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A comparison of the requirements for ongoing professional certification with registered bodies between Board Certified Behavior Analysts (BCBAs), Speech and Language Therapists (SaLTs) and Occupational Therapists (OTs): A Scoping Review

by

David Anthony, BA (Hons), PGCE, QTS, NASENCo

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ABSTRACT

Behaviour analysts, speech and language therapists and occupational therapists all engage in continuing professional development. Through a six-part scoping review, this study compares the ongoing professional development requirements of these three professions and their own accrediting bodies. The study reviews the requirements for the Behavior Analyst Certification Board; The Health and Care Professions Council; as well as The Royal College of Speech and Language Therapists, The Royal College of Occupational Therapists, and the UK Society for Behaviour Analysis.

The study gains insight into the different perceptions of continuing professional development of each profession, as well as the views of professionals in relation to which forms of professional development they perceive to increase their competence. It also explores the barriers encountered by professionals and the considerations given before committing to a piece of continuing professional development.

A scoping review was conducted, following the Arksey & O'Malley (2005) scoping review framework, and embedding recommendations for each stage published by Levac, et al., (2010). A consultation stage was included as part of the review and surveyed 40 professionals working either as a behaviour analyst, speech and language therapist or occupational therapist. 15 articles were included in the review for analysis.

It was found that all three professions face similar barriers and challenges when engaging with continuing professional development. The Health and Care Professions Council, Behavior Analyst Certification Board, and UK Society for Behaviour Analysis all have systems in place for ensuring professional development is part of their ongoing accreditation process for registrants. Future recommendations are suggested in line with monitoring the impact of continuing professional development for service users, clients, or learners.

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ABBREVIATIONS

ABA	Applied Behaviour Analysis
ACE	Authorised Continuing Education
AHP	Allied Health Professional / Professions
BACB	Behaviour Analyst Certification Board
BCBA	Board Certified Behaviour Analyst
BPS	British Psychological Society
CASP	Critical Appraisal Skills Programme
CE	Continuing Education
CEU	Continuing Education Unit
CPD	Continuing Professional Development
HCPC	Health and Care Professions Council
MDT	Multidisciplinary Team
NAS	National Autistic Society
NHS	National Health Service
NICE	National Institute for Health and Care Excellence
OPE	Office of Postsecondary Education
OT	Occupational Therapy / Therapist
PSA	Professional Standards Authority
RCOT	Royal College of Occupational Therapists
RCSLT	Royal College of Speech and Language Therapists
SaLT	Speech and Language Therapy / Therapist
SCPE	Standards of Conduct, Performance, and Ethics (HCPC)
SSESW	School of Social Sciences, Education and Social Work
UKBA(cert)	United Kingdom Behaviour Analyst Certification
UK-SBA	United Kingdom Society of Behaviour Analysis

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CHAPTER 1: INTRODUCTION

This study aims to explore and compare the ongoing professional accreditation with registered bodies for behaviour analysts, speech and language therapists and occupational therapists within the UK. It seeks to establish how continuing professional development (CPD) is used within these professions to broaden their scope of competence. It will also explore what can be learnt from each profession regarding their engagement with CPD. This chapter will explore the key terms and themes that will be explored within this study.

1.1 Continuing Professional Development

CPD has various definitions. However, there is a consensus around two areas that define the term; the process of on-going education or training after a professional's initial qualifying education (for the duration of their professional life) to increase their own expertise and proficiency; and the process of an individual taking responsibility for their own on-going learning, including personal development and reflection (Alsop, 2013 p.9). This definition of CPD highlights that it is an extension of the individual's current learning and knowledge, and the responsibility sits solely with the professional. Hearle & Lawson (2020) extends this definition, emphasising the importance of CPD in relation to ensuring the practitioner 'practises safely, effectively and legally within their evolving scope of practice' (p.1). The term CPD has been used for many years. However, it was not until the introduction of clinical governance in 1998, prompted by the National Health Service (NHS) to improve practice that the term became embedded and fully engaged with by professionals working within the sector. Within the United Kingdom (UK), health and social care standards and requirements are set by regulatory bodies appointed by the Government, such as the Health and Care Professions Council (HCPC) (Hearle & Lawson, 2020, p.3).

1.2 Health and Care Professions Council and Allied Health Professionals

The HCPC's core function is to protect the public through four core activities, which include, setting the standards for professional education, training, and practice; approving the programmes of study professionals must complete to register with the HCPC; keeping a register of professionals who meet the HCPC standards; and act against those on the register who do not meet the HCPC standards (HCPC, 2023a). The HCPC regulates 15 professions, including many Allied Health Professionals (AHPs) (HCPC, 2023b). All 15 professions regulated by the HCPC have their own professional bodies, which offer further guidance on CPD as well as maintaining their own standards. These

standards do include generic elements found within any professional practice, such as standards of conducts, ethical practice and five standards for CPD (Hearle & Lawson, 2020, p.4).

AHPs are the third largest group of professionals within the NHS (NHS, 2023a) and make up one third of the health and social care workforce in the U.K. AHPs are a diverse group of 14 different professionals, including speech and language therapists (SaLTs), occupational therapists (OTs), physiotherapists, drama, and music therapy (Harris et al., 2020, p.2) with the majority of these being regulated by the HCPC and Osteopaths regulated by the General Osteopathic Council (GOC) (NHS, 2023a).

1.3 Speech and Language Therapy (SaLT)

Speech and language therapists are one of fourteen AHPs within the U.K. They provide assessment, treatment and support for children and adults who have difficulties with communication, eating, drinking, or swallowing (NHS, 2023b). As of March 2023, there were 18,390 practicing SaLTs in the UK registered with the HCPC (HCPC, 2023c). Most SaLTs work within the NHS, with an increasing number working within education, charitable organisations or privately (RCSLT, 2023a).

1.4 Occupational Therapy (OT)

Occupational therapy (OT) dates back to the early 1900s, focusing on teaching people the skills needed for independence and participation in daily living skills, through adapting or modifying environments and tasks (Gasiewski et al., 2021, p.1211). The Royal College of Occupational Therapists (ROCT) was formed in 1932, originally known as the Scottish Association of Occupational Therapists (ROCT, 2023a) and currently has 36,000 members (ROCT, 2023b). It is the sole professional body for OTs in the U.K. It has an agenda to ensure OTs have access to learning, research, and continuous learning of new skills and knowledge (RCOT, 2023b). ROCT also sets the national standard for OTs through its Professional Standards for Occupational Therapy Practice, Conduct and Ethics (RCOT, 2021c), which is reviewed every five years. If registered members engage in behaviour that can bring the RCOT into disrupt or goes against their professional standards, they may move to remove the registrant. However, the HCPC oversees the fitness of registrants to practice (RCOT, 2023d).

1.5 Behaviour Analysis

Applied behaviour analysis (ABA) is the science in which techniques derived from the principles of behaviour are applied systematically to improve socially significant behaviour (Cooper, et al., 2020, p.34). Baer, Wolf, & Risley (1968, p.92) identified seven key dimensions of ABA; applied, behavioural, analytic, technological, conceptually systematic, and effective. ABA is not one intervention or a therapy for autism. Instead, it is science which a wide range of techniques are based upon to help a range of behaviours and diagnoses, including autism (Dillenburger & Keenan, 2009, p.193). Methods used by behaviour analysts based on ABA are used for effectively teaching new skills as well as responding to behaviours that challenge (Demchack et al., 2019, p307).

The Behavior Analyst Certification Board (BACB) has certified behaviour analysts since 1998, within North America and internationally (Johnston et al, 2017). In the US, the BACB is recognised across all 50 states (Cooper et al., 2020, p9). However, the BACB is not officially recognised within the jurisdictions of the U.K. Without professional regulation, consumers of behaviour analysis are not guaranteed protection and the scope of practice and competence cannot be agreed (Keenan & Dillenburger, 2022). The BACB's certification outside the USA, Canada, and Australia ceased at the end of 2022 (BACB, 2019). In the UK, certification was extended until 2025, following a request from the UK-SBA for a 3-year extension. The UK-SBA has used the extension to establish a professional recognised credential system in the UK (UK-SBA, 2023). Currently, the BACB certifies 583 Board Certified Behaviour Analysts (BCBAs) across the UK (BACB, 2023a). The BCBA stands as a masters-level accreditation for behaviour analysts (BACB, 2023b).

The BACB introduced its first code of conduct in 2001, *'*BACB Guidelines for Responsible Conduct for Behavior Analysts*'* by John Jacobson, who based the guidelines on several ethical codes from similar professions and the surveying of senior behaviour analysts. The guidelines have been reviewed and revised several times since their original publication (Johnston et al., 2017, p.532), with the latest version being the BACB Ethics Code for Behavior Analysts (BACB, 2020). Most behaviour analysts working within the UK adhere to the standards sets by the US based Behavior Analyst Certification Board (BACB).

Within the UK, the UK Society for Behaviour Analysis (UK-SBA) is the main organisation for the promotion, growth, and practice of behaviour analysis. It encourages behaviour analysts to register with the UK-SBA, and to commit to an ethical code of conduct. The UK-SBA is the main body seeking to establish an alternative to the BACB's accreditation, following the BACB's decision to cease

international certification (UK-SBA, 2022a). As of August 2023, the UK-SBA currently has 407 registered behaviour analysts within the UK (UK-SBA, 2023a). In January 2023, the UK-SBA's register of behaviour analysts was accredited under the Professional's Standard Authority's (PSA) Accredited Registers programme (UK-SBA, 2023b). Not everyone working within health and social care is regulated by law, including behaviour analysis in the UK. The PSA accreditation sets standards for professional registers, such as the UK-SBA's register of behaviour analysts. Those registers accredited by the PSA have signed up to minimal standards associated with competence, protection from risk and a dedication to improve standards (PSA, 2023). The PSA reviews the work of the regulators of health and care professionals; accredits organisations that register health and care practitioners in unregulated occupations; and gives policy advice to ministers and others and encouraging research to improve regulation. The accreditation by the PSA has moved the UK-SBA to be formally recognised and enabled the UK-SBA register to be comparable to other registers of accredited professionals.

1.6 Scope of practice and competence related to ethical practice and CPD

When addressing professional development, it is necessary to acknowledge both scope of practice and competence. CPD aims to provide an extension of knowledge to professionals as well as ensuring they stay relevant within an evolving profession. However, the terms 'scope of practice' and 'competence' translate slightly differently across professions. Within behaviour analysis, Brodhead, Cox & Quigley (2018, p.56) defined scope of practice as 'the range of activities in which members of a profession may be authorized to engage by virtue of holding a credential or licence'. For behaviour analysts accredited with the BACB, the scope of practice is outlined within the BACB Task List (Brodhead, Quigley, Wilczynski, 2018, p.424). Where a licensure law conflicts with an accrediting body, the licensure law will trump the accrediting body (Brodhead, Cox & Quigley, 2018, p.56). The Ethics Code for Behavior Analysts (BACB, 2020, p.4) addresses scope of practice explicitly within its core principles, stating 'behavior analysts ensure their competence by remaining within the profession's practice'.

The HCPC define scope of practice within their Standards of Conduct, Performance and Ethics (SCPE) (HCPC, 2016, p.13) as 'the areas in which a registrant has the knowledge, skills, and experience necessary to practice safely and effectively'. They go on to state that the professional themselves should determine what is and is not part of their scope of practice (HCPC, 2023d). The behaviour analyst definition could be interpreted less on an individual's personal judgement, with the define activities within their practice being prescribed (by the Task List). The HCPC definition falls

more in line with the BACB's (2020) The Ethics Code for Behavior Analysts definition of scope of competence, which reads 'the professional activities a behavior analyst can consistently perform with proficiency' (p.8). Broadhead, Cox & Quigley (2018, p.57) explain that a scope of competence is decided at an individual level, it is worked out by the professional themselves practicing within their own scope of practice. In addition, The Ethics Code for Behavior Analysts (BACB, 2020) states that professionals should maintain their competence through accessing professional development activities including reading relevant literature; attending conferences; engaging in workshops, training, and obtaining additional coursework, supervision, consultation, and coaching (p.9). The Code also states behaviour analysts should engage in study, training, supervised activities, or/and co-delivery of services with an appropriately accredited individual with the experience (p.9).

The SCPE (HCPC, 2016) addresses scope of competence in relation to CPD, stating that those registered must keep within their scope of practice and only practice in the areas they have knowledge, skills, and experience. Where a practitioner does not have these, they must be referred to another practitioner or service (p.6).

It is clear there is common ground between behaviour analysts and AHPs registered with the HCPC with regards to the expectation of CPD. Both value the ethical principle of working within one's scope of practice and being aware of one's competence. Both value CPD in expanding professional competence.

1.7 Multidisciplinary Teams (MDT)

Autistic children, who face challenges with social interaction, social communication, and often repetitive and restrictive behaviour (NAS, 2023), are also frequently diagnosed with cooccurring conditions such as seizures, gastrointestinal problems, sleep disturbances, and mental health conditions (Al-Beltagi, 2021, p.15). No one profession has the scope of practice and knowhow to effectively address such a variety of need, hence the necessity for a joined up and coordinated response to provision and support, often in the form of an MDT (NICE, 2023). Multidisciplinary teamwork has become an accepted practice within education and social care settings, bringing together a group of professions often made up of education, medical, allied health, social care professionals, as well as behaviour analysts (Dillenburger et al., 2014, p.98). Lafrance et al. (2019) identified that the complexity and co-morbidity associated with autism results in a need for interdisciplinary collaboration between different professions, including SaLT and OT (p.710). National strategy documents across the UK identify the need for continued and improved joined up

working across health and care systems, as well as the importance of education and continuing professional development for these professionals (Karas et al., 2020, p.1).

1.8 Ethics codes in relation to MDT

The HCPC, RCOT, BACB, and UK-SBA all have individual ethical standards or codes relating to best practice. The RCSLT publish guidance on how SaLTs can meet the HCPC standards. All five organisations have clear standards in relation to working with colleagues and professionals both within their own practice and outside of it. The HCPC's SCPE (2016) outline two standards associated with multidisciplinary working: '2.5 You must work in partnership with colleagues, sharing your skills, knowledge, and experience where appropriate, for the benefit of service users and carers' (p.6). This standard is supported by '2.6 You must share relevant information, where appropriate, with colleagues involved in the care, treatment or other services provided to a service user'. The HCPC's SCPE (2016) is mirrored with guidance from the RCSLT, who state in their key principles that therapists should 'work in partnership with colleagues both within and outside of the profession in the best interests of service users' (RCSLT, 2023b). Within the RCOT's Professional Standards for Occupational Therapy Practice, Conduct and Ethics (2021), there are 11 standards under the heading 'Collaborative Working' (p.31), with two of these directly addressing multiagency working, '5.7.10 You recognise the need for interprofessional and multiagency collaboration to ensure that well-co-ordinated person-centred services are delivered in the most effective ways', and '5.7.11 You work and communicate with colleagues and representatives of other organisation to ensure the safety and wellbeing of people accessing services' (RCOT, 2021, p.31).

The BACB and UK-SBA both address multidisciplinary working within their ethics codes. The Ethics Code for Behavior Analysts (BACB, 2020) states that behaviour analysts must 'collaborate with colleagues from their own and other professions in the best interest of clients and stakeholders' (p.11). The UK-SBA Code of Ethical and Professional Conduct (UK-SBA, 2022b) states that 'professional relationships should be conducted on the basis of mutual respect both within the profession of Behaviour Analysis and across other relevant professions' (p.9).

What all these ethical codes and standards have in common is the importance of working together in the best interests of the client being served, as well as acknowledging, understanding, and showing appreciation that professionals from across the professions bring a level of practice and competence to the MDT.

1.9 Aims of this study

The aim of this study will be to compare the accreditation requirements of behaviour analysts certified as a BCBA to two AHPs (SaLTs and OTs) in the U.K. Dillenburger et al., (2014) conducted research comparing the training for these roles and the initial accreditation requirements. Karas et al., (2019) compared 32 healthcare professions within the UK through their scoping review. However, no known research exists in comparing the requirements for ongoing accreditation and continuing professional development between AHPs and behaviour analysts accredited by the BACB. Such research would be timely due to the BACB ceasing international accreditation for the UK in 2025.

The research questions to be answered by this study are:

How do the requirements for ongoing professional certification with registered bodies compare between BCBAs, speech and language therapists (SaLT) and occupational therapists (OT)?

a. How do BCBAs, SLTs and OTs use ongoing professional development to specialise within their field?
b. As the BACB moves to cease certification outside North America, what can behaviour analysts in the UK learn from colleagues in similar professional roles with regards to ongoing accreditation?

CHAPTER 2. METHOD

This chapter aims to explain the processes involved in the selection of articles and studies analysed as part of the scoping review. The chapter is designed in line with Arksey & O'Malley's (2005) methodological framework, as well as considering revisions and recommendations from Levac et al. (2010). The chapter will break the method down into six parts before ethical considerations and quality assurance are addressed.

2.1 Research Method: Scoping Review

Scoping reviews have grown in popularity in recent years, with studies being published across a wide range of fields of study (Pham et al, 2014, p.372). Arksey & O'Malley (2005) developed a methodological framework for implementing scoping reviews based on the definition offered by Mays, Roberts, & Popay (2001), which describes scoping reviews as mapping quickly the key concepts that underpin a research area and the main sources and types of evidence available. Furthermore, they can be completed as a stand-alone project, especially where an area is more complex or has not previously been reviewed in a comprehensive way. Within their framework, Arksey & O'Malley (2005) offered four common reasons why a scoping review might be undertaken by a researcher; 'to examine the extent, range and nature of research activity; to determine the value of undertaking a full systematic review; to summarise and disseminate research findings; to identify research gaps in existing literature' (p.21). The third reason identified, 'to summarise and disseminate research findings', fits within the remit of this study. A scoping review will enable a comprehensive level of breath and depth, allowing for the study question to be addressed, while identifying gaps in the current research.

The methodology used within this study follows the framework developed by Arksey & O'Malley (2005) and embeds recommendations for each stage published by Levac, et al., (2010). Since the Levac et al., (2010) publication, scoping reviews have continued to develop and evolve (Westphaln et al., 2021). Colquhoun et al., (2014) called for clarity on terminology, recommending that those engaging in the framework and approach should use either the terms 'scoping review' or 'scoping study' to describe the methodology (p.1292). Within this study the term scoping review will be used to describe the methodological framework and approach.

There are six stages of a scoping review, which include 1. identifying the research question; 2. identifying relevant studies; 3. study selection; 4. charting the data; and 5. collating, summarising,

and reporting the results. Originally, Arksey & O'Malley (2005) suggested a sixth, optional stage. However, following Levac et al. (2010) recommended, a 'consultation exercise' should be a requirement of a scoping study and included as part of the framework. Such a stage will offer methodological rigor (p.7) as well as providing an opportunity for stakeholder involvement in the study. It also has the possibility of adding insights beyond what is discovered in the literature (Jolley et al., 2017, p.4).

2.2.1: Identifying the research question (Stage 1)

Identifying the research question is the first stage of the scoping review. Arksey & O'Malley (2005) acknowledged a need to keep this question broad. However, Levac et al. (2010, p.3) describes such an approach can result in a lack of direction, clarity, and focus. Such broadness in nature can make study selection for the review challenging and unachievable. For this study, a broader initial research question was used:

1. How do the requirements for ongoing professional certification with registered bodies compare between BCBAs, SaLT and OT?

However, this was supported by using a clearly articulated search criteria as well as one additional question:

a) How do BCBAs, SLTs and OTs use ongoing professional development to specialise within their field?

Levac et al. (2010) outlined the importance of identifying the purpose of the scoping review and the intended outcome. For this study, it looked to provide recommendations within the remit of:

b) As the BACB moves to cease certification outside North America, what can behaviour analysts in the UK learn from colleagues in similar professional roles regarding ongoing accreditation?

The research question identified for a scoping review should have a clearly articulated target population. In this study, the review looked to engage with three specific groups:

- Behaviour analysts, registered with the BACB as BCBAs within the U.K
- Speech and language therapists, registered with the HCPC
- Occupational therapists, registered with the HCPC.

2.2.2: Identifying relevant studies (Stage 2)

The purpose of this scoping review is to identify and be comprehensive in gathering primary studies in relation to the research question. Key sources are recommended by Arksey & O'Malley (2005), which include:

- electronic databases
- reference lists
- key journals
- existing networks, relevant organisations, and conferences

Scope in relation to available resources

A key consideration for a scoping review is the available resources compared to the scale of the study. A balance needs to be established between the search criteria and available resources, these being time and budget (Arksey & O'Malley, 2005, p.23), as well in this case being a solo researcher without the support of a wider team. The search criteria were chosen to ensure the study can be completed with the available resources, as well as offering the right level of evidence to answer the research aims and outcomes.

Online databases

Database searches included representation from the three subject areas including ABA, SaLT and OT. The following online databases were chosen as part of the scoping review: PubMed Central; Google Scholar; and Queen's University Online Library Services.

Key journals

Key journals were identified to represent the three core disciplines covered by this study. Journals associated with SLT and OT were identified through the RCSLT and the RCOT. The main journals relating to behaviour analysis were also selected. The list of journals includes:

- The International Journal of Language & Communication Disorders (JLCD)
- British Journal of Occupational Therapy (BJOT)
- Journal of Applied Behavior Analysis (JABA)
- Behavior Analysis in Practice
- Education and Training in Autism and Developmental Disabilities.

Reference lists

Where systematic reviews form part of the scoping review data collection, their individual biographies were checked against the ones already forming part of the scoping review. Where an entry on a

biography is not already included in the scoping review, it was added and processed in line with the methodology described.

Key search terms

The search strategies used within this study are developed from the research question, covering the key target audience, professions, and the topic of this study. Key search terms are listed in Table 1.

Table 1 – List of key search terms used in identifying studies within the scoping review

List 1
Occupational therapy or occupational therapist or OT
speech and language therapy or speech and language pathology or speech therapist or slt or slp
Behavi* analyst
Behavi* analysis
allied health professionals, ahp
List 2
Continuing education or professional development or CE or CPD
List 3
UK or United Kingdom

The search terms consider abbreviations, acronyms, plurals, and American English. Searches will include one key search term from lists 1, 2 and 3. Key terms were searched using parentheses to increase the accuracy of results retrieved.

Publication Dates

Searches only included material published between 2001 up to April 2023. This date range reflects the point in which the BACB issued its first BACB Guidelines for Responsible Conduct for Behavior Analysts (2001) and with the establishment of the HCPC in 2003.

Languages

Due to the limited resources available, languages other than English are excluded from the study.

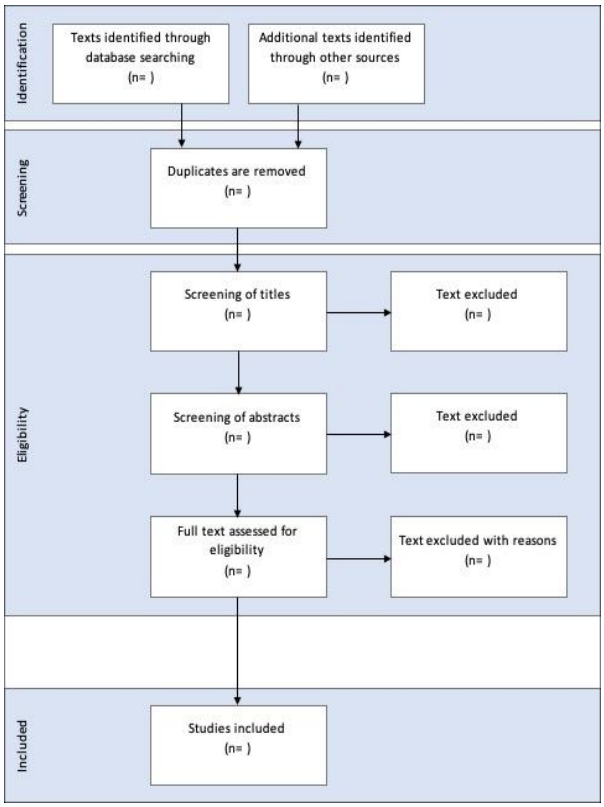
Citation management

All articles and publications are stored and managed using EndNote20. The software is used to manually remove duplicates, as well as extracting key information and organising the citations into themes.

2.2.3 Study selection (Stage 3)

Using the eligibility criteria, this stage of the scoping review focuses on the process of searching the literature for inclusion and exclusion (Arksey & O'Malley, 2005, p.25). Once the search has begun, there is an opportunity to begin refining the search strategy based on the outcomes from the search terms used. The study selection was completed through a four phased process (Figure.1), based on the PRISMA-ScR approach developed by Joanna Briggs Institute (Peters et al., 2015). The approach was adapted for this study. Phase 1 is concerned with the identification of studies, through the search methods outlined. Once all studies have been identified, Phase 2 manages the screening process, removing duplicates from the set. Phase 3 is broken down into three stages to check eligibility: (1) screening of titles for eligibility, (2) screening of abstracts for eligibility, (3) terminating with a review of the whole text for eligibility. The purpose of using titles and abstracts in the first instance is to reduce the occurrence of wasted resources. Whereby an abstract was not available, the whole article was screened. Those which met the criteria were read in full and either included or excluded based on its entirety; processing to Phase 4, where articles were charted for collating and reporting. The process is illustrated in Figure 1.

Figure 1 - Study Selection adapted for this study from the PRISMA Flow Diagram (Peters et al., 2015)



To be included in the review, papers needed to address CPD / continuing education (CE) either for SaLT, OTs and/or behaviour analysts and published between 2001 and 2023. The papers needed to be in English and involve human participants. Quantitative, qualitative, and mixed method studies were included to ensure a full capture of data was reviewed. Papers were excluded if they did not fit the focus of CPD, and the three core professions being addressed.

2.2.4 Charting the data (Stage 4)

The fourth stage in Arksey & O'Malley's (2005) framework is establishing a protocol for the charting of data and forming a data extraction plan (p.26). By charting the data, key themes and findings are extracted from the papers which have successfully made it through the review process. Arksey & O'Malley (2005) and Levac et al., (2010) both highlight the importance of obtaining data that directly answers the research question and ensuring consistency in the presentation of the data. A charting form was developed for this study, based on the recommendations for charting data from Peters et al., (2020). It focused on the collection of 12 key pieces of data:

- Author(s)
- Year of publication
- Origin / country of origin
- Type of study
- Aims / purpose
- Participant(s) or subject(s) characteristics
- Generalisability / sample size
- Study design / research design
- Intervention type, comparator, and details of these
- Outcomes
- Conflicts of interest
- Key findings that relate to the scoping review question/s

Establishing the extent of data to extract from papers can initially be an area of concern for the researcher(s) (Levac et al., 2010, p.6). Due to only one researcher completing the review for this study, consistency across multiple researchers is not a concern. However, establishing the depth of content to extract should be established within the first 5 to 10 papers charted. Remaining focused on answering the research question and extracting the core messaging should enable a researcher to begin identifying the themes within the area of study (Arksey & O'Malley, 2005; Levac et al., 2010).

2.2.5 Collating, summarising, and reporting the results (Stage 5)

Stage 5 of the scoping review is the most extensive and should be conducted in three steps: analysing the data, reporting the results, and applying meaning to the results (Levac et al, 2010, p.6). In the first instance, the PRISMA flow-chart was completed to indicate the total number of papers included and excluded at each stage (Peters et al., 2015). A descriptive numerical summary was established, stating how many papers were included; types of study design; years of publication; and participant characteristics in relation to being a BCBA, OT or SaLT. Additional data was charted within a table, stating the types of study and their form. In addition, key themes were identified in connection to how each profession approaches CPD in relation to their field, as well as the role CPD applies in specialising within their field.

Scoping reviews should consider their broader implications for research, policy, and practice (Levac et al., 2010, p.5). The purpose of this review was to establish recommendations on CPD and accreditation for UK based behaviour analysts as the BACB moves to cease international accreditation. The themes and data collected were used to make these recommendations. It also looks to make suggestions regarding further research in the area.

2.2.6 Consultation (Stage 6)

Arksey & O'Malley (2005) originally stated the consultation phase of a scoping review should be considered optional. Tricco et al., (2016, p.8) found through a scoping review of reporting and conduct of scoping reviews, that most scoping reviews omit to either engage in this step or do not report on the consultation within their research. Some evidence indicated researchers acknowledged stakeholders only briefly within their discussion at the end of their publication. However, Levac et al., (2010, p.4) recommended this phase be compulsory to add methodological rigour and highlighted four considerations to be reviewed. These included clearly stating the purpose of the consultation; how initial findings can inform the consultation; clearly articulate the stakeholders who will be consulted with and how their contributions will be collected; as well as creating an opportunity for knowledge exchange to take place between researcher and stakeholder.

Within this study, the consultation phase was completed at the same time as the study selection. Due to the short duration of this study, the consultation needed to run parallel with other activities to ensure sufficient time was available for stakeholders to reply. By running the consultation in this way, it reduced the number of initial findings that could be used to influence the contents of the

consultation. The purpose of the consultation was to gain the views of registered professionals on CPD and CE and their engagement with such activities, and to compare these to the findings of the scoping review. The stakeholders were SaLTs registered with the HCPC, OTs registered with the HCPC, and behaviour analysts registered with the BACB. In addition, the consultation established if these professionals were registered with other bodies or organisations, such as the RCSLT, RCOT and the UK-SBA.

Contributions to the consultation were collected using an online survey, following ethical approval from the School of Social Sciences, Education and Social Work, Queen's University Belfast. Following the reading of an information sheet and agreeing to give consent, participants were asked to answer 12 questions, either requiring a multiple-choice answer or placing an answer on a Likert scale. A copy of the survey questions are display in Appendix A. Responses were collated and graphed ready for analysis.

2.3.1 Quality Assurance

Due to the limited resources and context of this study, it was carried out by a sole researcher. Such practice increases the risk of the occurrence of natural bias from the researcher. To mitigate the chance of bias, the protocol explaining the review procedure was completed and documented so it could be considered replicable. In addition, the process for appraising the quality of studies used a quality appraising tool, which has been used in similar studies to this scoping review.

2.3.2 Appraising the Quality of Studies

Establishing the quality of the studies included within the scoping review is vital in understanding the reliability of the findings presented. A key aspect of appraising the quality of the studies or providing critical appraisal (Newman & Gough, 2020, p.13) includes assessing the design, conducted, reported and whether they answer the question this review seeks to answer (Greenhalgh & Brown, 2017, p.108). Newman & Gough (2020, p.13) states there are three elements to consider in critical appraisal, which include the appropriateness of the study design (in context of the review question), the quality of implementing the study methods, and the study's relevance to the review question. The Critical Appraisal Skills Programme (CASP) tool is widely used to assess the quality of health-related qualitative evidence (Long et al., 2020, p.31) and was adapted for the use within this scoping review. The questions were scored using Yes, No, Somewhat and Can't Tell. 'Somewhat' was added as an additional option. This addition adds a greater level of nuance and follows the format used by

Long et al. (2020) in their study to enhance the CASP tool. The questions used for the appraisal are identified in Table 2.

Table 2 – Adapted CASP Qualitative Checklist (Critical Appraisal Skills Programme, 2022).

Questions:	**Points to consider:**
1. Was there a clear statement of the aims of the research?	● What was the goal of the research? ● Why was it thought important? ● Its relevance
2. Is the methodology appropriate?	● Is the methodology right for addressing the research goal?
3. Was the recruitment strategy right for the aims of the research?	● Does the researcher explain how participants were selected? ● Were they the most appropriate participants for this study? ● Were there discussions about recruitment and if so, why people might have chosen not to take part?
4. Was data collected in a way that addressed the research issue?	● Was the setting for the data collection justified? ● Was it clear how data was collected? ● Did the researcher justify the method used? ● Was the method modified during the study, if so, was this justified? ● Is the form of data clear?
5. Has the relationship between researcher and participants been adequately considered?	● Did the researcher critically examine their own role?
6. Have ethical issues been taken into consideration?	● If the researcher has discussed issues raised by the study (e.g., issues around informed consent or confidentiality or how they have handled the effects of the study on the participants during and after the study) ● If approval has been sought from the ethics committee

7. Was the data analysis sufficiently rigorous?	● If there is an in-depth description of the analysis process ● Sufficient data supplied to support finding? ● To what extend contradictory data are considered. ● Research bias in critically examining their role in analysis and selection of data.
8. Is there a clear statement of findings?	● Is there a discussion regarding creditability of findings? ● Is there adequate discussion of findings?
9. Is the research valuable?	● Does the research discuss the contribution the study makes to the existing knowledge? ● Do they identify new areas for research? ● How effective the findings can be generalised?
Is the research considered to be high, medium, or low quality?	● Based on an individual scoring of each question.

The results were scored accordingly to the answer, with Yes responses indicating a greater level of quality. Studies included were then ranked based on their overall score. The assigned scoring weight is shown in Table 3.

Table 3 – the level of scoring associated with each response.

Response	**Score**
Yes	2
Somewhat	1
Can't tell	0
No	0

2.4 Ethical Considerations

Systematic reviews, and in this case a scoping review, do not typically collect personal, sensitive, or confidential information from participants and rarely require ethical approval from an academic institution (Suri, 2020, p.41). Primary researchers are required to gain ethical approval from an ethics board before engaging in research with human participants. This study was approved following an application to the University's SSESW School Research Ethics Committee (Appendix

B). This study dealt with the literature within a scoping review. However, the decision to conduct part six of the review, 'consultation', meant contact with human subjects was required. The application considered risk management, consent, withdrawal, recruitment & sampling, methods of data collection, data security and participant confidentiality.

It was determined the study was low risk, with no concerns being identified in relation to sensitive topics, confidential information, financial concerns, the use of deception, the observation of individuals or the use of prolonged testing. The research did not involve vulnerable groups, including children and did not seek to bring about behaviour change in the participants.

Participants were recruited via a recruitment flyer (Appendix C) distributed via social media and then provided with an Information Participation Sheet (Appendix D). Both documents were approved by the SSESW School Research Ethics Committee. All participants were required to give consent, this was through a form prior to the consultation survey. Participants consented to engaging in the survey and the collection of their data; the publication of the data through the completed dissertation paper; and for the secure storage of data for the duration of the study. Participants were unable to complete the survey unless all three statements were agreed upon. Participants were informed that participation was voluntary, and they could withdraw from the study up to the point of submitting their survey answers. Participants could not be withdrawn after this point due to the data being combined with a larger data set and being anonymised. Throughout the study, data was securely stored and only accessible by the primary researcher.

2.5 Problems and Resolutions

Through the process of identifying studies, it was clear the search parameters did not enable enough scope for enough studies to be returned during searches. Through experimenting with search terminology, the country of origin was adjusted. Instead of solely searching for UK based articles, the search encompassed studies in English from any country of origin. Such changes resulted in a larger number of returned studies. During the analysis of the studies selected to be included in the review, it was important to note where experiences were outside the UK and how this impacted upon the results and the generalisability of the findings.

During the consultation phase of the review, there was a low response rate to the survey from OTs. Most responses came from behaviour analysts and a smaller percentage of SaLTs. There is no clear explanation why fewer OTs responded to the survey. However, the researcher in this study had a

greater network of behaviour analysts and SaLTs than OTs, which may account for the discrepancy between the professions. During the search of studies, a greater number of OT based articles were returned. This ensured that OTs were able to be included within the scope of this study.

CHAPTER 3. RESULTS

This chapter aims to demonstrate how the researcher used the methodology described in the previous chapter to consolidate the final articles included in the scoping review. These studies were then scrutinised for data syntheses. The chapter includes details on the databases used and the sources of the studies, as well as the extracting of data and a summary of outcomes. Studies selected for inclusion are also assessed for quality using the adapted CASP Qualitative Checklist.

3.1 Selected Studies and Sources

The database searches resulted in 1370 studies being found. Following the screening of titles and the removal of duplicates, this was reduced to 36 articles. The 36 articles were reviewed based on their abstract, with 21 articles having their full text reviewed. Through applying the inclusion and exclusion criteria, 15 articles were chosen to proceed for further analysis.

The 15 articles were spread across 10 journals and sources. The majority of articles were from academic journals, as seen in Table 4.

Table 4 – Sources of selected studies

Source	**Number of studies**
British Journal of Occupational Therapy	4
Association of Occupational Therapists of Ireland	1
Journal of Therapy and Rehabilitation	1
University of Dublin	1
BMC Medical Education	2
Behavior Analysis in Practice	2
Journal of Further and Higher Education	1
Journal of Occupational Therapy, Schools, Early Intervention	1
Child Language Teaching and Therapy	1
Scandinavian Journal of Occupational Therapy	1

The 15 articles were spread unevenly across the three professions of focus (OTs, SaLTs and behaviour analysts) as well as the grouping of AHPs. A far greater number of studies were found relating to CPD and OT. Table 5 illustrates the spread of studies across the professions.

Table 5 – Spread of selected studies across professions

Profession	**Number of studies**
Occupational Therapy	10
Behaviour Analysis	2
Allied Health Professionals	2
Speech and Language Therapy	1

3.2.1 Quality Assessment of Selected Studies

The 15 studies included to proceed for further analysis were screened to determine their quality and rigor using the adapted CASP Qualitative Checklist, as listed and described in Table 3 of the Method chapter. This process enables the researcher to determine if the studies selected are reliable and purposeful to the scoping review aims. Each study was scored in the 9 areas of the checklist and ranked from highest quality to lowest quality. The results from the CASP Qualitative Checklist are displayed in Table 6.

Table 6 - Quality assessment of selected studies using the adapted CASP Qualitative Checklist

QA Question:	Ham & Fenech (2002)	Hunter & Nicol (2002)	Pollard (2002)	Penny (2004)	White (2005)	Davys et al. (2008)	Shortall (2008)	Lizarondo et al. (2011)	Gillis & Carr (2014)	Murray & Ward (2015)	Szucs et al. (2016)	Berndt et al. (2017)	Brebner et al. (2017)	Kranak et al. (2022)	Teoh (2023)
1. Was there a clear statement of the aims of the research?	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2
2. Is the methodology appropriate?	0	2	0	2	2	2	2	2	1	2	2	2	2	2	2
3. Was the recruitment strategy right for the aims of the research?	N/A	N/A	N/A	1	1	1	2	2	N/A	1	1	N/A	1	1	2
4. Was data collected in a way that addressed the research issue?	0	2	0	2	2	2	2	2	2	2	2	2	2	2	2

5. Has the relationship between researcher and participants been adequately considered?	N/A	N/A	N/A	1	0	1	2	2	N /A	1	1	N/A	1	2	1
6. Have ethical issues been taken into consideration?	0	0	0	0	2	2	2	1	0	2	1	1	0	2	2
7. Was the data analysis sufficiently rigorous?	0	2	0	2	2	2	2	1	1	1	2	2	2	2	2
8. Is there a clear statement of findings?	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2
9. Is the research valuable?	1	2	1	2	2	2	2	2	1	2	2	2	1	2	2
Totals	3	12	3	14	15	16	18	16	9	15	15	13	13	17	17
High Quality				X	X	X	X	X		X	X			X	X
Medium Quality		X							X			X	X		
Low Quality	X		X												

3.2.2. Findings from the Quality Assessment

The 15 studies were divided into three categories, low quality (score of 0 to 6), medium quality (6 to 13) or high quality (14 and above). Of the 15 studies, two were considered low quality (Ham & Fenech, 2002; Pollard, 2002), scoring 3 out of 20 on the adapted CASP Checklist. Four studies were considered medium quality (Hunter & Nicol, 2002; Gillis & Carr, 2014; Berndt et al., 2017; and Brebner et al., 2022). The remaining 8 studies were considered high quality, achieving a range score of 14 to 18. The studies and their individual scores are displayed in Figure 2.

Figure 2 – Bar chart of each study's individual quality assessment scores

Ham & Fench (2002) and Pollard (2002) ranked the weakest of all the studies due to the nature of the articles. Both were opinion pieces, and despite both raising important issues surrounding OT and CPD, both provided no empirical evidence or a small sample base to draw conclusions. Hunter & Nicol (2002), Gillis & Carr (2014), Berndt et al. (2017), and Brebner et al. (2022) all scored within the medium quality range. Each of the articles shared similar weaknesses, either scoring low or not at all in the following areas: the recruitment strategy, considering the relationship between

researcher and participants, and the consideration given to ethics. Despite this, all four studies demonstrate a clear aim of the research they undertook, as well as strong statements of findings. The 8 highest quality studies all demonstrated strengths in establishing clear aims, using an appropriate methodology, the data collected addressed the research issue, as well as having sufficient analysis and clear statement findings.

OTs and CPD studies accounted for 6 of the 8 high quality studies, with the remaining two divided between behaviour analysis and AHPs. Brebner et al. (2017) was the only SaLT based study to be included in the review, which scored within the medium quality range.

3.3.1 Data Extraction Results

The data extracted from the included studies is shown in Table 7. The data extracted included study name; Year; Journal / Source, Research Design, participants / profession / or number of studies (if a systematic review), Aims of the study, Key outcomes from the study and limitations of the study. The limitations included come directly from those identified by the author(s) of the article, as well as the researcher for this study.

Table 7 – Data Extraction Results

Study	Research Design	Participants	Aims of study	Outcomes of study	Limitations
Ham & Fenech (2002) United Kingdom British Journal of Occupational Therapy	Opinion piece	None – based on OTs	An opinion piece on occupational therapy and CPD.	CPD should be based on an individual's development plan. CPD is concerned with maintenance and enhancement of knowledge, competence, and expertise. CPD will benefit clients. CPD has benefits to the employer and the individual.	An opinion piece. Assumptions are made regarding links to clients benefiting from CPD without empirical evidence.
Hunter & Nicol (2002) United Kingdom British Journal of Occupational Therapy	Systematic review	13 articles were included in the study	Exploring the value of CPD in recruitment and retention of OTs working in mental health settings.	Literature did not consider CPD in isolation. CPD is not an influencer of recruitment and retention based on the articles studied. Combination of personal and professional factors influence recruitment and retention. CPD should not be considered as a strategy towards recruitment and retention.	Small sample sizes in the articles studied. Studies were based on opinions and descriptive studies. One reviewer involved.
Pollard (2002) United Kingdom British Journal of Occupational Therapy	Opinion piece	None	An opinion piece on CPD and the relationship with research and practice.	CPD requires a personal commitment. OTs have not been enabled to access research due to funding and limitations with policy. Research should be used as the foundation	An opinion piece. Small evidence based provided for findings.

				for evidence-based approaches and supporting practice.	
Penny (2004) Ireland Association of Occupational Therapists of Ireland	Questionnaire	35 OTs	To gain the views on CPD from OT managers in Ireland.	The majority of respondents were in favour of mandatory CPD for registration. There is a lack of mentoring for managers around CPD. Funding, time, and increased staffing were a key challenge in facilitating CPD. Large proportion stated they have no time for CPD activities. Managers considered value for money, competency and improved service provision important when developing CPD opportunities. CPD should fit within organisational strategic goals.	Postal strikes at the time may have impacted the return of questionnaires. Limited to managers who attended a specific event. Implies improvement in service delivery without this being tested by the research.
White (2005) United Kingdom British Journal of Occupational Therapy	Survey	1205 registered OTs	Exploring the dedicated time OTs have for CPD.	CPD is considered valuable and makes a considerable contribution to workplace practices. Dedicated CPD time fosters opportunities for development activities and a learning culture. There are individual and organisational benefits.	All registered OTs were invited to complete the survey. 7% completed and returned the survey.

				Only 37% of OTs have regular CPD, with 39% stating they have no scheduled time. ¼ reported their CPD outcomes are not monitored. 87% stated CPD was beneficial, with 34% stating it created more pressure in their role. 34% also stated it took away time from clients.	
Davys et al. (2008) United Kingdom Journal of Therapy and Rehabilitation	Questionnaire and semi-structured interviews Action research	13 OTs in a higher education (HE) setting	Exploring OTs' perceptions on peer observations working within HE	There is a lack of research into the benefits of peer observation in the field of OT. Participants felt peer observation is positive. It is important to establish the purpose and structure of the observations. Feedback was an area of concern. Peer observation can have a negative impact if not carefully structured positively. Lack of published research in the area.	A limited sample size was used within one context. Not representative and cannot be generalised.
Shortall (2008) Ireland University of Dublin	Survey	56 OTs	Explores OT manager's perceptions of the impact of CPD activities on staff clinical competence.	Differences in perceptions of the types of CPD activities that enhance practice found. Consideration to be given to who chooses a CPD activity – the participant or manager. Explore how CPD needs are identified. No clear outcome on cost / benefit analysis of CPD activities.	All managers from a familiar setting. Number of managers did not receive the survey due to incorrect contact details.

					Restricted number of questions.
Lizarondo et al. (2011) Australia BMC Medical Education	Qualitative descriptive study	39 AHPs from different professions	Exploring the views of journal clubs for AHPs, and how the iCAHE model might be refined as a structure for delivering journal clubs	A structured approach to journal clubs had benefits for the participants. Journal clubs were considered reflective practice. An opportunity to stay up to date with literature. Clinical work / time a significant barrier. Understanding statistics was a barrier for engagement. Training and mentoring required to overcome barriers. Professionals had limited access to research papers / journals.	Facilitators of the focus groups used were project officers of iCAHE journal club – which might prohibit participants from being critical. AHPs were addressed as a whole group. Individual professions will have variations in their training and access to literature / research.
Gillis & Carr (2014) United States of America Behavior Analysis in Practice	Journal review	17 journals reviewed	To create a method in accessing literature for behaviour analysts and keeping current	There are ethical, historical, and current reasons why behaviour analysts should access scholarly literature. Created a list of 15 articles for recommended reading. Cost was a barrier for people accessing literature.	Limited to the field of disabilities and behaviour analysis. Only includes articles up to the point of publication.

			with new research.	Leaving an academic world is a barrier for behaviour analysts. Workplaces must create contingencies to support the access of literature.	Articles that included replication studies were excluded.
Murray & Ward (2015) United Kingdom Journal of Further and Higher Education	Questionnaire	76 qualified and student OTs	Explored what influence social media platforms have on CPD.	Positive views were obtained in relation to social media and its use for CPD. Accessibility, networking, learning, and development were highlighted as advantages of the platform. Limited research was available in the field of social media, OT, and CPD. A need for structured teaching and training on the professional use of social media.	One institution was included in the study. Online survey used, which may result in a bias towards technological skills.
Szucs et al. (2016) United States of America Journal of Occupational Therapy, Schools, Early Intervention	Survey	10 OTs	Investigating the outcomes of a journal club on the evidence-based practice skills of school-based OTs.	Participants reported using workshops, classes, and in-service activities for CPD (in addition to the introduction of journal club). At the start of the study, 55.8% reported using professional journals or books for professional development. Time, access to articles and understanding of data were identified as barriers. Study demonstrated one way of forming a journal club.	Limited sample size within the same organisation – poor generalisability to other contexts. The organisation initiated the journal club, implying motivation towards this form of CPD.

				Increased confidence of participants in accessing journal articles. Practitioners need guidance in accessing journals, critical appraisal, and support in applying to practice.	
Berndt et al. (2017) Australia BMC Medical Education	Systematic review	14 articles included	Exploring the challenges in accessing CPD for AHPs based in rural areas. Reviewing effectiveness of distance learning and its relation to staff retention.	Technology based options have a high utility. The relationship between time, use, travel, location, cost, interactivity, learning outcomes and educational design suggest a need for more sophisticated consideration and research.	No articles were included that reported on retention as an outcome of distant learning. The motivation of those providing CPD were not explored. Limited number of articles on distant learning.
Brebner et al. (2017) Australia Child Language Teaching and Therapy	Survey	14 SaLTs	Exploring an embedded service-based model of professional development focused on SaLTs.	Four themes were identified for a successful service-based model for CPD: ● Communication ● Relationships ● Environment ● Translating knowledge into practice	Self-selection could result in bias results. Small sample size and poor generalisation to other contexts.

					Learning outcomes not addressed in the study.
Kranak et al (2022) United States of America Behavior Analysis in Practice	Survey	231 behaviour analysts	Exploring how behaviour analysts access CPD and their preferences.	Majority of CEUs are chosen because of interest in the topic, rather than their current clinical needs. Accessibility and affordability were the key factors impacting the completion of CPD. Non-peered review sources, such as social media pages and podcasts were accessible and considered good for networking. However, respondents rarely used it for client advice or CPD. Non-peer reviewed materials should be consumed with caution.	Small sample size in comparison to total number of certificants.
Teoh (2023) United Kingdom Scandinavian Journal of Occupational Therapy	Questionnaire	49 OTs	Describes and analyses the various learning activities OTs engage with in professional communities on Facebook.	Little available research into how social media can support CPD. Benefits of social media use identified: ● Acquiring new ideas ● Reinforcement of existing knowledge ● Adjustments of existing knowledge ● Learning about new resources, career advancements and related to hidden curricula.	Difficulties in generalising the results to further contexts. Quality of the CPD not fully explored or peer reviewed.

3.3.2 Summary of Data Extraction Results

Each of the studies provides a statement on their definition of CPD in connection to their field. Ham & Fenech (2002), Hunter & Nicol (2002) and White (2005) share views that CPD in relation to OT is a structured approach to learning and link this to being continuously competent in their role for the duration of their practice. Ham & Fenech (2002) also link CPD to being able to deliver effective service provision. Berndt et al. (2017), writing from an AHP perspective, also linked CPD to competence and delivering improved provision to service users. Kranak et al. (2022) and Gillis & Carr (2014), within a behaviour analytical context, defines CPD as the practice of staying current with research to improve one's behaviour-analytical repertoire, liken to Pollard's (2002) concerns relating to the lack of research-based CPD activities within OT. Brebner et al. (2017), the only SaLT based study included in the scoping review, describes CPD as a something that should further knowledge, skills, dispositions, and practice. They link the proportion of CPD to the impact on the quality of education and care for service users.

Within the studies, five overarching themes were identified:

- CPD in relation to the individual, organisation and client needs
- Time and financial resources
- Accessing literature and the use of journal clubs
- The use of social media in CPD
- Peer observation and embedded models of CPD.

The next part of this chapter explores these themes further.

3.3.3 CPD in relation to the Individual, Organisation and Client Needs

Ham & Fenech (2002) is one of the oldest studies included in the review and is an opinion piece based on authors' experience in OT and CPD. Ham & Fenech (2002) highlight several key points within their article. They describe CPD as a structured approach, which should be individualised to the professional completing the learning. Furthermore, it should consider the individual, organisation, and client needs. CPD is required for the lifetime of a professional, as the profession is likely to change practice over time. CPD should be tailored to the individual through personal development plans and appraisals. Pollard's (2002) opinion piece notes the importance of the individual OT being committed to CPD, and in this specific case, ensuring practice is based on evidence and research. This ethical point is also highlighted within Kranak et al.'s (2022) evaluation of CPD for behaviour

analysts, stating that behaviour analysts are obligated to base their intervention and assessments on professionally derived knowledge and empirical evidence based on the science of behaviour analysis. They expand this by stating such empirical evidence refers to activities such as peer-reviewed literature, conferences and conventions, workshops from ACE providers and completing additional coursework or obtaining additional credentials.

For employers, Ham & Fenech (2002) highlight six reasons why CPD is relevant including:

- Competence – the learning and knowledge gained from formal learning is relatively short and timebound. It is important for employers that therapists are up to date with the changing models and frameworks of service delivery.
- Consumerism – society is having higher expectations when considering their duty of care and level of service. CPD plays a role in meeting these expectations.
- Litigation – CPD is considered one control measure in reducing the potential claims of negligence.
- Standards – as many OT work with vulnerable groups, safeguarding and high standards of practice are vital. CPD is part of the system of training and communicating these standards.
- Quality management system – CPD has an increasing importance as a key element in an organisation's quality assurance process.
- Competitiveness – the area of OT is competitive, and CPD can provide value for employees and organisations.

Hunter & Nicol's (2002) systematic review of CPD in the retention and recruitment of staff indicates there is little evidence across the 13 studies reviewed to suggest CPD influences the competitiveness highlighted in the Ham & Fenech (2002) article.

3.3.4 Time and Financial Resources

Ham & Fenech (2002) state that service managers have a responsibility to facilitate CPD, including where needed, financial resources. However, they highlight many CPD activities do not attach a cost and can be freely developed. Time within the workday is a key element of ensuring CPD is accessed. The access to dedicated CPD time is a theme that ran through the majority of studies included in this review. White's (2005) survey of 1205 OTs was the only study to focus solely on time. It indicated the majority of those surveyed found CPD activities beneficial. However, 63% had no dedicated CPD time, with many commenting within the survey that personal time would need to be used for professional development. In contrast, 87% considered that dedicated time was a benefit for

themselves, 82% their service or organisation and 78% for the service user. The survey found that OTs are more likely to have dedicated time if they worked within the education sector, compared to health and social care contexts.

Szucs et al., (2016) implemented a journal club within one organisation for OTs to view the impact of evidence-based practice on their practice. However, the two key barriers to implementing this form of CPD were time and availability of resources (in this case articles). In relation to time, one method of reducing this barrier was to provide effective training in accessing the CPD, so the time spent is used more efficiently. The barrier of accessing resources was approached in a less formal way, as it relied on colleagues who were studying at institutions to use their library access in order to gain permissions to articles. The organisation itself did not have access to journals or studies, putting the onus on the employee. Lizarondo et al. (2011) also explored the use of journal clubs with AHPs. They noted that the participants within their journal club were time-poor, though wanted to engage fully with the programme. Heavy caseloads were a barrier for participants attending fully.

Kranak et al.'s (2022) survey of BCBAs did not state time or financial resources as a barrier to accessing CPD. However, it did indicate that the cost of a CEU conference is one of the least important factors when influencing attendance. This contrasts with the studies associated with OT. Gillis & Carr's (2014) findings indicate that cost is a barrier for behaviour analysts when accessing journals and articles.

The only SaLT study included, by Brebner at al. (2017) did not address the barriers to CPD, instead highlighting the key components which need to be available in order for the CPD to be successfully embedded within an organisation. Communication, relationships, environment and translating knowledge into practice were all identified as key aspects of a successful embedded CPD programme. This implies that time and financial resources would be required to underpin and facilitate these areas.

3.3.5 Accessing Literature and the use of Journal Clubs

Having access to the research and peer-reviewed literature is a recurring theme across all three professions. Pollard (2002) highlights the ethical importance of evidence-based practice, and the strong influence research (and CPD) can have on the professional field. Pollard (2002) continues to highlight that time, as in the previous theme, is a significant barrier to accessing and utilising literature. Szucs et al. (2016) and Lizarondo et al. (2011) both found that journal clubs were

responded to positively by participants. Journal clubs assisted participants in understanding literature (an area of weakness noted in participants at the start of the study), increased evidence-based skills, and being able to refer colleagues to evidence-based sources (Szucs et al., 2016). Due to the journal club in the Szuces et al. (2016) study being guided, the challenge of access and understanding content were reduced. The Lizarondo et al. (2011) study also found similar benefits from a structured approach. The journal club enable participants to put evidence-based research into practice, as the topics studied were closely linked to their daily practice. This was one indicator why the programme was perceived a success by participants.

Kranak et al.'s (2022) survey of behaviour analysts found that 88% of respondents trusted peer-reviewed journals the most (followed by coursework and webinars) for CPD. Behaviour analysts have a positive perception of peer-reviewed articles. Behaviour analysts will typically decide if to engage with material based on its accessibility (pay wall / subscription required) and the reputation of the journal / authors. Kranak et al.'s (2022) findings are supported by Gillis & Carr (2014), who state behaviour analysts have an obligation for contacting scholarly literature to establish the best standard of care, as well as an ethical one. This is confirmed by the BACB's Ethics Code for Behavior Analysts (BACB, 2020). Standard 1.06 Maintaining Competence states that behaviour analysts should actively engage in professional development activities, including reading relevant literature, 2.01 Providing Effective Treatment, based on scientific evidence and 2.13 and 2.14 concerned with Selecting, Designing, and Implementing Assessments / Behavior-Change interventions (BACB, 2020, pp.9-12).

3.3.6 The use of Social Media in CPD

Murray & Ward (2015) reported that social media is viewed positively among OTs surveyed. They identified accessibility, networking, learning and development as advantages of the resource. These findings are supported by Teoh (2023), who through their survey of 49 OTs found six beneficial themes from social media, specifically the platform Facebook. The themes included 1. Acquisition of new ideas, 2. Reinforcement of existing knowledge, 3. Adjustments to prior knowledge, 4. Learning about resources and materials, 5. Learning related to career advancement and 6. Learning related to hidden curriculum (Teoh, 2023). Teoh raises a concern that consumption of CPD on social media is superficial, and can be a passive activity, void of active production and management of knowledge.

Kranak (2022) notes that there has been an increase in behaviour analysts discussing professional issues and disseminating content via social media, content that is not regulated like ACE approved events. Social media is also used for networking among behaviour analysts. However, caution must be shown when seeking advice as the individuals on such sites are not verified or the identify confirmed (Kranak, 2022). Kranak's (2022) survey of behaviour analysts indicated that 40% of respondents felt social media was the least-trusted source of CPD and shared a negative and neutral perception of non-peer-reviewed sources.

3.3.7 Peer Observation and Embedded CPD Models

Only two studies included in the review touched upon peer observation and embedded CPD models. Davys et al.'s (2008) survey and semi-structured interviews of OTs explored the perceptions of peer observations. Benefits of peer observation included the opportunity to develop from experienced colleagues as well as an opportunity to be reflective. For a positive experience, it was felt that the relationship between the observer and the observed is carefully considered. The level of comfort of the observed is directly linked to who is conducting the observation. Frequency of observations and the purpose of observations are key aspects related to how the experience is perceived. Negativity associated with observation was found in all responses, often perceived as anxiety provoking and a stressful experience (Davys et al., 2008, p.249).

Peer observation shares similarities with the concept of an embedded CPD model. For example, the practical benefits of peer observation mean colleagues become less isolated, guarded against practice becoming routine and increased job satisfaction (Davys et al., 2008, p.250). Brebner er al.'s (2017) study of an embedded SaLT CPD model noted the positive impact, enabling participants to have time and opportunity to engage in CPD activities. It also provided a space within the service to develop relationships and an understanding of each other's expertise, skills, and knowledge. Contextually delivered CPD enables knowledge and learning to be achieved in the normal social and operational aspects of the service they are situated (Brebner et al., 2017, p.12).

3.4.1 Comparison of the CPD requirements for maintaining registration

The next part of this chapter documents and compares the ongoing accreditation requirements for BCBAs, UKBA(certs), SaLTs and OTs with their relevant certifying bodies.

3.4.2 Accreditation requirements

Dillenburger, et al. (2014) explored multidisciplinary teamwork in autism, during which they examined the training requirements of key professionals, including SaLTs, BCBAs and OTs. In all three professions, accreditation is through an independent body (BACB or HCPC) and required the practitioner to be educated to at least undergraduate level. In the case of a BCBA, an appropriate master's degree is also required. The BACB and HCPC both required the practitioner to acquire practice training. SaLTs and OTs are required to gain 1 year of practice training and BCBAs 1500 hours with 5% supervised (Dillenburger, et al., 2014, pp.103-104). From 2026, behaviour analysts in the UK will no longer be able to be certified through the BACB (BACB, 2019). However, the UK-SBA, approved by the PSA, will begin UK accreditation. Their equivalent certification to the BCBA is called the UKBA(cert) (UK-SBA, 2023c) and requires those applying for certification to show evidence of meeting the UK-SBA Competence Framework and Professional Supervision (UK-SBA, 2023c). It does not state how long it should take a practitioner to meet the Competence Framework. However, it should be completed within 5 years from the start of supervised practice (UK-SBA, 2023c).

3.4.3 Maintaining accreditation

The HCPC, BACB and UK-SBA require registrants to complete annual CPD to maintain their certification and registration. The RCOT and RCSLT stipulate that members must be registered with the HCPC and in both cases provide materials and guidance for meeting the HCPC standards (RCOT, 2023e; RCSLT, 2023b). Members of the RCSLT are required to reregister annually (RCSLT, 2023c) and those registered with the RCOT are members on a rolling monthly basis, with a requirement to amend their details and status as person circumstances change (RCOT, 2023e). Both bodies put the emphasis on members meeting the requirements of the HCPC, including those related to CPD. The HCPC require registrants to renew their membership every two years biannually.

The process includes four steps:

- Completing a declaration associated with their current practice status (continue to practice, returning to practice or not practicing)
- Confirming they have met the following four areas:
    - Continued to meet the HCPC Standards
    - Continue to be considered to have 'good character'
    - Changes in health which may impact their ability to practice safely and effectively

    - Continued to meet the standards relating to CPD
- Confirm professional indemnity arrangements
- Pay an annual renewal fee (HCPC, 2023e).

The HCPC do not stipulate a set number of hours or credits of CPD to be completed (HCPC, 2017, p.5). However, all registrants are required to maintain an accurate record of their CPD activities, which includes a mixture of learning activities that are linked to current and future practice. They should also demonstrate how the activities link directly to benefiting service users. The HCPC acknowledge the type of CPD activities will depend on the employment of the registrant (Alsop, 2013, pp.18-19). The HCPC will randomly select registrants who have been registered for more than two years for a CPC audit. Each year they will select 2.5% of each profession to submit for auditing. The audit takes the form of a registrant renewing as normal. However, they will also need to submit a CPD Profile, which is a summary of evidence demonstrating how the registrant has met the HCPC standards as well as the forms of CPD taken (HCPC, 2017, p.15).

The BACB's renewal cycle takes place biannually for behaviour analysts, with members required to complete 32 CEUs and acknowledge they have adhered to the Ethics Code for Behaviour Analysts (2020) and the BACB's self-reporting requirements (BACB, 2023, p.39). The BACB stipulates that CEUs must be obtained from an Authorised Continuing Education (ACE) Provider, the BACB, a university or confirmation from a journal regarding a published articles (BACB, 2023, p.40). Out of the 32 CEUs, the behaviour analysts must complete four relating to ethics, with the remaining split between categories of Learning, Teaching or Scholarship:

- Learning – attending events organised by an ACE Provider or the BCBA, or attending behaviour analytical graduate courses
- Teaching – delivering ACE events; teaching behaviour analytical content at an accredited university
- Scholarship – publishing a behaviour analytical article in a peer-reviewed journal; writing a review or decision letter for a peer-reviewed journal

In each case, the content must go beyond the BCBA Task List and coursework which is set to become certified in the first instance with the BACB (BCBA, 2023, p.40). Where a BCBA wishes to supervise the practice of Registered Behaviour Technicians (RBTs), Board Certified Assistant Behaviour Analysts (BCaBA) or trainees pursuing certification they are required to complete three CEUs related to supervision for each biannual cycle of renewal (BCBA, 2023, pp.40-41).

The UK-SBA established their new renewal requirements for the UKBA(cert) in 2023, with the publication of the UKBA(cert) Manual (UK-SBA, 2023c). The UK-SBA require renewing behaviour analysts to:

- Confirm they have always behaved in line with the UK-SBA Code of Professional and Ethical Conduct (2022b)
- Complete the renewal and recertification paperwork before their current certification period expires and pay the annual membership fee
- Complete a minimum of 16 CEUs / CPD units in the required topics
- The renewal cycle is on an annual basis (UK-SBA, 2023c, p.14).

The UK-SBA requires registrants to complete a minimum of two CEUs / CPD units in Ethics and one in Equality, Diversity, and Inclusion. The remaining 13 can be completed in any behaviour analytical topic. The CPD completed should continue to expand the behaviour analyst's skills and current practice (UK-SBA, 2023c, p.14). An overview of each of the professions and the CPD requirements for renewal are displayed in Table 8.

Table 8 – CPD renewal requirements for the HCPC, BACB and UK-SBA.

Organisation	**Frequency**	**CPD requirements**
HCPC	2 years	There is no minimum number of CPD hours or credits to re-register. Instead, registration is dependent on demonstrating a mixture of CPD activities that meet HCPC's standards. A record must be kept of completed CPD. Registrants may be requested to submit a written profile explaining how their CPD has met the standards (HCPC, 2017).
BACB	2 years	32 CEUs required within each re-registration cycle. Including: • 4 in Ethics • 3 in Supervision (if applicable) 50mins of learning = 1 CEU 1 published peer-reviewed journal article = 8 CEUs (BACB, 2023).
UK-SBA	1 year	16 CEUs required within each annual cycle. Including: • 2 in Ethics • 1 in Equality, Diversity, and Inclusion (UK-SBA, 2023c).

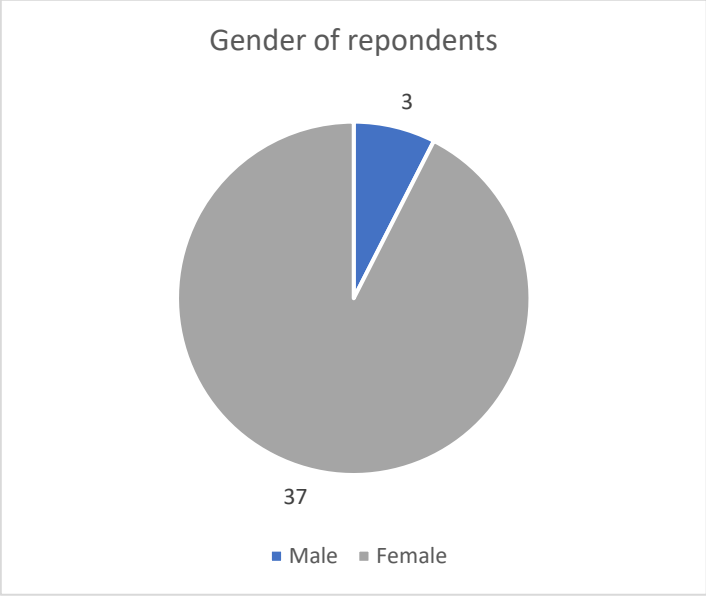
3.5.1 Findings from the Consultation

The consultation is the sixth part of the scoping review process and was in the form of an online survey. The survey ran from May 2023 to July 2023. 42 people completed the survey. However, 2 of those did not meet the criteria for completing their responses as they were not registered or accredited with the HCPC or BACB. These two submissions were removed from the data set reducing the submissions to 40 for analysis.

3.5.2 Demographics and professional registrations of respondents

Respondents were overwhelming female, with only 3 (7.5%) male. This is similar to national data provided by the HCPC on the gender split among registrants, with 96% of SaLTs and 92% of OTs identifying as female (HCPC, 2021, p12). Baires et al.'s (2023) study on pay equity among behaviour analytic practitioners who serve children found that the field is also predominantly female, with 86% of BCBA and BCBA-D registrants being female (within the USA). This would indicate why the survey respondents were mainly female. Figure 3 below displays the gender split for respondents.

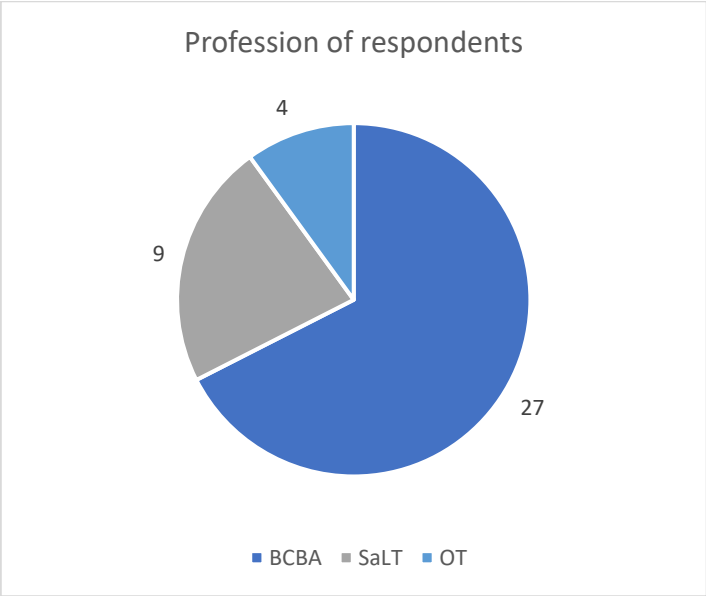
Figure 3 – Pie chart showing the gender split of respondents



Most respondents worked as accredited BCBAs. They accounted for 67.5% of those who completed the survey. The second largest group were SaLTs (22.5%) and then OTs at 10%. OTs were the most difficult group to reach during the consultation. As discussed, such results will

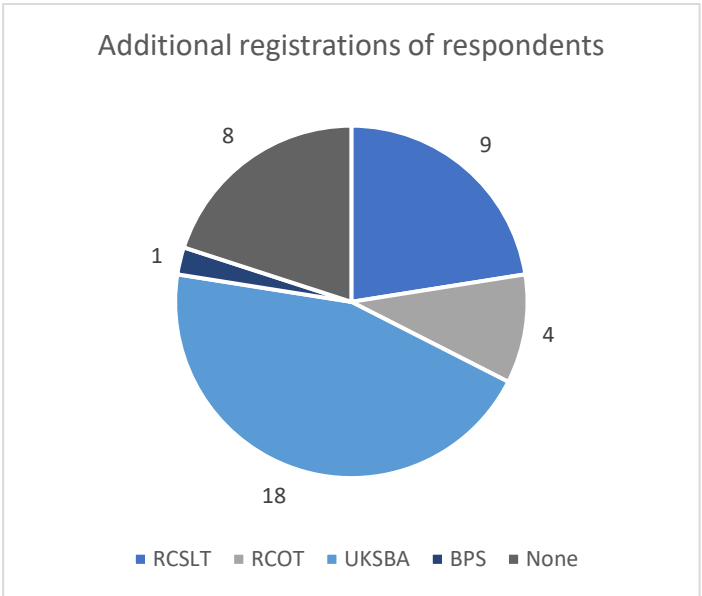
potentially create limitations and bias within the data set. Figure 4 displays the proportion of each profession that responded to the survey.

Figure 4 – A pie chart indicating the professions of respondents



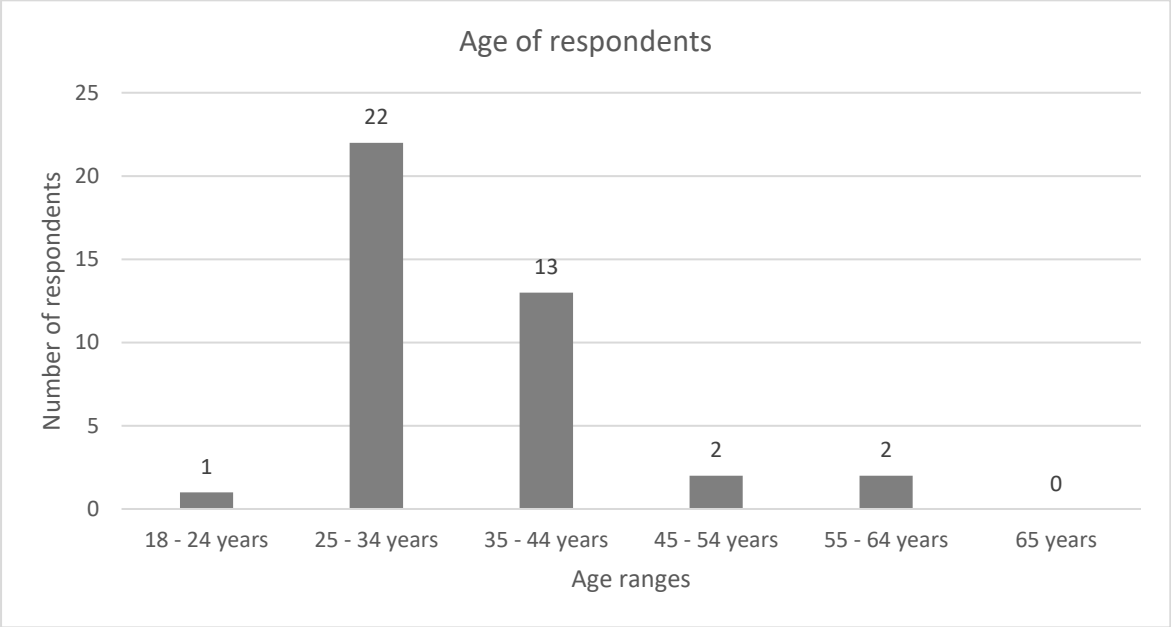
Of those who completed the survey, 32 respondents had additional registrations to their HCPC or BACB professional registrations. 100% of SaLTs and OTs were registered with either the RCOT or RCSLT though not a requirement of either profession. Of those accredited by the BACB, only 66.7% were also registered with the UK-SBA. The results are displayed in Figure 5.

Figure 5 – A pie chart displaying additional registrations of respondents



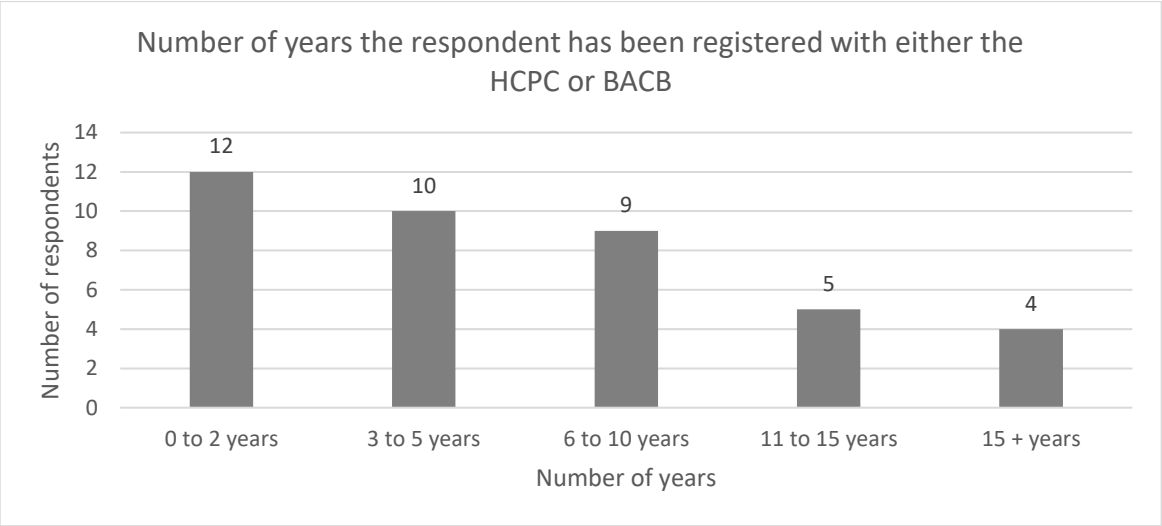
The largest age group of respondents was those aged 25-34 years (22 respondents). The second largest group was 35-44 years (13 respondents). The average age of respondents was 35.5 years. When compared to other available data sets, this is lower. For example, in the Baires et al. (2023) study, the average age of respondents of BCBAs was 37.2 years. The HCPC reported the average age of their registrants of SaLTs is 40 and 42 for OTs (HCPC, 2021, p9). The spread of ages is displayed in Figure 6.

Figure 6 – A bar chart indicating the ages of respondents



Most respondents had been registered with their professional body for 10 years or less (78%). Of that group, 30% were new to their profession, having been registered for 2 years or less. These findings collate with the ages of respondents. Figure 7 displays the length of time respondents have been registered with their professional body.

Figure 7 – A bar chart indicating the length of time each respondent has been registered with their professional body

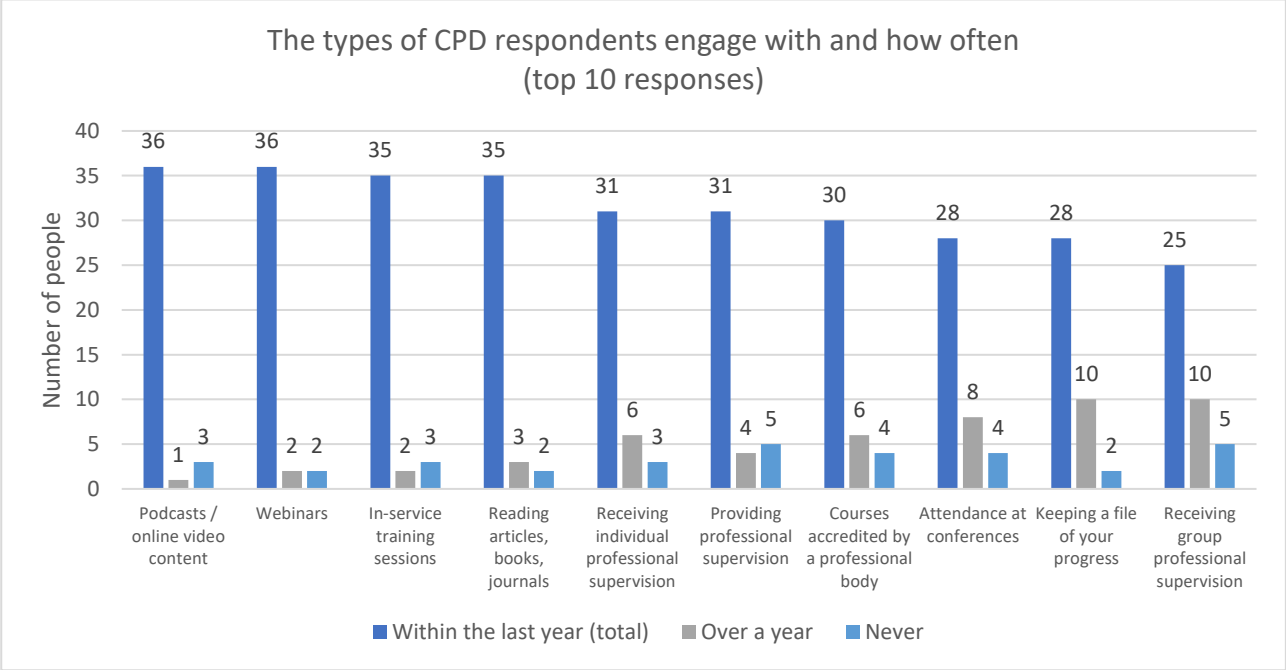


47.5% of respondents currently worked within the school system, either in a mainstream or specialist setting. 82.5% of respondents stated they either currently work in a school or have done in the past. 27.5% reported to deliver support in a client's own home, while 20% worked within an early years or nursery setting. 5% of respondents worked within the NHS. Most respondents (80%) had experience working with school aged children. A quarter of respondents had experience of working with clients aged over 65 years.

3.5.3 Respondents' engagement with CPD

Four questions focused on the respondents' engagement with CPD. Respondents were asked to select how often they engaged with various types of CPD, responding 'within the last 6 months', 'Within the last year', 'Over a year' or 'Never'. The bar chart in figure 8 displays the responses for the top 10 forms of CPD engaged with the most frequently.

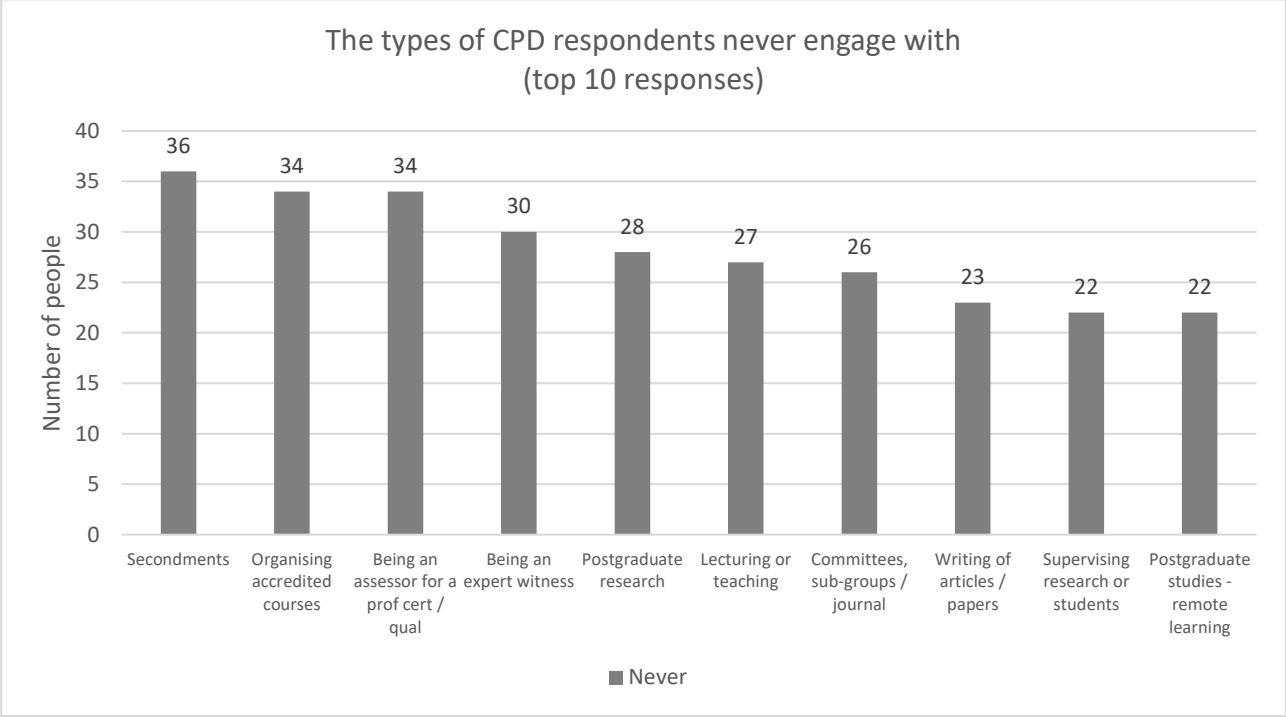
Figure 8 – A bar chart showing the types of CPD respondents engage with and how often



The top four most frequently engaged with CPD included podcasts / online video content, webinars, in-service training and reading articles, books, and journals (within the last year: 35 to 36 responses each). These were followed by receiving and providing supervision and attending accredited courses by a professional body, such as CEUs accredited by ACE (within the last year: 30 to 31 responses each). The final three most frequently accessed CPD were attending conferences, keeping a file of progress, and receiving group professional supervision (within the last year: 25 to 28 responses each).

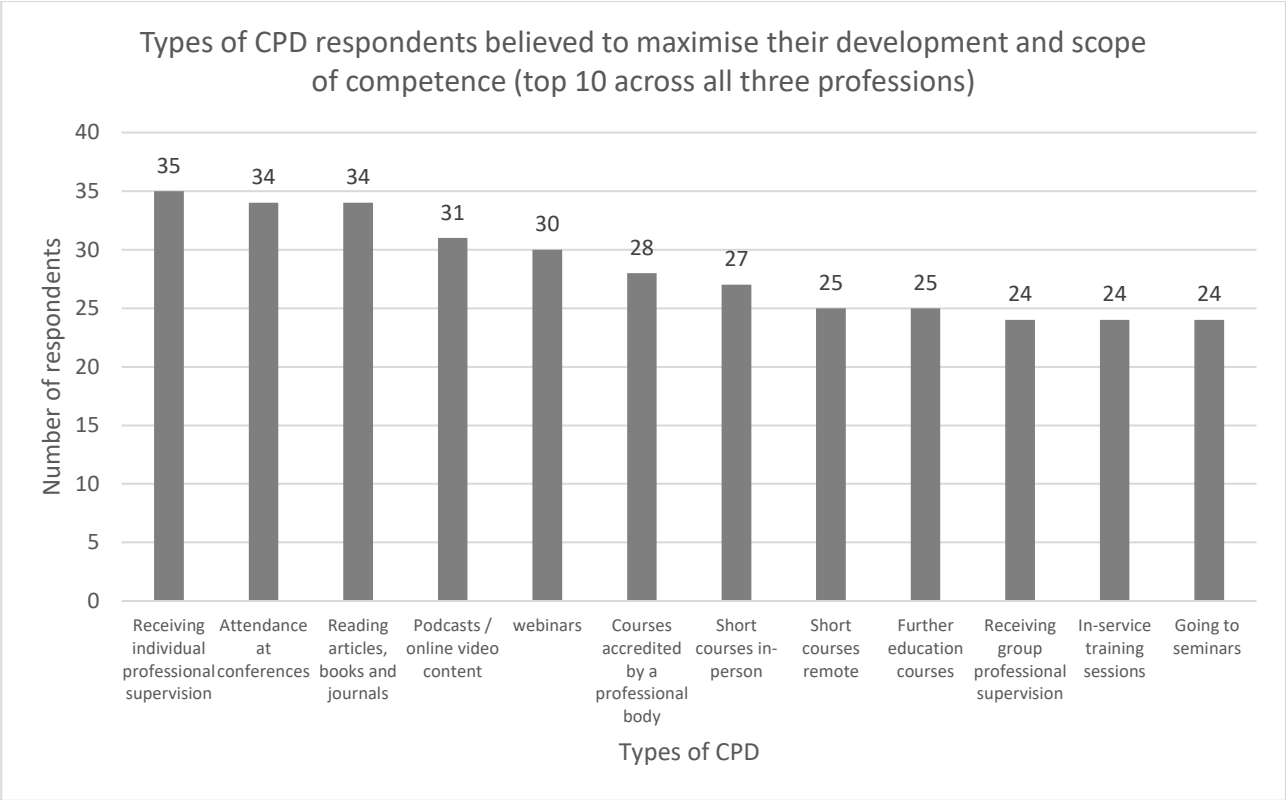
Figure 9 shows the types of CPD respondents never engaged with. Taking part in a secondment was the least engaged with form of CPD of those who responded to the consultation (36 responses). The top 10 least engaged with CPD all share similarities. Their frequency and accessibility are likely to be more challenging or the opportunities to engage with them less frequent. For example, postgraduate studies, research, and the writing of articles are activities which require large amounts of time and not frequently conducted by individuals, unless they specifically worked in an academic institution. The data suggests that most respondents work directly with service users in a school / educational environment, not enabling the access required to engage in such CPD activities.

Figure 9 – A bar chart displaying the types of CPD respondents never engage with



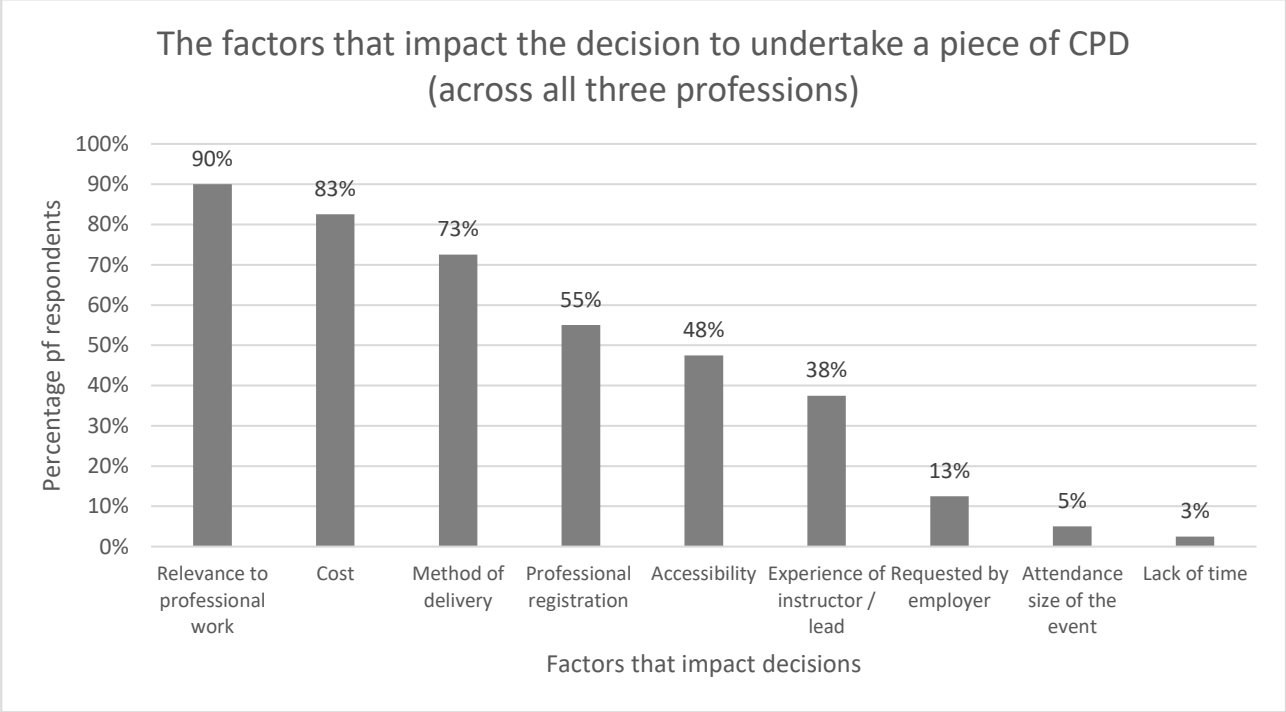
Those who completed the survey were asked to identify the CPD activities they felt would maximise their competence and development, the results are displayed in Figure 10. The CPD activities identified by respondents included receiving individual supervision, attendance at conferences, reading articles, books and journals, podcasts / online video content and webinars. Group supervision also featured within the top 10. The remaining five out of six CPD activities were directly related to training courses or further education, a more formal form of CPD.

Figure 10 – A bar chart displaying the CPD respondents believed to maximise their development and scope of competence



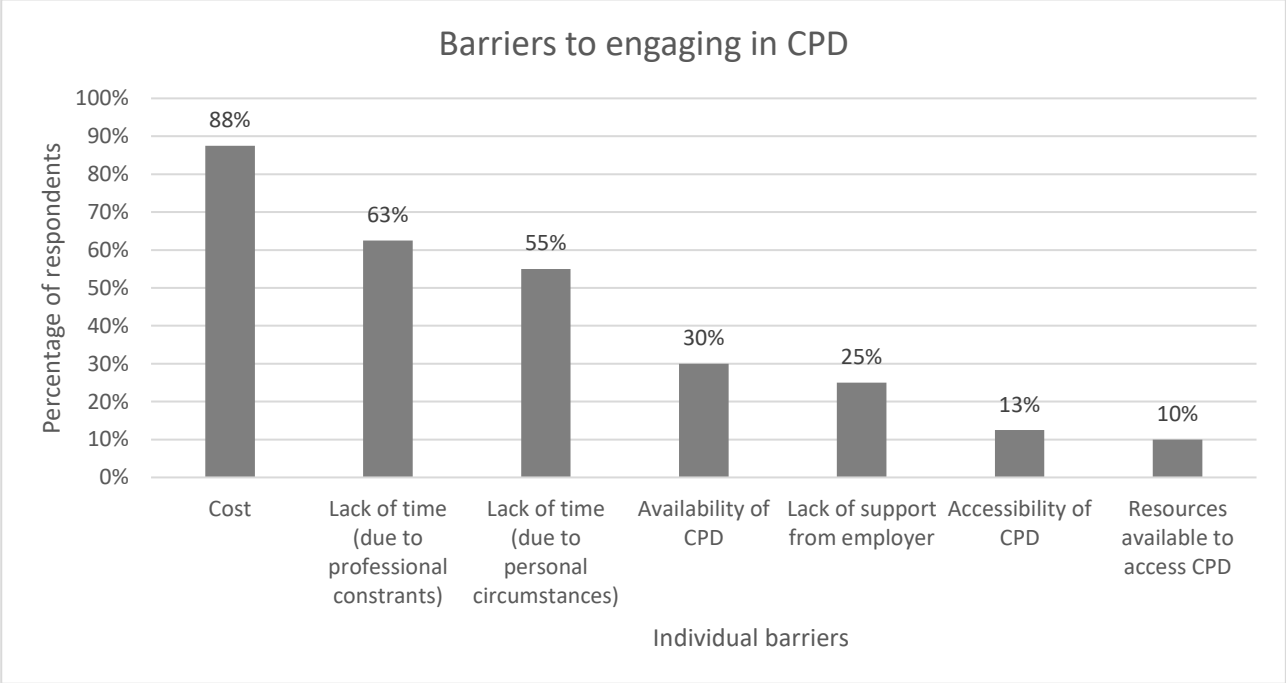
The factors impacting the decision to undertake a piece of CPD are displayed in Figure 11. 36 of the 40 respondents identified the relevance of the CPD to their professional work being the key factor to deciding whether to undertake a piece of CPD or not. The cost associated with the CPD was the second key factor in the decision making, followed by the method of delivery. The most frequently access type of delivery is remote or online activity, based on the data retrieved in Figure 8.

Figure 11 – A bar chart displaying the factors that impact the decision to undertake a piece of CPD



100% of SaLTs and OTs identified cost as the main barrier when engaging with CPD. 22 of the 27 BCBAs responding, also identified cost as the main barrier. All but 7 BCBAs noted allocating time to access CPD being a barrier. Across all professions, cost and a lack of time were the main barriers, accounting for 88% and 63% of responses. 25% of overall responses noted a lack of support from their employer to undertake CPD. However, these responses all came from BCBAs. 10 out of the 27 felt the lack of their employer's support was a barrier to accessing CPD. Accessibility and the resources available to access CPD were less of a concern for those completing the consultation. However, location and if any respondents considered themselves to be disabled was not accounted for and would likely impact the importance of both answers. The data also did not consider if respondents were self-employed. The full results are displayed in Figure 12.

Figure 12 – A bar chart displaying responses to barriers when engaging in CPD



CHAPTER 4. DISCUSSION

This chapter aims to analyse the findings that are reported within the Results chapter. It will explore the implications of these findings in relation to the research question this paper seeks to answer. The chapter will also address the limitations of this paper and seek to suggest areas of further research and recommendations.

4.1 Review of the study aims and questions

This scoping review sought to compare the accreditation requirements of BCBAs, SaLTs and OTs in the UK, aiming to explore what could be learnt among the three professions with regards to CPD and ongoing accreditation. The scoping review aimed to answer the following research questions:

How do the requirements for ongoing professional certification with registered bodies compare between BCBAs, SaLT) and occupational therapists OT?

a. How do BCBAs, SLTs and OTs use ongoing professional development to specialise within their field?
b. As the BACB moves to cease certification outside North America, what can behaviour analysts in the UK learn from colleagues in similar professional roles regarding ongoing accreditation?

4.2.1 Key findings

Of the 15 studies included in the final review, with ten relating to OT, two in relation to behaviour analysis, two addressing AHPs in general and one within the field of SaLT. The number of studies were disproportionately higher in the field of OT compared to behaviour analysis and SaLT. However, this is the reverse when compared to the results of the consultation. The consultation phase of the scoping review reached 40 respondents, divided between 27 behaviour analysts, 9 SaLTs and 4 OTs. The original intention was to focus articles within the U.K only. However, as such searches returned very limited number of studies, the scope of the review increased to include international studies and papers. This resulted in eight of the studies addressing CPD from outside the UK. Though these studies did not directly address the CPD of UK based professionals, they did give a perspective of the wider experiences and challenges within each profession.

4.2.2 Reaccreditation requirements

The scoping review focused on the CPD practices of each profession, rather than the maintenance requirements of the BACB and HCPC. These were easily accessible from the awarding body's website and registration documentation. All three professions have a reaccreditation requirement, based on the registrant completing a set amount of professional development within a renewal cycle. In the case of HCPC registrants, the amount of CPD is not specified, rather this is based on the professional evidencing they have met the published Standards (HCPC, 2016). The BACB and UK-SBA both specify a set number of hours or CPD units that need to be completed. Rather than set against Standards, as in the case for HCPC professionals, the CPD must sit within one of three categories and be accredited by ACE (or through the publication of research / peer-reviewed journal articles) (BACB, 2023, p.40; UK-SBA, 2023c, p.14). The renewal cycle for the BACB and HCPC is every two years, and annually for the UK-SBA. This is reflected in the number of CPD units required when renewing for the UK-SBA. 16 CPD units are required, compared to 32 for the BCBA (UK-SBA, 2023c, p.14).

Though both registering bodies operate a different monitoring system with regards to CPD, both have quality assurance measures and controls in place. The HCPC look to review the CPD of 2.5% of each profession regulated by the body (HCPC, 2023e). If selected, the individual would share a portfolio of their CPD for auditing by the HCPC. The percentage of BCBAs audited by the BACB is not published. However, from the available data it would appear that evidence of completed CEUs would be submitted for the BACB to review (BACB, 2023). The UK-SBA has not yet shared details of any auditing processes and would benefit from following similar procedures to that of the HCPC or BACB to ensure parity between accreditation and professions.

What constitutes CPD among the different bodies varies. The HCPC has a broad catchment of activities, which fall under four categories: work-based learning, professional activity, formal education, and self-directed learning (HCPC, 2023f). It goes on to state 'any activity from which you learn or develop professionally can be considered eligible for CPD' (HCPC, 2023f). It does not indicate a set number of minutes or hours a piece of CPD should run for. This could create inconsistencies in what one professional may consider CPD to another, though the HCPC does offer a comprehensive list of examples on its website (HCPC, 2023f). In contrast, the BACB are more directive in what constitutes CPD. CEUs used for maintaining registration must be obtained by an ACE provider, university course (of behaviour analytical nature), BACB event or through the publication of an article within a peer-reviewed journal (BACB, 2023). One CEU is equal to 50

minutes of instruction, which is determined by the Office of Postsecondary Education (OPE), part of the USA's Department of Education. One publication is the equivalent to eight CEUs (BACB, 2023, p.40). Though such measures are in place, it does not stop BCABs from completing other CPD activities, though they cannot be used for maintaining registration with the BACB. Even though the prescribed nature of the BACB could be viewed as limiting, 90% of respondents in the consultation noted they seek CPD in relation to their professional needs, rather than professional registration requirements (55%). This is in slight contradiction to Kranak et al.'s (2022) survey of behaviour analysts that indicated the majority chose their CPD based on individual interests rather than client needs.

Such findings highlight the lack of impact measures broadly for CPD, professionals and service users / clients / learners. None of the articles included in this review addressed the impact of CPD for the populations being served. Nor do they measure the impact more widely, for the individual engaging in the CPD or the organisation they belong to. However, this was not the aim of this review and could be an opportunity for future investigations and research.

4.2.3 Perception of CPD among professions

There is a clear shared understanding that CPD is important for maintaining a professional's scope of competence, as well as being of value to organisation and for the wider profession. This is reflected in the fact ongoing accreditation requires the professional to engage in CPD activities to stay registered. Individuals across the three professions overall shared that CPD is a valuable activity. Penny (2004) found that 81% of OTs responding to their survey rated CPD 'very important' with the remaining stating it was 'important', with 90% agreeing that it should form part of the registration of OTs. These results are in line with the larger survey conducted by White (2005), which found 87% found CPD to have a positive benefit. Brebner's (2017) study regarding an embedded SaLT development programme did not directly address the perceptions of CPD. However, from the results of their programme, it can be interpreted that there is a positive perception of CPD among SaLTs. Kranak et al.'s (2022) survey of behaviour analysts shares the views of colleagues from SaLT and OT backgrounds. Behaviour Analysts generally value advancing their knowledge through CPD activities. The consultation did not address the perception of CPD among respondents. However, when asked which form of CPD maximised their development and scope of competence, all respondents answered with multiple responses indicating and inferring that CPD is an area of importance.

4.2.4 Affordability and Time

A clear theme across all three professions was related to the cost associated with CPD and the time needed to engage in activities. Many articles within the scoping review included time and costs as a significant barrier for professionals (Kranak et al., 2022; White, 2005; Ham & Fenech, 2002; Pollard, 2002). The consultation survey supported these findings with cost and the lack of time (professional circumstances) being highest selected barriers for accessing CPD across all three professions.

The studies included in the scoping review offer some possible solutions to these barriers, which in every case could be utilised by colleagues from different disciplines. Access to peer-reviewed articles and journals were a shared form of CPD across SaLTs, OTs and behaviour analysts. Pollard (2002) stated the importance of the relationship between research and practice, and the important role CPD played in this for OTs, as well as Kranak et al. (2002) found that 88% of behaviour analysts trusted peer-reviewed articles the most. The consultation within the scoping review confirmed this, with 34 respondents across all three professions stating journals and articles were important in maximizing their development, scope of competence and had engaged with them within the last year.

Gillis & Carr (2014) created a behaviour analytic reading list for behaviour analysts, sourcing and annotating a bibliography of relevant studies to behavioural practitioners working in the area of developmental disabilities. 15 articles were identified and of them 33% were from the Journal of Applied Behavior Analysis and 53% were published in the Behavior Analysis in Practice journal. A subscription to both journals would cost $90 per annum, though many of the recent publications are free from PubMed Central (Gillis & Carr, 2014, p.14). The method used by Gillis & Carr (2014) could be adapted and replicated across the other two professions (or specialisms within a profession), creating a comprehensive and evidence-based reading list. Such a list would enable professionals to engage in the literature, save time on researching and cost associated with multiple journal subscriptions. A draw back to the Gillis & Carr (2014) approach is the ongoing relevance of the recommended reading list. It is expected that the recommended reading would require a renewal schedule to ensure the most up-to-date and relevant research is included. However, individual organisations or the wider professional body of the HCPC could seek to provide such a list. White (2005) states the known benefits CPD brings not only to the individual, but the organisation they work for and their wider profession, which should motivate professional bodies and employers to invest in such a resource.

Gillis & Carr's (2014) approach is one example from the literature which can help facilitate and overcome the barriers of time and affordability. There are several examples of embedded CPD within organisations facilitated by the employer. Davy et al.'s (2008) questionnaire of OTs regarding peer observation is one successful example of how CPD can be facilitated within the work force and client / service user delivery. Lizarondo et al. (2011) and Szucs et al. (2016) both provide positive outcomes associated with employer facilitated journal clubs for CPD. Brebner et al. (2017) identified four themes that needed to be addressed for a successful service-based model for CPD, which included communication, relationships, environment and translating knowledge into practice. Though Brebner et al.'s (2017) study has poor generalisability to other contexts and involved a small sample size, there is an opportunity for wider professions to replicate parts of this study and incorporate learning from such studies as Lizarondo et al. (2011), Davy et al. (2008), Szucs et al. (2016) and Gillis & Carr's (2014) approach to accessing literature. Such an organisational approach to CPD, providing the resources, space and time, should not distract from the core principle that CPD should be driven by the individual, as part of their own development plan (Ham & Fenech, 2002).

Social media can also play a role in overcoming the barriers of affordability and time. Social media was addressed in several of the studies included in the scoping review (Murray & Ward, 2015; Berndt et al., 2017; Kranak et al., 2022; Teoh, 2023). Berndt et al. (2017) found technology based CPD options to have high utility, and strengths with regards to cost and time when professionals were working in rural areas. Murray & Ward (2015) supported these findings, sharing that OTs predominantly showed a positive attitude towards CPD in the form of social media material, though warned more training and structured teaching were required for professionals to use it more widely. Kranak et al.'s (2022) findings support the caution highlighted by Murray & Ward (2015), who also warns that there is currently no process in place to vet non-peer-reviewed sources of CPD online. Such caution supports Kranak et al.'s (2022) findings that online sources of CPD (social media groups for example) are the least trusted source and least likely to be used for CEU approved content. Within the consultation survey of the scoping review, it was found that content accessed online (webinars and podcasts) were both within the top five considered to maximise respondent's professional development and scope of competence. However, webinars and podcasts can both be accredited by ACE or other organisations such as the CPD Certification Service.

4.3 Limitations

There were limitations associated with this scoping review. The first limitation relates to the stage six of the scoping review, the consultation. Due to the limited time frame associated with the master's

degree the consultation was designed before the themes were identified from the scoping review. This limited the benefit of the consultation. However, several lines of discussion were generated from this stage of the scoping review.

As previously noted, the scoping review was conducted by a sole researcher, resulting in a limited scale to the research, as well as the opportunity for bias within the activities conducted. This limitation was accounted for in the framework used. However, it did limit what could be achieved in the time allocated for the study.

Finally, the researcher themselves were engaging in a masters relating to ABA and worked professionally in the field of behaviour analysis and education. This standpoint may have resulted in a lack of insights into the fields of OT and SaLT and could have resulted in the lower number of OTs completing the consultation survey. If the search were to be coproduced by a behaviour analyst, SaLT and OT, there would more likely have been a greater number of respondents to the consultation survey from the other professions.

4.4 Further Research and Recommendations

The scoping review touched upon many areas of CPD and highlighted gaps within the research, as well as areas that would benefit from further study. None of the studies included in the review explored the impact or value of CPD for the service users the professionals served. White's (2005) survey asked OT's their thoughts on the value of CPD. Considering the high value placed upon CPD, particularly in relation to ongoing accreditation, financial cost, and time, knowing the impact of CPD seems valuable information to for professional decision making.

The embedded approach as one theme which has merged from this scoping review raises questions around directive and self-directive CPD. As explored, CPD has benefits from the individual, employer / organisation and wider profession. However, to what extent are the professional views of directive CPD from an employer or accredited body? Some conflict of findings were found in this review based on why an individual engages in CPD (Kranak et al., 2022; Shortall, 2008; Davys et al., 2008), and fully exploring this was outside the scope of this study.

Only two of the 15 studies were published after the start of the COVID-19 in 2020. It is highly publicised that the pandemic changed working habits for much of the population, including the upsurge in distant working, working from home, and the use of technology. Online learning and CPD

is included within this scoping review. However, it would be prudent to explore how the pandemic impacted professionals' views of CPD and accessibility.

CHAPTER 5. CONCLUSION

This scoping review sought to answer the question ‘what can behaviour analysts in the UK learn from colleagues in similar professional roles with regards to ongoing accreditation?’. It was found that similar challenges and barriers are faced across all three disciplines, regardless of the professional being an OT, SaLT, or behaviour analyst. The major influencing factors to CPD involved the environment a professional was employed, rather than the guiding factors from an awarding body. From the literature and published information available, the HCPC, BACB, RCSLT and RCOT all see CPD as a crucial part in staying competent within their professions. Each professional, behaviour analyst, SaLT, and OT all value CPD as part of their professional life and journey. All are tied to registry bodies, which monitor and assess quality of their registrants, though in different means.

What is also clear from the scoping review and consultation survey, is that all three professions are faced with the same challenges of affordability and time, arguably the most valuable resources in any sector. The challenges appear to be widespread and vary dependent on the employer, rather than the profession or body they are registered with. The employer’s commitment to CPD will be the influencing factor in how CPD is used to improve, increase, and embed competence. They are one of the gatekeepers to accessing CPD for many professions. The scoping review highlighted the importance of CPD for the individual, employer / organisation, and the wider profession.

Behaviour analysts and organisations who employ behaviour analysts could learn from similar professions as they also seek to overcome the same challenges. Solutions such as the use of embedded CPD models and being open to the cautionary use of social media as a channel for CPD opportunities are two ways in which the profession can learn from colleagues. All three professions, based on the review completed within this study, lack the research in connecting the impact of CPD for service users, learners, or clients. This must be the core motivation for anyone who wants to improve and develop, and the ultimate measure of the value for CPD.

CHAPTER 6. REFERENCES

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CHAPTER 7. APPENDIX

Appendix A: Respondent Consent Form and Stakeholder Survey

Consent Form (incorporated into the online survey)

Title of study: Comparing the requirements for ongoing professional certification with registered bodies for Board Certified Behavior Analysts (BCBAs), Speech & Language Therapists (SaLTs) and Occupational Therapists (OTs).

Principal researcher: David Anthony (Email: danthony01@qub.ac.uk)

Please check each box:

☐ I confirm that I have read and understand the information sheet dated 12/01/2023, version 01 for the above study. I have had the opportunity to ask questions, and these have been answered fully.
☐ I understand that my participation is voluntary, and I am free to withdraw up to the point of submitting my survey responses. After this point it will not be possible to withdraw from the study. All data is collected anonymously.
☐ I understand the study is being conducted by researchers from Queen's University Belfast and that my personal information will be held securely on university premises and handled in accordance with the provisions of the Data Protection Act 2018.
☐ I understand that data collected as part of this study may be looked at by authorised individuals from Queen's University Belfast [and regulatory authorities] where it is relevant to my taking part in this research. I give permission for these individuals to have access to this information.
☐ I understand that the information I provide may be published as a report. Confidentiality and anonymity will be maintained, and it will not be possible to identify me from any publications.
☐ I agree to take part in the above study.

1. **Which of the following describes your professional registration?**
   - Board Certified Behavior Analyst (BCBA) (registered with the Behavior Analysts Certification Board)
   - Speech and Language Therapist registered with the Health and Care Professions Council (HCPC)
   - Occupational Therapist registered with the Health and Care Professions Council (HCPC)
   - None of the above

2. **In addition to the above, are you registered with any of the following organisations:**
    - Royal College of Speech and Language Therapists
    - Royal College of Occupational Therapists
    - UK Society for Behaviour Analysis (UKSBA)
    - Other(s):

3. **What is your age group?**
    - 18 to 24 years
    - 25 to 34 years
    - 35 to 44 years
    - 45 to 54 years
    - 55 to 64 years
    - 65 or over

4. **What is your gender?**
    - Female
    - Male
    - Non-binary
    - A gender not listed here
    - Prefer not to say

5. **How long have you been registered / certified with the BCBA / HCPC?**
    - 0 to 2 years
    - 3 to 5 years
    - 6 to 10 years
    - 11 to 15 years
    - 15+ years

6. **Which of the following settings do you current work in?**
    - Mainstream and special schools
    - Mainstream and specialist colleges
    - Residential schools / colleges
    - Early years / Nursery / Pre-school
    - Pupil referral units, alternative prevision
    - Justice system – courtrooms, prisons, young offenders' institutions
    - Children's centres
    - Day centres
    - Clients' homes
    - Care homes – elderly care, nursing, dementia care
    - Care homes – children and up to the age of 25 years
    - Hospitals
    - GP surgeries or medical centres
    - Within homes of service users
    - Within your own home
    - Sports or leisure centres
    - Rehabilitation centres
    - Local authority / Local Government
    - Not for profit

- Not working
- Other(s):

7. **Which of the following settings have you previously worked in?**
   - Mainstream and special schools
   - Mainstream and specialist colleges
   - Residential schools / colleges
   - Early years / Nursery / Pre-school
   - Pupil referral units, alternative prevision
   - Justice system – courtrooms, prisons, young offenders' institutions
   - Children's centres
   - Day centres
   - Clients' homes
   - Care homes – elderly care, nursing, dementia care
   - Care homes – children and up to the age of 25 years
   - Hospitals
   - GP surgeries or medical centres
   - Within homes of service users
   - Within your own home
   - Sports or leisure centres
   - Rehabilitation centres
   - Local authority / Local Government
   - Not for profit
   - Organisational behaviour management (OBM)
   - Other(s):

8. **Which age ranges are you experienced working with?**
   - 0 to 3 years
   - 4 to 7 years
   - 8 to 11 years
   - 12 to 16 years
   - 17 to 19 years
   - 20 to 25 years
   - Adults aged 26 years to 65 years
   - Over 65 years
   - Age of service users not applicable to my field of work

9. **What types of continuing professional development (CPD) / continuing education (CE) do you engage with and how often? (Last 6 months, within the last year, over a year, never)**

Work-based learning:

- Reflective practice – writing reflections or case studies
- Receiving individual professional supervision
- Receiving group professional supervision
- Providing professional supervision
- Receiving mentoring
- Coaching from others
- Secondments

- Journal Club
- Self-assessment / audit questionnaires
- Representative on a committee
- Work shadowing
- In-service training sessions

Professional activity:

- Presenting at conferences
- Lecturing or teaching
- Being an assessor or examiner for a professional certification / qualification
- Organising accredited courses
- Supervising research or students
- Providing mentoring or coaching
- Leading on specialist committees, sub-groups, or journal clubs
- Being an expert witness

Formal education:

- Graduate and postgraduate studies – remote learning
- Graduate and postgraduate studies – in-person learning
- Postgraduate research degree
- Further educational courses
- Research
- Writing of articles or papers
- Short courses – remote
- Short courses – in-person
- Courses accredited by a professional body (such as CEUs)
- Attendance at conferences
- Going to seminars

Self-directed learning:

- Reading articles, books, journals
- Podcasts / online video content
- Webinars
- Keeping a file of your progress

10. What types of CPD / CE do you believe maximise your development and scope of competence within your field?

Work-based learning:

- Reflective practice – writing reflections or case studies
- Receiving individual professional supervision
- Receiving group professional supervision
- Providing professional supervision
- Receiving mentoring
- Coaching from others
- Secondments
- Journal Club
- Self-assessment / audit questionnaires
- Representative on a committee
- Work shadowing

- In-service training sessions

Professional activity:

- Presenting at conferences
- Lecturing or teaching
- Being an assessor or examiner for a professional certification / qualification
- Organising accredited courses
- Supervising research or students
- Providing mentoring or coaching
- Leading on specialist committees, sub-groups, or journal clubs
- Being an expert witness

Formal education:

- Graduate and postgraduate studies – remote learning
- Graduate and postgraduate studies – in-person learning
- Postgraduate research degree
- Further educational courses
- Research
- Writing of articles or papers
- Short courses – remote
- Short courses – in-person
- Courses accredited by a professional body (such as CEUs)
- Attendance at conferences
- Going to seminars

Self-directed learning:

- Reading articles, books, journals
- Podcasts / online video content
- Webinars
- Keeping a file of your progress

11. Which of the following factors impact your decision to engage in a piece of CPD / CE?

- Attendance size of event
- Method of delivery (online or in-person)
- Relevance to professional work / clients
- Instructor / lead experience
- Accessibility
- Cost
- Requested by employer
- Reregistration or accreditation to a professional body

12. What barriers are there to engaging in CPD / CE?

- Costs associated with CPD / CE
- Allocating time to CPD / CE due to personal circumstances
- Allocating time to CPD / CE due to professional circumstances (lack of staff)
- Availability of CPD / CE in your field or level of experience
- Accessibility of CPD / CE
- Resources available to access CPD / CE (such as technology, registration, transport)
- Lack of supervisor / employer support

Appendix B: Ethics Approval

QUEEN'S UNIVERSITY BELFAST

School of Social Sciences,
Education and Social Work
69/71 University Street
Belfast
BT7 1HL
TEL: +44 (0) 28 9097 ****/5941
www.qub.ac.uk

Memorandum

REF 036_2223

To David Anthony

From Mel Engman, SREC Chair

Date 21/04/2023

Distribution Supervisor – Louise Begley

Subject: How do the requirements for ongoing professional certification with registered bodies compare between BCBAs, speech and language therapists (SaLT) and occupational therapists (OT)?

The School of Social Sciences, Education and Social Work Ethics Committee has reviewed your proposed study and has granted approval for you to proceed.

- It is important to ensure that you follow the procedures outlined in your submission. Any departure from these may require additional ethical approval.

Note for the principal investigator: it is the responsibility of the investigator to add any research projects involving human participants, their material or data, to the University's Human Subjects Database for insurance purposes. **The reference number above should be cited in the title line**. (The Human Subjects Database is accessible through QOL under 'My Research').

Where this approval relates to a student's study, whether a dissertation or study, a note should be made to the reference number within their study and this memo should be included within the appendices.

Please ensure that the Committee is notified when the study is complete. Pseudonymised data is to be kept for a minimum period of 5 years within a safe QUB repository from the date of completion onwards, such as Q-Drive.

The Committee wishes you every success with your research.

Mel Engman, Chair, SSESW SREC

Appendix C: Recruitment Flyer

Appendix D: Participant Information Sheet

Participant Information Sheet

Title of study: Comparing the requirements for ongoing professional certification with registered bodies for Board Certified Behavior Analysts (BCBAs), Speech & Language Therapists (SaLTs) and Occupational Therapists (OTs).

1. Invitation Paragraph

You are being invited to take part in a research study. Before you decide whether or not to take part it is important that you understand why the research is being done and what it will involve. Please take the time to read the following information carefully and discuss it with others if you wish. Please ask us if there is anything that is not clear or if you would like more information. Thank you for reading this.

2. What is the purpose of the study?

The aim of this study is to compare the accreditation requirements of BCBAs, SaLTs and OTs in England. Research has been conducted comparing the training for these roles and initial accreditation requirements. However, no known research exists in comparing the requirements for ongoing accreditation. Such research would be timely due to the Behavior Analyst Certification Board (BACB) based in North America ceasing international accreditation for the UK in 2025. Multidisciplinary and interdisciplinary teams are frequently including colleagues from across these three professions, particularly within special educational needs, health and social care. Through completing this study, I aim to answer the following questions:

How do the requirements for ongoing professional certification with registered bodies compare between BCBAs, speech and language therapists (SaLT) and occupational therapists (OT)?

a. How do BCBAs, SLTs and OTs use ongoing professional development to specialise within their field?
b. As the BACB moves to cease certification outside North America, what can behaviour analysts in the UK learn from colleagues in similar professional roles with regards to ongoing accreditation?

3. Why have I been chosen?

You have been invited to take part in this research as you will be either a BCBA, and Speech & Language Therapist or Occupational Therapist registered with the Health Care Professional Council (HCPC) and based in the United Kingdom. The research will aim to reach a minimum of 30 professionals from each of these three professions.

4. Do I have to take part?

No. It is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep and you will be asked to sign a consent form. If you choose to take part, your responses will be anonymous, and you can change your mind up to the point of submitting your survey answers. A decision to withdraw will not have any detrimental impact on you.

5. What will happen to me if I take part?

As a participant, your data will be used for the purpose of a master's dissertation at Queen's University Belfast. The anonymized data may be used in future publications within the parameters of the university and will always remain confidential. The online survey can be completed at a convenient time and place. The questions consist of multiple-choice responses that should be answered to the participant's complete knowledge and honesty. The survey is self-guided and should take no longer than 10 minutes to complete. No personal identifying information will be requested by the survey and responses are anonymous.

6. What are the possible risks or disadvantages of taking part?

There are no anticipated disadvantages or risks associated with taking part in this study.

7. What are the possible benefits of taking part?

There are no known individual benefits of taking part in this study. However, your results will contribute to research needed in this particular area.

8. What if something goes wrong?

As the nature of the questionnaire there are no foreseeable risks. If you have any concerns about any aspects of the study, you can contact the researcher, David Anthony (Email: danthony01@qub.ac.uk). Should you remain unhappy and wish to make a formal complaint, you can contact the Research Governance Team at Queen's University Belfast (Telephone: 028 9097 2529; Email: researchgovernance@qub.ac.uk).

9. Will my taking part in this study be kept confidential?

All information which is collected about you during the course of the research will always be kept strictly confidential. Raw data will be kept up until the dissertation paper is submitted to the University, and for up to five years after this date. The questionnaire is submitted anonymously and no personal identifying information will be collected. Your consent will be requested so permission is granted:

- For your engagement in the survey and the collection of data.
- For the publication of your anonymous data given through the completed dissertation research paper.
- For the secure storing of data for the duration of the research study and five years thereafter.

10. What will happen to the results of the research?

The results will be shared via a dissertation paper and possible future publication. A summary of the results at the end of the study will be made available upon request. A copy of this summary will be available from the researcher (Email: Danthony01@qub.ac.uk).

11. Who is organising and funding the research?

The research is being organised by the principal researcher David Anthony and supervised by Louise Begley. The research will form part of the researcher's completion of a master's dissertation at Queen's University Belfast.

12. Who has reviewed the study?

This study has been reviewed by the Faculty of Social Sciences, Education and Social Work Ethics Committee.

13. Contact for Further Information

For further information relating to this study, please contact the principal researcher David Anthony (Email: danthony01@qub.ac.uk). The supervisor for this piece of research is Louise Begley (l.begley@qub.ac.uk).

This research will be conducted in compliance with data protection legislation. For more information about how we look after your information, how to access your rights and who to contact if you have any queries or concerns about data protection please visit the Queen's University Belfast website –

www.qub.ac.uk/privacynotice/Research/ListofResearchPrivacyNotices/PrivacyNoticeforResearchParticipants

Thank you for your interest in this study and for taking the time to read through this information sheet.