempted to ameliorate these impacts. Relationship changes with other professionals were very much context specific. Crucially, CYP-D were somewhat ‘side-lined’ with less direct input from their QToD-P as support shifted to working around the CYP-D rather than with them.

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Appendix I - Ethics approval

SOCIAL SCIENCES, ARTS AND HUMANITIES ECDA
ETHICS APPROVAL NOTIFICATION

TO Sarah Davis

CC Joy Rosenberg

FROM Dr Brendan Larvor, Social Sciences, Arts and Humanities ECDA Vice-Chair

DATE 19/10/2020

Protocol number: **EDU/PGT/CP/04805**

Title of study: The impact of Covid-19 on the working practices of Teachers of the Deaf

Your application for ethics approval has been accepted and approved with the following conditions by the ECDA for your School and includes work undertaken for this study by the named additional workers below:
no additional workers named

Chair's instructions:

Please note that the use of survey tools such as Google Docs, Google Forms and SurveyMonkey are not acceptable for reasons of data privacy. The University has a subscription to Online Surveys which is managed by HR Learning and Organisational Development. Please contact (or have your supervisor contact): dev-email@herts.ac.uk who will provide the necessary log-in details. Please see the following Ethics FAQ for further advice:

https://www.studynet2.herts.ac.uk/ptl/common/ethics.nsf/Frequently+Asked+Questions/B8C3196F1E5BF9BB8025837F003E58C3

It is not necessary to use forms EC3 and EC6 for the survey provided the first page of the survey contains relevant information for participants. However, for the interviews, forms EC3 and EC6 will be necessary.

General conditions of approval:

Ethics approval has been granted subject to the standard conditions below:

Permissions: Any necessary permissions for the use of premises/location and accessing participants for your study must be obtained in writing prior to any data collection commencing. Failure to obtain adequate permissions may be considered a breach of this protocol.

External communications: Ensure you quote the UH protocol number and the name of the approving Committee on all paperwork, including recruitment advertisements/online requests, for this study.

Invasive procedures: If your research involves invasive procedures you are required to complete and submit an EC7 Protocol Monitoring Form, and copies of your completed consent paperwork to this ECDA once your study is complete.

Submission: Students must include this Approval Notification with their submission.

Validity:

This approval is valid:
From: 01/10/2020
To: 30/06/2021

Please note:

Failure to comply with the conditions of approval will be considered a breach of protocol and may result in disciplinary action which could include academic penalties.

Additional documentation requested as a condition of this approval protocol may be submitted via your supervisor to the Ethics Clerks as it becomes available. All documentation relating to this study, including the information/documents noted in the conditions above, must be available for your supervisor at the time of submitting your work so that they are able to confirm that you have complied with this protocol.

Should you amend any aspect of your research or wish to apply for an extension to your study you will need your supervisor's approval (if you are a student) and must complete and submit form EC2.

Approval applies specifically to the research study/methodology and timings as detailed in your Form EC1A. In cases where the amendments to the original study are deemed to be substantial, a new Form EC1A may need to be completed prior to the study being undertaken.

Failure to report adverse circumstance/s may be considered misconduct.

Should adverse circumstances arise during this study such as physical reaction/harm, mental/emotional harm, intrusion of privacy or breach of confidentiality this must be reported to the approving Committee immediately.

Appendix II - Ethics consent form

UNIVERSITY OF HERTFORDSHIRE
ETHICS COMMITTEE FOR STUDIES INVOLVING THE USE OF HUMAN PARTICIPANTS ('ETHICS COMMITTEE')

FORM EC3
CONSENT FORM FOR STUDIES INVOLVING HUMAN PARTICIPANTS

I, the undersigned *[please give your name here*, *in BLOCK CAPITALS]*

…….
of [*please give contact details here, sufficient to enable the investigator to get in touch with you, such as a postal or email address]*

…..……
hereby freely agree to take part in the study entitled *[insert name of stu*dy *here]*

The impact of Covid-19 on the working practices of Teachers of the Deaf during 'Lockdown 1' (UH Protocol number EDU/PGT/CP/0480515)

1 I confirm that I have been given a Participant Information Sheet (a copy of which is attached to this form) giving particulars of the study, including its aim(s), methods and design, the names and contact details of key people and, as appropriate, the risks and potential benefits, how the information collected will be stored and for how long, and any plans for follow-up studies that might involve further approaches to participants. I have also been informed of how my personal information on this form will be stored and for how long. I have been given details of my involvement in the study. I have been told that in the event of any significant change to the aim(s) or design of the study I will be informed, and asked to renew my consent to participate in it.

2 I have been assured that I may withdraw from the study at any time without disadvantage or having to give a reason.

3 In giving my consent to participate in this study, I understand that voice, video or photo-recording will take place and I have been informed of how/whether this recording will be transmitted/displayed.

4 I have been told how information relating to me (data obtained in the course of the study, and data provided by me about myself) will be handled: how it will be kept secure, who will have access to it, and how it will or may be used, including the possibility of anonymised data being deposited in a repository with open access (freely available).

5 I understand that if there is any revelation of unlawful activity or any indication of non-medical circumstances that would or has put others at risk, the University may refer the matter to the appropriate authorities.

6 I have been told that I may at some time in the future be contacted again in connection with this or another study.

Signature of participant……..…Date……

Signature of (principal) investigator……Date……

Name of (principal) investigator *SARAH DAVIS*

Appendix III - Participant information form

UNIVERSITY OF HERTFORDSHIRE

ETHICS COMMITTEE FOR STUDIES INVOLVING THE USE OF HUMAN PARTICIPANTS
('ETHICS COMMITTEE')

FORM EC6: PARTICIPANT INFORMATION SHEET

1 **Title of study**

The impact of Covid-19 on the working practices of Teachers of the Deaf

2 **Introduction**

You are being invited to take part in a study. Before you decide whether to do so, it is important that you understand the study that is being undertaken and what your involvement will include. Please take the time to read the following information carefully and discuss it with others if you wish.

Do not hesitate to ask me anything that is not clear or for any further information you would like to help you make your decision. Please do take your time to decide whether or not you wish to take part. The University's regulation, UPR RE01, 'Studies Involving the Use of Human Participants' can be accessed via this link:

https://www.herts.ac.uk/about-us/governance/university-policies-and-regulations-uprs/uprs
(after accessing this website, scroll down to Letter S where you will find the regulation)

Thank you for reading this.

3 **What is the purpose of this study?**

This research aims to investigate what impact the 'lockdown' of 2020 had on the working practices of Qualified Peripatetic Teachers of the Deaf.

Where changes to working practices are identified, I will investigate impact of these change on children and young people, as well as on the relationships that are key to effective practice.

4 **Do I have to take part?**

It is completely up to you whether you decide to take part in this study. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a consent form.

Agreeing to join the study does not mean that you have to complete it. You are free to withdraw at any stage without giving a reason.

5 **Are there any age or other restrictions that may prevent me from participating?**

To take part you must be a Qualified Peripatetic / Advisory Teacher of the Deaf who was working in that capacity between March and the current date.

6 **How long will my part in the study take?**

This study has two stages. You may be asked to participate in one or both of these.

The first stage should take no more than one hour.

You may be invited to participate in a follow up session which will also take approximately one hour.

7 **What will happen to me if I take part?**

The first thing to happen will be the completion of a questionnaire. A link to the questionnaire will be emailed to you after you have returned a signed EC3 form.

If you are selected for the follow up section of this study, and you agree to participate, you will take part in an interview over using MS Teams.

8 **What are the possible disadvantages, risks or side effects of taking part?**

The disadvantages to you of participating are that you will commit your time to complete the questionnaire and you may commit further time by participating in an on-line interview.

9 **What are the possible benefits of taking part?**

There are no benefits to you personally of taking part.

10 **How will my taking part in this study be kept confidential?**

Your name and place of work will be anonymized so that you cannot be identified.

11 **Audio-visual material**

If you participate in the on-line interview using MS Teams, a recording of the session will be made. The recording will not be shared with anyone.

12 **What will happen to the data collected within this study?**

- The data collected will be stored electronically, in a password-protected environment, for nine months, after which time it will be destroyed under secure conditions.
- The data will be anonymized prior to storage.
- The data will be not be transmitted/displayed.

13 **Will the data be required for use in further studies?**

The data will not be used in any further studies.

14 Who has reviewed this study?

This study has been reviewed by:
The University of Hertfordshire Social Sciences, Arts and Humanities Ethics Committee with Delegated Authority.

The UH protocol number is EDU/PGT/CP/0480515

15 Factors that might put others at risk

Please note that if, during the study, any medical conditions or non-medical circumstances such as unlawful activity become apparent that might or had put others at risk, the University may refer the matter to the appropriate authorities and, under such circumstances, you will be withdrawn from the study.

16 Who can I contact if I have any questions?

If you would like further information or would like to discuss any details personally, please get in touch with me by email: Sarah Davis, sarahjdavis2002@gmail.com.

Although we hope it is not the case, if you have any complaints or concerns about any aspect of the way you have been approached or treated during the course of this study, please write to the University's Secretary and Registrar at the following address:

Secretary and Registrar
University of Hertfordshire
College Lane
Hatfield
Herts
AL10 9AB

Thank you very much for reading this information and giving consideration to taking part in this study.

Appendix IV - Questionnaire

The impact of Covid-19 on the working practices of Teachers of the Deaf

Background information

Q1a. Which of the following job titles best describes your current role? Please select all that apply. *Required*

Advisory / Peripatetic Teacher of the Deaf
Educational Audiologist
Other

If you selected Other, please specify:
Less than one year

Q1b. How long have you been a Qualified Teacher of the Deaf? *Required*

More than one year but less than two years
More than two years but less than five years
More than five years but less than ten years
More than ten years

Q1c. How long have you worked in your current job role? *Required*

Less than one year
More than one year but less than two years
More than two years but less than five years
More than five years but less than ten years
More than ten years

Q1d. What authority do you work for? This information will not be shared. It helps to compare the experiences of other Qualified Teachers of the Deaf who work in the same authority and complete this questionnaire. You do not need to write anything for this question.

Q1e. What is the age range of children currently on your caseload? * Please select all that apply. If selecting 'other' please provide more information. *Required*
If you selected Other, please specify:

Early years (0 - 3 years)
Pre - school (3 - 5 years)
Primary school (5 - 11 years)
Secondary school (11 - 16 years)
School sixth form (16-19 years)
College (16 - 19 years)
Other

Audiology tasks

Q2. What audiology tasks do you regularly complete as part of your role?

	Before March 2020	March - July 2020
Check and troubleshoot personal listening devices (e.g. hearing aids and cochlear implants)		
Check and troubleshoot assistive listening devices (e.g. radio aids and sound field systems)		
Use the test box (e.g. FP35 or Auricle HIT)		
Attend audiology clinic		
Provide training to parents regarding listening devices		
Provide training to school staff regarding listening devices		
Other		

Q2a. If you selected 'other' for Q2, please list the tasks here.

Q2b. Thinking about the changes to your ability to carry out audiological tasks between March and July 2020. Do you think this has: *Required*

Increased positive outcomes for CYP-D
Decreased positive outcomes for CYP-D
In some respects, both increased and decreased positive outcomes for CYP-D
Not applicable. There was no change in my ability to complete these tasks
Other

If you selected Other, please specify:

Q2c. Please provide more information that helps explain your answer to Q2b.

Teaching tasks

Q3. What teaching tasks do you regularly complete as part of your role?

	Before March 2020	March - July 2020
Direct teaching to CYP-D		
Support CYP-D with their personal understanding of deafness (P.U.D.)		
Supporting CYP-D with accessing their learning		
Supporting CYP-D to learn how to access their learning		
Language assessments		
Listening assessments		
Other		

Q3a. If you selected 'other' for Q3, please list the tasks here.

Q3b. Thinking about the changes to your ability to carry out teaching tasks between March and July 2020. Do you think this has:

Increased positive outcomes for CYP-D
Decreased positive outcomes for CYP-D

In some respects, both increased and decreased positive outcomes for CYP-D
Not applicable. There was no change in my ability to complete these tasks
Other

If you selected Other, please specify:

Q3c. Please provide more information that helps explain your answer to Q3b.

Training, coaching, liaising and multidisciplinary tasks

Q4. What training, coaching, liaising and multidisciplinary work do you do as part of your role?

	Before March 2020	March - July 2020
Supporting parents in the home		
Liaising between home and school		
Coaching school staff (e.g. deaf awareness training, differentiation, accessible learning)		
Regular conversations with school staff		
Regular conversations with parents		
Liaising with other professionals		
Supporting new referrals		
Supporting transition		
Attending EHCP meetings		
Attend CHSWG meetings		
Other		

Q4a. If you selected 'other' for Q4, please list the tasks here.

Q4b. Thinking about the changes to your ability to carry out coaching, training and liaising tasks between March and July 2020. Do you think this has:

Increased positive outcomes for CYP-D
Decreased positive outcomes for CYP-D
In some respects, both increased and decreased positive outcomes for CYP-D
Not applicable. There was no change in my ability to complete these tasks
Other

If you selected Other, please specify:

Q4c. Please provide more information that helps explain your answer to Q4b.

Multi-disciplinary working

Q5. Which professionals in the wider multidisciplinary team do you regularly work with as part of your role?

	Before March 2020	March - July 2020
Speech and language therapists		
Audiologists		
Educational psychologists		
Paediatricians		

Implant centre		
Staff at specialist provisions (e.g. schools for the deaf or bases / units within mainstream schools)		
Mainstream school staff		
Ear, nose and throat department staff		
Social workers		
Wider social care workers		
Neo-natal screeners		
Other		

Q5a. If you selected 'other' for Q5, please list the other professionals here.

Q5b. Thinking about the changes to your ability to participate in a multidisciplinary team between March and July 2020. Do you think this has:

Increased positive outcomes for CYP-D
Decreased positive outcomes for CYP-D
In some respects, both increased and decreased positive outcomes for CYP-D
Not applicable. There was no change in my ability to complete these tasks
Other

If you selected Other, please specify:

Q5c. Please provide more information that helps explain your answer to Q5b.

Working relationships

Q6. Thinking in general terms, how would you rate your working relationships with the parents / carers of CYP-D on your caseload? □ *Required*

	Before March 2020	March - July 2020
Poor		
Not great		
OK		
Good		
Brilliant		

Q6a. Can you add any information that helps explain your answer to Q7?

Q7. Thinking in general terms, how would you rate your working relationships with school based staff of CYP-D on your caseload? □ *Required*

	Before March 2020	March - July 2020
Poor		
Not great		
OK		
Good		
Brilliant		

Q7a. Can you add any information that helps explain your answer to Q7?

Q8. Thinking in general terms, how would you rate your working relationships with other professionals involved with CYP-D on your caseload? □ *Required*

	Before March 2020	March - July 2020
Poor		
Not great		
OK		
Good		
Brilliant		

Q8a. Can you add any information that helps explain your answer to Q8?

Anthing else?

Q10. Is there anything else that you would like to add?

Are you willing to participate in an online interview to discuss your answers further?

Contact details

Thank you
Thank you for the time that you have taken to complete this questionnaire.
It is much appreciated.
Please select 'finish' to submit your answers.

Appendix V - Semi structured interview schedule

Starting the interview

Can you tell me a little bit about your job and responsibilities, who you support etc. just to give me a picture of your job in the time before Covid-19?

1) **What impact has Covid-19 had on the working practices of Peripatetic Teachers of the Deaf?**

In terms of working practice, what impacts did the first lockdown have?

Thinking about audiology:

How did you troubleshoot remotely?

What about radio aids?

What was the impact of things taking longer?

What about hard to reach families?

How did you coach / train families?

Thinking about teaching:

What changes were there to your teaching?

Tell me about CYP-D learning about PUD

Were you able to coach parents?

Were you able to make on impact on the accessibility of the learning that was provided to children?

What long term impact do you feel will occur because of not being able to do assessments?

Thinking about training:

How were you able to coach parents?

Were you able to coach / train other professionals?

How did you get around / cope with practical elements?

Some people report that families grew more independent / were better able to advocate for themselves.

2) **What impact has Covid-19 had on the inter-professional collaboration of Peripatetic Teachers of the Deaf?**

Can you tell me about the sort of practice that you do that usually involves inter-professional collaboration?

How did this change for you?

Can you give me some examples?

How do you feel this impacted on young people?

Some people feel that MDT working improved, what do you think about this?

Some people feel that as other professionals had different priorities or were redeployed that this made MDT working more difficult. What do you think about this?

Did mainstream staff use your expertise or were you peripheral at this time?

3) **What impact has Covid-19 had on relationships with between Peripatetic Teachers of the Deaf, CYP-D and their families?**

And what about relationships with the children and their families change?

Thinking about new referrals:

How did dealing with new referrals impact on your relationships?

Were you able to build relationships in the same or different ways?

What impact do you think this has had?

What impact did it have on groups e.g. early years

Impact on training

How were you able to engage families?

What about the wider family?

Differential between family circumstances? Impact on children?

Potential follow on / probe further questions

Were you able to offer individualised support?

Was your role clear?

Did other professionals view your expertise as vital?

Did you feel central to provision?

Where do you feel the child was positioned?

Was the child an active partner before lockdown?

Were they an active partner during lockdown?

What have you learnt from this?

Can you give me an example?

Can you explain a little more?

What was the impact of that?

What long term changes do you think need to lead from this?

Why do you think this was?

What impact do you think this has in the long term?

What impact did this have in the short term?

Were you provided with any training?

What training do you think would have helped?

What impact do you feel this will have on CYP-D?

Were you having to be more pro-active or more reactive?

Appendix VI – Initial coding map to inform interview schedule