Sources of information used by paediatric occupational therapists in Chile
to make clinical decisions

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A thesis submitted for the degree of Master of Philosophy at
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Abstract

Introduction

Evidence-based practice (EBP) is a global movement that fosters the use of research evidence, clinical expertise, the patient’s values and circumstances, and information from the practice context. It aims to support high quality practice through providing and using sound evidence for decision making, thereby enhancing the client’s outcomes. Occupational therapists have been challenged to advance the profession and adopt EBP as a global approach. Although EBP has been increasingly promoted and applied in occupational therapy over the last twenty years, there is a scarcity of research conducted in developing countries, and evidence-based occupational therapy is not yet a worldwide reality. Chile, a developing country graduating an increasing number of occupational therapists, provides a useful case for exploring EBP. The aim of this study was to investigate which sources of information are accessed by occupational therapists in Chile, and how knowledge is built and integrated in paediatric practice.

Methods

Interpretive description served as the methodological framework for this study. Ten Chilean occupational therapists, who had diverse demographic profiles and worked in a variety of paediatric settings, were recruited. Participants completed in-depth interviews regarding their decision-making in daily practice. Interviews were conducted in Spanish, transcribed verbatim in Spanish, and then translated into English. Data were rigorously coded and analyzed thematically. To enhance credibility of the data analysis, preliminary conceptualizations and interpretations were returned to the participants for their critical consideration. Feedback provided by participants strengthened the initial interpretations developed by the research team. Two main themes strongly emerged and pervaded across codes: factors that influenced decision-making and strategies used by Chilean occupational therapists to build their body of knowledge.
Findings

Chilean occupational therapists rely on intuition and clinical expertise when making decisions, regardless of the length of their professional experience. Cultural factors influence the passive role played by clients and their families. Participants face limited access to continuing professional development, research knowledge and information about contemporary occupational therapy practice. The limited development of research culture in Chile, lack of research training programs, limited awareness of the information available, and barriers such as lack of proficiency with the English language, could contribute to these findings. To build knowledge, occupational therapists use personal and professional networks, trusting in the available information, which has not always undergone quality evaluation. The professional training available strongly influences all aspects of their practice.

Discussion

Scarce access to research knowledge, precarious development of a research culture and lack of connection with the global scientific community can lead occupational therapists to rely on information that has not undergone quality evaluation. In Chile, the absence of regulatory bodies represent an additional risk to the profession, as there are no formal procedures to oversee the quality of professional practice, the standards of continuing professional development nor educational programs. Practitioners may benefit from developing a clinical reasoning framework based on evidence to guide their decision-making, in order to improve quality of practice and client outcomes. The establishment of a clinical reasoning framework based on evidence might be particularly relevant at this time, due to the increasing number of educational programs offering occupational therapy training in Chile. The status of the profession may be enhanced through empowering the professional association, to support high quality and updated professional training, promote research culture, and enhance the standards of practice among Chilean occupational therapists. Occupational therapists in developing countries could be encouraged to create scientific knowledge locally to contribute to the growth of occupational therapy globally.
Conclusion
The current climate in healthcare demands occupational therapists in Chile to align with the principles that have been guiding the global development of the profession, regarding the adoption of evidence-based practice and use of critical thinking. Multidimensional and systematic strategies could be implemented in relation to occupational therapists’ education, practice and research in Chile. Advancing the profession in this way will require powerful leadership, and occupational therapists who are strategically positioned to generate change. It will also demand the creation of international networks with key figures who are currently leading the development of occupational therapy around the world.
Declaration by author

This thesis is composed of my original work, and contains no material previously published or written by another person except where due reference has been made in the text. I have clearly stated the contribution by others to jointly-authored works that I have included in my thesis.

I have clearly stated the contribution of others to my thesis as a whole, including statistical assistance, survey design, data analysis, significant technical procedures, professional editorial advice, and any other original research work used or reported in my thesis. The content of my thesis is the result of work I have carried out since the commencement of my research higher degree candidature and does not include a substantial part of work that has been submitted to qualify for the award of any other degree or diploma in any university or other tertiary institution. I have clearly stated which parts of my thesis, if any, have been submitted to qualify for another award.

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Publications during candidature

PEER-REVIEWED PAPERS


CONFERENCE ABSTRACTS


Publications included in this thesis

No publications included. The thesis is presented as a thesis by chapters.
Contributions by others to the thesis

The MPhil candidate was responsible for the project design, gaining ethical approval for the project, design of the interview, data collection, analysis and interpretation of data and preparation of the manuscript. Nevertheless, significant contributions have been made by the research team, and the academic staff involved in the milestones undertaken through the project.

Dr. Jodie Copley (principal advisor), Dr. Merrill Turpin (associate advisor) and Dr. Chi-Wen Chien (associate advisor) provided relevant contributions to: the conception and design of the project; development of the interview, piloting the tool and training the interviewers, developing a coding strategy; analyzing and interpreting the data; providing advice on drafting significant parts of the work and critically revising it so as to contribute to the interpretation.

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Statement of parts of the thesis submitted to qualify for the award of another degree

None.
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<td>Attentional Deficit Hyperactivity Disorder</td>
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<td>ADOS</td>
<td>Autism Diagnostic Observation Schedule</td>
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<td>COLTO</td>
<td>Chilean Association of Occupational Therapists (Spanish Acronym)</td>
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<td>CO-OP</td>
<td>Cognitive Orientation to Daily Occupational Performance</td>
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<td>CPD</td>
<td>Continuing Professional Development</td>
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<td>CR</td>
<td>Clinical reasoning</td>
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<td>DIR Floortime®</td>
<td>Developmental Individual-difference Relationship-based Model</td>
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<td>EBP</td>
<td>Evidence Based Practice</td>
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<td>EEDP</td>
<td>Motor Development Assessment (Spanish Acronym)</td>
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<td>LILACS</td>
<td>Latin American and Caribbean Health Sciences Literature (Spanish Acronym – Database)</td>
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<td>Model of Human Occupation</td>
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<td>OT</td>
<td>Occupational Therapy</td>
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<td>OECD</td>
<td>Organization for Economic Co-operation and development</td>
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<td>Occupational Therapy Database</td>
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<td>PEP</td>
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<td>QUEST</td>
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<td>WFOT</td>
<td>World Federation of Occupational Therapist</td>
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INTERVIEWING

“How can I hear you and yet be me?

For the time we are together,
I must suspend my voice and let your story speak,
telling me of your ways,
showing me your paths,
shining a light for others on a kindred journey

I will inhabit your world while we talk.

And yet, I have my own thoughts and feelings

What if I disagree with you,
or am offended by what you say?

What if I’m unable to listen silently
while you spout a view I can’t abide?

What if memories lure me
from your story to my own?

How can I be me and truly hear you?”

Dr. Merrill Turpin, 2016
1. Introduction

Chapter One aims to contextualize this research, by providing a brief history of occupational therapy and services for people with disabilities in Chile. The background is followed by “My Stance”, a section that acknowledges and documents the insider’s perspective, with the purpose of disclosing what motivated this research, and framing the researcher’s experience in the context of using Interpretive Description. Chapter One ends with the thesis outline.

1.1 Background

Chile is a developing country located on the opposite side of the world to Australia, one of the strongest Latin American economies, but also the country with the highest level of inequality among OECD members (Organization for Economic Co-operation and Development [OECD], 2016). At the end of the 19th century- in 1882- Chile was involved in the War of the Pacific, and due to the significant number of injured soldiers, issues related to disability “acquired socio-political visibility” (Ortuzar, 2009, p.68). A group of surgeons responsible for assessing the soldiers’ level of handicap produced a document related to the need for orthopedic and artificial limbs. However, while the situation remained a concern for the Chilean army, it was not part of the agenda of the Chilean government (Ortuzar, 2009). In 1947, a major epidemic of poliomyelitis and Pott’s disease affected thousands of children in Chile, causing permanent disabilities for most of them (Laval, 2007). The lack of policies and absence of services to offer them support motivated a small group of upper social class families and health professionals to create a private organization called Sociedad Pro-ayuda al Niño Lisiado [The Society Pro-help the Disabled Child]. This private society rented a
small house, where doctors and nurses worked with few resources to help those families (Teleton, 2016).

Even with the increasing number of people with special needs in Chile, it was only in 1958 that the first physician was sent, by a public university, to the United States to undertake studies as a physiatrist [specialist in physical medicine and rehabilitation]. As a result, the first Rehabilitation Service was founded in 1961 at the University Hospital (Vergara, 2010). This physician’s personal experience abroad inspired him to develop the profession of occupational therapy in Chile, which was made possible through the support received from the International Labour Organization and the Pan American Health Organization. The first generations of Chilean occupational therapists were trained by American and English therapists, who led and developed the origins of the profession in Chile. The first School of Occupational Therapy was created in Santiago de Chile in 1963 (Escobar & Sepulveda, 2013). This School was the unique institution teaching occupational therapy within the country for 33 years before a second program was developed in 1996, in Valparaiso city (Gudeau & Silva, 2010).

Matters related to disability continued to fall outside the priorities of the Chilean government for a long period of time. Escobar and Sepulveda (2013), explained that the 1970s were characterized by several socio-political and economic problems in Chile, a crisis that resulted in a coup d’état, and a dictatorial government that ruled the country for 17 years. The authors depicted the School of Occupational Therapy as being developed while embedded in this context, and suggested that the profession was not only witness to the violation of human rights in Chile, but also suffered difficulties due to the prevailing political regime. The director of the School was dismissed because of her political orientation, and the national intelligence service infiltrated it with spies, who enrolled as occupational therapy students. Some occupational therapists were prosecuted by the dictatorial government and left the country, seeking international asylum. One student suddenly disappeared, and was considered to be one of the millions of missing detainees in Chile. This student appeared 15 years later under a different identity.

While the foundations of occupational therapy in Chile were based on knowledge imported from England and the United States, the character of the profession was strongly moulded by the social context. Escobar and Sepulveda (2013) suggested that the profession
was built in Chile in “an artisan way” (p.2), in that, the first curricula emphasized training in biomedical content, and subjects were orientated to teaching handicrafts, such as carpentry, weaving, embroidery and painting, as a means of treatment. Palacios (2015) described that, embedded in this turbulent socio-political context, some occupational therapists gained attention due to their work with poor and oppressed communities. Their goals were to fortify “the popular power and promote the collective occupations” (p.151) by, for example, organizing the whole community to make a shared meal. The author suggests that the concept of collective occupations emerged from occupational therapy practice, especially in countries that face poverty, injustice, and violation of human rights (Palacios, 2015).

The body of practical knowledge developed by Chilean occupational therapists within their context at that time appears to be influential in shaping the status of their contemporary practice. By 2013, an electronic book was published containing 95 abstracts of oral presentations and posters delivered at the first Chilean Congress of Occupational Therapy. In this book, entitled “50 Years of Occupational Therapy in Chile: Practice, Epistemology and Local Realities”, approximately fifty percent of the abstracts were related to community practice, daily experiences, social volunteers, and discussions regarding the political role of occupational therapists (Colegio de Terapeutas Ocupacionales de Chile [COLTO], 2015). Additionally, the use of language borrowed from social sciences was widely used by the authors of these abstracts. For instance, the titles of several abstracts included words such as pragmatism, epistemology, subjectivity, and political dimensions of daily experience. This might be explained in terms of the qualifications and postgraduate studies that the authors had achieved. Because there is only one Master’s by coursework degree program available in the field of occupational therapy in Chile, the authors of the book had undertaken Diplomas and training in psychosocial intervention, communitarian psychology, social psychology, applied social sciences, and a PhD in Logic and the Philosophy of Science (Colegio de Terapeutas Ocupacionales de Chile [COLTO], 2015).

The role of the Chilean government regarding the establishment of political frameworks and laws to support its citizens with special needs has gradually developed. Although incipient actions were undertaken around the injured soldiers in 1882 (Ortuzar, 2009), it was only in 1994 that the Chilean government created the National Law for the Integration of People with Disabilities (Biblioteca del Congreso Nacional de Chile, 1994). At
the same time, the first National Disability Service was developed, which was restricted to administering a reduced budget. This service acquired legal attributions in 2010, when the Chilean government recognized its role in promoting the rights and equal opportunities for people with disabilities (Servicio Nacional de la Discapacidad [SENADIS], 2016).

Regarding society’s response to issues related to disability in Chile, it has been argued that the creation of the original private centre to help children affected by the epidemic of Poliomyelitis and Pott’s disease was a historical event (Ortuzar, 2009). Thirty years after its foundation, the centre received support from artists and a television program was created to raise money once a year throughout the whole country. The program displays heartbreaking stories that motivate people to participate in the charity event. Since 1978, this institution, called Teleton, has grown from one small centre to 14 centres across the country, becoming the main institution providing rehabilitation services for children in Chile (Teleton, 2016). In 2003, the Chilean government started donating money to Teleton, which was criticized by some groups of people in Chile. They argued that the Chilean government donated part of the public budget to private rehabilitation centres; however, rehabilitation services in the public health area were rarely available and remained poorly resourced (Fundacion Nacional de Discapacitados [FND], 2008).

The private institution was expanded, and the initiative was replicated in 12 countries in Latin America. In 2014, the United Nations made a call to Latin American governments to meet their obligations regarding the provision of rehabilitation for children. The United Nations suggested to Latin American governments that they stop funding this private institution, as it was considered that the television program seeking donations promoted “stereotypes of people with disabilities as objects of charity” (United Nations [UN], 2014).

Despite the criticism, the television show continues to occur each year in Chile, and the rehabilitation centre remains the biggest and most important institution within the country, providing services to 85% of the total population of children with motor disabilities in Chile (Teleton, 2016). Nevertheless, the progress made regarding laws, regulations and provision of services do not seem to be sufficient for people with disabilities in Chile. The sole census regarding disability in Chile was conducted in 2004. It revealed that around two million Chilean citizens experience disabling conditions, and only 6.5% of them have received rehabilitation services (Sanchez, 2015).
As depicted in this section, the origins of the occupational therapy profession in Chile were influenced by theoretical foundations developed in the United States and England, but it has been strongly shaped by the sociopolitical and cultural context in Chile (Escobar & Sepulveda, 2013). The first School of Occupational Therapy created in Chile, which was the unique program in the whole country teaching the profession for 33 years, taught a curriculum that was based on the fundamentals brought from developed countries. The effects of the dictatorial government drove Chilean therapists to develop arenas of practice related to community work, social justice and the defense of human rights (Colegio de Terapeutas Ocupacionales de Chile [COLTO], 2015). In this context, the community of recently graduated practitioners organized the first professional association in 1975, which lacked legal attributions, as it was suppressed by the dominant regime. Later, the arrival of democratic governments was accompanied by the development of a market economy and the scarcity of regulation regarding tertiary education in Chile (Atria, 2015). Twenty years after the creation of the second occupational therapy program, Chile currently provides 42 undergraduate programs, with 34 of them being delivered by private universities. In relation to postgraduate programs, there is one Master’s by coursework, created also by a private university (Colegio de Terapeutas Ocupacionales de Chile [COLTO], 2015).

This section has provided the background to this study, which explains the forces that have influenced the evolution of the discipline and are the foundations of the current professional practice in Chile. The section that follows provides information about my own experiences as an occupational therapist.
1.2 My stance

I am a Chilean occupational therapist with experience working with children with neurological conditions and teaching in a private university in my country. As this research stance will illustrate, my passion for undertaking this research grew out of my professional experiences.

I began my journey in the field of occupational therapy 18 years ago. At the time that I decided to study, I had a clear conviction regarding wanting to work with children with disabilities, but I did not have a clear vision of what occupational therapy could be. By then, I had lived through a historical landmark within the profession in Chile - the second educational program was created by a public university, after 35 years of having only one university in the whole country that taught occupational therapy.

As I increased my understanding of the occupational therapy role, I felt more empowered and passionate about practicing the profession. Following my childhood dreams, I started working in a child rehabilitation centre after I graduated (now the biggest and perhaps the most important rehabilitation centre for children in Chile). Embedded in the Chilean context, my professional goal was to undertake professional training in sensory integration and Bobath therapy. This would mean that I was reaching the top of my professional career.

The eight years working as an occupational therapist with children with neurological conditions were the most rewarding and intense years that I have had in my life. I believe that my role as an occupational therapist transformed my life; it forced me to be a better person. The centre attends to 4,000 children in my city, and most of them belong to low-income families. Although I am a citizen of a developing country, and I grew up in the middle class without many privileges, it is difficult for me to believe that some children and their families can live in such inhuman and miserable conditions.

I always remember a particular girl. Everyone at the centre complained because she was shabby and her hair was full of lice. She was 14 years old, and had quadriplegic cerebral palsy. Her house was located at the bottom of the ravine of the hill, with humungous holes in
the wall and the wind penetrating everywhere. The hill was populated with small shacks, and as typically occurs in every hill of my city, most people had claimed the land illegally. There was no floor in her house, just the ground. It was the kind of place where you can smell the poverty. Before visiting her home, in my naïve mind, I was aiming to assess how to help her be more independent in daily living activities. I asked her mother how she showered her daughter and she answered me as follows:

“Well, we don’t have shower… I seat her in the wheelchair and I throw water with a hose… we don’t have hot water, so in winter I can shower her only if it is not too cold”

Upon leaving the place, I held back the tears as I climbed the steep hill with my thoughts clouded. After each of these kinds of experiences, something changed in my mind. I felt like the worst therapist, because I did not understand their world, their needs. How could this mother follow our instructions at home? She was barely feeding and keeping her children warm. I felt that, as a rehabilitation team, we were not what she deserved.

Over time I felt the need to learn more and gain new skills for improving the quality of my work. However, as my experience increased, I had more difficulties learning from colleagues as I was one of the most experienced therapists in my workplace. I tried several times but couldn’t find support, and was even reprimanded when I asked to undertake professional training activities. My attempts to conduct research, without having the necessary skills and working in an environment with a limited research culture, made me feel frustrated and bogged down. Because, in Chile, the use of handicrafts as a means of treatment is extensively used, and probably because we were not providing enough technical justification to support our practice, I had the permanent feeling of seeing my profession undervalued. Institutional policies, such as focusing on the number of clients treated per day rather than the quality of interventions, as well as the daily experiences in my workplace, overwhelmed me.

For a long time, I had an internal conflict between the passion that I had for working with my ‘little clients’ and their families, and the discomfort and disappointment that I
experienced in my work environment. I imagined myself in the future, doing exactly the same thing every day, and without the possibility of offering something better to my patients. Finally, personal circumstances- having my first child- led me to make the decision to change my job.

Working as the Head of the Occupational Therapy Division within a private university for three years was a meaningful learning experience. I discovered new knowledge gaps in myself, as well as a completely new field of work. I took on the challenge of leading a new occupational therapy program in that University, without academic experience and with little support. Trying to find the right way, just following my intuition, I spent almost a year trying to obtain a copy of the World Minimum Standards for Education of Occupational Therapists. This document was unknown to most of my colleagues working in education, which gave me the perception that Chile was growing far away from the worldwide occupational therapy standards. This was particularly worrying to me as, by this time, there were more than 40 new programs teaching occupational therapy across my country.

In the context of attending the First Chilean congress of Occupational Therapy in 2013, I found that colleagues who had graduated from different Universities were using a completely different professional language, mainly borrowed from some disciplines in the social sciences. This made me reflect on the situation in Chile, and how we were conducting our profession. It could be supposed that occupational therapists in Chile, after having a dictatorial government and belonging to a Spanish speaking and developing country, should develop a local knowledge and identity of our own. However, all the frameworks and knowledge bases that supported our contemporary practice had been imported from other developing and English speaking countries. There was no such creation of local frameworks and theories.

Carrying all these thoughts and concerns, and understanding that there were no options for finding a quality postgraduate program in Chile, I felt like I was standing on the brink of the abyss. Then, we jumped, taking as a family the challenge of moving abroad, learning English and studying again.

Commencing as a research higher degree student (RHD) and having initial discussions with my supervisors opened my mind and left me feeling that I had a big responsibility. Clinical reasoning and evidence-based practice are terms that were not very popular in Chile,
nor were they familiar for me, yet they seemed to be completely accepted in Australia (and other developed countries). During my time as RHD student, I have tried to take all the opportunities that I have for learning new things. I discovered that most of the theories and professional frameworks we were using and teaching in Chile were outdated, and there was a huge amount of knowledge about contemporary occupational therapy practice that was unknown to me and my colleagues in Chile and Latin America.

It is very common to hear that people from overseas experience culture shock when they arrive in the new country. I have lived this experience in the opposite way, I have had culture shock regarding my own country, with my own culture, and with the way we are conducting our professional development in Chile. Through the process of my research training, I have been encouraged to reflect in depth about my topic. With the aim of informing my reflections on the data I was collecting through this study, I conducted informal interviews with three Australian occupational therapists that had similar demographic profiles to some of the participants in this study. Across the informal interviews, evident differences in professional practice between Australian and Chilean occupational therapists emerged. As soon as I asked the first questions, Australian therapists spontaneously reported the use of evidence from research to make decisions. This was not something I would have thought about as a Chilean occupational therapist. Australian therapists described the use of many formal assessment tools, and even when they conducted clinical observations, these observations were informed by formal assessment tools. Regarding the family’s role within the intervention process, Australian therapists described parents actively involved in therapy sessions and being part of shared decision-making. One Australian interviewee working with Aboriginal people in remote communities depicted some characteristics of practice that were similar to contextual factors in Chile, such as isolation, time and resource constraints. However, the Australian context appeared less deprived of resources than the Chilean context, and therapists in Australia had regular access to updated professional training. One Australian occupational therapist spoke about her role as a formal supervisor. She suggested that the therapists she supervised were encouraged to use evidence in practice, and she tracked whether therapists applied objective assessment for measuring client outcomes, something that was expected by the child’s parents as well. In Chile, I had not experienced
these ways of evaluating therapy outcomes, and parents had not asked questions about how progress was measured.

Australian occupational therapists described the use of approaches and techniques in their work that seemed to be standard practice in Australia, but that I had not encountered in my own clinical practice. Nor were these approaches familiar to me in my role as Director of the Occupational therapy division in a private university in Chile.

Apart from interviewing Australian colleagues, I have had the opportunity to work at the University of Queensland as a teaching and research assistant. It allowed me to understand the contents of the occupational therapy curricula in Australia, and to observe which pedagogical strategies are used to teach and evaluate students. My main thoughts after conducting the interviews and working at the university in Australia, were that professional associations and the Australian government have built a powerful infrastructure that facilitates and supports high quality practice (e.g. Health Practitioner Regulation National Law Act 2009). This infrastructure is maintained by the relevant disciplinary registration board and the professional association, leading continuing professional development (CPD), establishing standards of practice, and promoting supervision. I also observed the significant impact of teaching students with a curriculum that emphasizes the development of a clinical reasoning framework based on evidence. It is as if the whole system is pushing occupational therapists to enhance the quality of their practice, and protecting our clients.

Final reflections on my research higher degree are: Every day I would like to have more time for learning, and invite more Chilean colleagues to go abroad and open their minds. This process of learning has illuminated my path forward, and it is giving me the hope that, even when it does not seem to be easy, we will improve the occupational therapy practice in our corner of the world… someday, we will give better care to our ‘little clients’ in Chile.
1.3 Thesis Outline

The aim of this research was to investigate the sources of information used by paediatric occupational therapists in Chile when making clinical decisions, in light of the sources of information considered in evidence-based practice. Additionally, it aimed to understand how occupational therapists in the field of paediatrics in Chile build knowledge. This thesis is presented as a Thesis by Chapters.

Chapter One commenced by outlining the background to the research project. It described the historical context, the evolution of the field of rehabilitation sciences, and how the profession of occupational therapy has progressed in this context. It also depicted how Chile has developed the concept of disability within its culture. This chapter further provided an account of my stance as an insider to Chilean occupational therapy practice.

Chapter Two provides a review of the literature in the area of evidence-based practice and clinical reasoning in occupational therapy globally. Evidence-based practice frameworks used by health professions are described, and the sources of information used in evidence-based occupational therapy are discussed. The relevance of clinical reasoning and its role in articulating all the sources of evidence and knowledge serve as a final reflection for this chapter.

Chapter Three analyses the status of evidence-based practice and clinical reasoning in developing countries, describing global perspectives and reflecting on the situation in Chile regarding each source of information that is considered in evidence-based practice. The research questions and aims of the study are defined.

Chapter Four details the methodological framework of this study, providing information regarding the research design, Interpretive Description, and describing participants, data collection and analysis.

Chapter Five describes the findings, highlighting the themes that emerged across the coded data, and is organized into two main categories. The first category describes and contextualizes the participants’ professional practice in Chile and the second category
Chapter Six discusses the findings and presents the reflections made by the research team, and the main conclusions that arise from the research project. Themes that strongly emerged across the data were analyzed in light of the evidence-based practice framework proposed by Hoffman and colleagues (2013). The analyses discusses the sources of information that are available to Chilean occupational therapists, how they use evidence from research and their clinical expertise, and how they consider the client’s perspective and the information from the practice context, to make clinical decisions in paediatric settings. Chapter Six finishes by providing a brief conclusion to this dissertation, discussing the limitations of this research, and recommendations for further research.


CHAPTER TWO

2. Evidence based practice and clinical reasoning in occupational therapy

2.1 Introduction

EBP has been increasingly promoted and applied in occupational therapy over the last twenty years. EBP aims to enhance the quality of clinical services and assists in justifying the impact of health care provided by practitioners (Lin et al., 2010; Rycroft-Malone, 2010; Rycroft-Malone et al., 2004). Practicing based on evidence is a ubiquitous need today, given that research knowledge related to health care is constantly being created and growing exponentially within the globalized world. Simultaneously, clients, governments and health policy makers are demanding proof of the effectiveness of occupational therapy to validate it’s role in health service provision (Bennett & Bennett, 2000; Lin et al., 2010; Thomas et al., 2012). It is becoming clearer that a range of sources of information are used by occupational therapists to contribute to sound clinical decisions and promote EBP (Hoffmann et al., 2013; Rycroft-Malone et al., 2004). The following sections detail the EBP framework, in terms of how it has been built, and how health professions have adopted the concept of EBP. In this context, the sources of information used by occupational therapists are described, and it is also depicted how these resources are integrated into the practice through clinical reasoning.

2.2 Evidence-based practice frameworks used by health professions

EBP is a worldwide movement that has been the focus of much debate (Dollaghan, 2007). There is no doubt that EBP is a core concept for health professions, but the wide influence of it’s principles have permeated areas such as “social care, criminology, education,
conservation, engineering, sport and many other disciplines” (Hoffmann et al., 2013, p.7).

EBP was first developed in the field of medicine by Sackett and his colleagues (1996), who defined it as “the conscientious, explicit and judicious use of current best evidence about the care of individual patients” (p.71). Clinical expertise and evidence from systematic research were the two concepts that built the original definition (Sackett et al., 1996), and a third element, which considered the patient’s perspective, was incorporated later by the authors (Sackett et al., 2000). Criticism and debate about what should be considered as evidence in EBP (Turpin & Higgs, 2013), the nature of the information used (Rycroft-Malone et al., 2004), what should be the role of the client/patient in health care (Hoogeboom et al., 2014), and the definition of minimum standards for training health practitioners in EBP (Dawes et al., 2005), have continued to develop and expand the definition of practice based on evidence.

In the field of medicine and the allied health professions, EBP plays a crucial role to the extent that it allows practitioners to enhance clinical decision-making and thereby improve client outcomes (Hoffmann et al., 2013). Particularly in the arena of rehabilitation science, EBP has become in a “dominant paradigm” for delivering care (Tse et al., 2004, p. 269). While rehabilitation professions have embraced the concept of EBP, different disciplines have developed their own theoretical applications, based on Sackett et al’s original work, but considering the areas of practice and conceptual frameworks that guide their professions (Bennett & Bennet, 2000). For example, in the field of communication sciences, Dollaghan (2007) suggested the use of “E3BP” as a frame for the discipline of Speech and language pathology. It recognizes the relevance of three kinds of evidence, emphasizing the distinction between external and internal sources of information. E3BP considers “external evidence from systematic research, internal evidence from clinical practice and the preferences of a fully informed patient” (p.2)

In the field of physical therapy, numerous publications adopt Sackett and colleagues’ original definition (Sackett et al., 2000), using the three components stated in this definition, that is, the integration of evidence from systematic research, clinical expertise and the client’s perspective, to describe EBP (Bernhardsson & Larsson, 2013; Gorgon et al., 2013; Ramirez-Velez et al., 2015; Scurlock-Evans et al., 2014). However, in it’s policy statement, the World Confederation for Physical Therapists (2015) suggests that, besides these three traditional sources, “evidence should take into consideration beliefs, values and the cultural context of
the local environment” (p.1). Similarly, in the field of Occupational Therapy, a fourth element was incorporated by Bennett and Bennett (2000), who proposed that EBP needs to take into account “the context in which treatment occurs” (p.172).

Hoffmann, Bennett and Del Mar (2013) developed an EBP framework that considers all four components to guide health professionals in appraising and integrating evidence into practice, as well as assist the creation of new knowledge. These authors highlight the central role of clinical reasoning and decision making in the process of EBP, stating that “evidence-based practice involves using clinical reasoning to integrate information from four sources: research evidence, clinical expertise, the patient’s values and circumstances, and the practice context” (p.4). As this framework aligns with the holistic nature of occupational therapy as a profession, it will serve as the main definition and one of the core concepts of this thesis, referred to as the EBP framework within the following chapters.

2.3 Sources of information used in evidence-based occupational therapy

In order to practice based on evidence, access to research knowledge created by the worldwide scientific community, is needed as a key source of information (Bennett & Bennett, 2000; Rycroft-Malone et al., 2004). The fast-paced growth of research evidence demands that therapists keep updated about effective approaches, novel theories and guidelines for optimizing cost-effectiveness of interventions and supporting high quality health care (Hoffmann et al., 2013).

Research suggests that occupational therapists have been challenged by the complex task of using and integrating research evidence into their daily practice (Colquhoun et al., 2010; Metzler & Metz, 2010). In the early 2000s, findings of a survey of 649 practitioners in Australia indicated that occupational therapists required support to achieve EBP (Bennett et al., 2003). Even though the majority of respondent occupational therapists showed a positive attitude towards EBP, less than a half of them made their clinical decisions considering research evidence. Participants argued lack of confidence in interpreting findings and rarely using databases for searching for research evidence. Additionally, the authors identified that
scarcity of time and lack of evidence that is clinically relevant were perceived barriers for achieving EBP. Based on these findings, Bennett and colleagues (2003) suggested that to promote EBP it is crucial to consider the provision of synthesized research to practitioners, the availability of online and paper-based resources, and EBP training. They called for professional associations to lead CPD to support practitioners’ EBP. Further exploration of EBP in developing countries was also proposed by the authors.

Ten years later, the findings published by Bennett and colleagues (2003) were supported by a systematic review conducted by Thomas and Law (2013), which concluded that “the lack of confidence in appraising and interpreting research continues to deter occupational therapy practitioners from engaging in EBP” (p.60). The study also indicated that therapists with postgraduate qualifications are more skilled and self-assured about using research knowledge in practice. Active involvement in research and partnerships between practitioners and universities are recognized as facilitators of EBP. Additionally, literature suggests the presence of several factors such as appropriate workload, support from the clinical team and disciplinary manager, and even the availability of sufficient evidence in the discipline as the key elements required to consolidate EBP (Bennett et al., 2003; Copley & Allen, 2009; Humphris et al., 2000; Sirkka et al., 2014). Without these additional factors, scientific findings may not be ably integrated into daily occupational therapy practice (Cameron et al., 2005; Thomas & Law, 2013).

A further consideration for EBP highlighted by Gustafsson et al. (2014) was the need for occupational therapists to appraise research evidence in terms of its coherence with occupational therapy’s philosophy and the core concept of occupation. These authors posited that the use of some interventions, such as the use of electrical stimulation, do not appear to align with occupational therapy’s philosophical principle of engaging with occupation. As a result, they asserted that occupational therapists need to be aware that “we risk losing our professional identity and our ability to utilize our unique expertise for the benefit of clients” (p.122). Consequently, the challenge for occupational therapists is not just about engaging in EBP and being skilled in implementing it in the context of a supportive environment, but also ensuring the congruence of the evidence with occupational therapy’s professional perspective.
Clinical expertise is the second source to inform evidence-based practice. It was defined by Sackett et al. (1996) as the “proficiency and judgment” (p. 71) that practitioners develop based on their professional practice. Through the experience gained in day-to-day practice, and from being embedded in their professional communities, clinicians are able to enhance their practical and theoretical knowledge and skills in their own discipline, which allows them to better manage the complexity of clinical practice (Copley et al., 2010). Given that the type of knowledge that comes from clinical experience is intuitive and tacit, it has been devalued in scientific contexts (Leicht & Dickerson, 2002; Rycroft-Malone et al., 2004), especially if it is the only criterion used to make clinical decisions (Rycroft-Malone et al., 2004), as it is seen as “idiosyncratic and subject to bias” (p. 84). Nevertheless, as practitioners increase the length of their clinical experience, acquiring greater knowledge and abilities, they can develop clinical expertise that is “reflected in more efficient and effective diagnosis, and more thoughtful identification and compassionate use of patient’s predicaments, rights and preferences in making clinical decisions about their care” (Sackett et al., 1996).

Clinical expertise is described as a resource in which occupational therapists often base their professional decision making (Bennett et al., 2003) and a basic source of professional information that guides decision making by drawing from previous experiences of intervention success (Thomas et al., 2012). In the foundation stages of the EBP movement, Sackett (1996) argued that without clinical expertise, even high levels of scientific evidence may not be pertinent or applicable to an individual client. Clinical expertise is required to support the critical thinking process and for integration of the other sources of information that contribute to EBP (Rycroft-Malone et al., 2004).

Clinical expertise development encompasses an understanding that is founded on professional training and is nourished by professional networks. Professional training allows practitioners to enhance their body of scientific knowledge through academic activities such as undergraduate and postgraduate studies, specialization programs, workshops, congresses and seminars (Higgs et al., 2001). Professional networks can also contribute to clinical experience, because interacting with peers through clinical meetings, systematic peer supervision and mentoring by an expert occupational therapist can be helpful in building expertise and mastery in practice, which allows the achievement of higher professional standards (Copley et al., 2010; Hoffmann et al., 2013; Lee & Miller, 2003). In developed
countries, formal mechanisms have been developed to provide support to occupational therapists. For example, professional associations and regulatory bodies play a crucial role organizing training, developing standards for registration and overseeing the quality of professional practice (Garcia et al., 2016; Westcott & Whitcombe, 2012).

Over time, the development of clinical expertise has continued to be in the spotlight for occupational therapists. In addition to underlining the need for engaging in CPD activities, and fostering a professional landscape that oversees the quality of practice, occupational therapists have also emphasized the fundamental role that reflection plays in the growing of knowledge and skills (Wong et al., 2016). Reflective practice is embedded within the frame of professional thinking, a core concept that serves to guide reflection and has an “interplay with EBP…being mutually supportive” (Bannigan & Moores, 2009, p. 343). With the aim of scaffolding the ability to think critically, reflective practice has been incorporated within the World Federation of Occupational Therapists’ entry level requirements of students, and theories and models of reflection have been entrenched in the curricula of educational programs in developed countries (Wong et al., 2016).

A third source of information that contributes to EBP is patients’ experience, values and preferences. Barker (2000) reflected on health care within the evidence-based culture, emphasizing the relevance of this source when arguing that best practice has to consider patients’ and families’ responses when facing the phenomenon of health and sickness. Additionally, Rycroft-Malone (2004) stated that, ethically, client preferences and experiences should be the core of practice in evidence-based health care. Studies in occupational therapy suggest that key information required to make clinical decisions includes information about the client’s history, characteristics and interests of the client and his/her family’s context and expectations, as well as data obtained from comprehensive assessment of the client’s occupational performance and participation (Kramer et al., 2009; Rogers & Holm, 1991). A study exploring the information used by an expert paediatric occupational therapist found that information from and about the child within his or her daily environments gathered through assessment, observations and interviews was considered the most important information used when making clinical decisions. This information was frequently updated through ongoing discussion with the child, family and significant others (Copley et al., 2010).
A fourth source of information in EBP is the *practice context* within which therapists interact with their clients (Hoffman et al., 2013). Studies about occupational therapy practice suggest that multiple context-dependent variables have a strong influence over the way in which therapists are thinking and making decisions (Shafaroodi et al., 2014). For example, in a study conducted to identify what factors influence therapists’ interventions for children with learning difficulties, it was found that time, resources and equipment available determined whether specific approaches could be used to treat clients (Copley et al., 2008; Rassafiani et al., 2006). Additionally, it has been described that organizational factors, such as characteristics of the workplace, have a strong influence over EBP implementation. Enablers of EBP have been identified, for instance, the presence of a leader encouraging the use of research evidence in practice (Thomas & Law, 2013), or the presence of mentors who can provide feedback and supervision to improve professional practice (Upton et al., 2014). Access to databases (Bennett et al., 2003), libraries, information services and “dedicated time in the working week” (Humphris, 2000, p. 521) are all seen to support practice that is based on evidence. On the other hand, it has been suggested that workload pressures as well as limited staff resources could limit EBP (Dysart & Tomlin, 2002).

Rycroft-Malone and colleagues (2004) have pointed out the relevance of considering additional sources of information from the local context in order to improve the quality of service delivery. For instance, they suggested that health professionals may gather information from “social and professional networks, knowledge about the organization and individuals within it, feedback from stakeholders, and local and national policies” (p.86). The authors described that this kind of information was scantily considered in the EBP literature, and further research was needed in order to comprehend its role and impact on EBP and health care services.

2.4 Clinical reasoning in occupational therapy

While attention to knowledge from research, clinical expertise, patient experience and the local context are all seen as contributing to EBP, the availability of these sources of information does not guarantee achieving EBP if health professionals are not able to think
critically. Clinical reasoning (CR) involves practitioners conscientiously reflecting on all this information, considering its reliability and applicability, and ensuring that every clinical decision is personalized for each client (Rycroft-Malone et al., 2004). Indeed, the purpose of EBP is to assist professional reasoning, allowing practitioners to make informed clinical decisions (Hoffmann et al., 2013).

CR is a prominent concept in the occupational therapy field and has been defined as the professional ability “to plan, direct, perform and reflect on client care” (Schell, 2003, p.131). Given the wide range of information used by occupational therapists to make clinical decisions, CR is a complex and challenging task. It is considered complex because practicing within the real-world context requires the ability to assemble dynamically and simultaneously each aspect of the information (Copley et al., 2010), and challenging as it requires occupational therapists to use their professional expertise and skills to make suitable clinical decisions (Shafarooodi et al., 2014).

CR became relevant for occupational therapists 30 years ago, when Joan Rogers (1983) challenged the profession to reflect on the imperative need to develop a strategy to enhance the quality of decision-making regarding client assessment and intervention, and to diminish errors in practice. Rogers suggested that it is fundamental to reveal the reasoning process that supports clinical decisions, so that this process can be taught and further developed. Occupational therapists were therefore encouraged to foster the novel research area of CR (Rogers, 1983). In response to this mandate, scholars in occupational therapy have since continued to expand knowledge and understanding of clinical reasoning.

Researchers have discovered that occupational therapists seemed to use different strategies to handle the multifaceted nature of clinical problems (Mattingly & Fleming, 1994). Over time, a variety of reasoning styles have been described in the field of occupational therapy. Fleming (1991) first suggested three reasoning styles which work interactively in therapists’ minds. *Procedural reasoning* involves therapists thinking about the clients’ diagnosis to decide on suitable approaches. *Interactive reasoning* occurs in person-to-person encounters, when the therapist aims to understand the client as an individual. The third style identified by Fleming (1991) was *conditional reasoning*, which is the ability to adaptably respond to the client’s current and future needs. Rogers and Holm
(1991) identified **diagnostic reasoning**, which involves reflective thinking about client conditions that demand intervention. Later, **narrative reasoning** was described as the understanding that therapists develop about the meaning of the ailment or disability from the client’s perspective (Mattingly & Fleming, 1994). Additionally, Schell (2014) suggested that the CR framework for occupational therapy also included **scientific reasoning**, which involves the use of scientific methods of understanding client’s condition to decide the best intervention. Two more styles were also described, **pragmatic reasoning**, which focuses on how occupational therapists reflect on aspects of the practice context and their own professional performance (Schell & Cervero, 1993), and **ethical reasoning**, which describes how practitioners think about moral dilemmas (Schell, 2014).

It has long been accepted that the way in which occupational therapists use knowledge to reason and solve problems is reflected along a continuum of professional expertise, which develops from novice, through advanced beginner, competent, proficient and finally to expert (Schell, 2014). Within this continuum, each category is not only associated with years of practice, but is dynamically shaped by a reflective process applied to professional and personal experiences (Gambrill, 2012; Schell, 2014). A novice has little experience and is not skilled in adapting rules, therefore basing decisions primarily on theoretical knowledge. In contrast, an expert is capable of reflecting quickly and intuitively, using and expanding his/her knowledge, practicing with less routine analysis and promoting long-term outcomes (Schell, 2003). Schell (2014) suggested that as they progress through this continuum, therapists become progressively capable of sorting and prioritizing information, negotiating and creatively making decisions about therapeutic goals. Additionally, it has been argued that occupational therapists who have “outstanding performance” (Schell & Schell, 2008, p.249), have completed years of study and ongoing professional training in a given field. In summary, the type and quality of sources of information used in practice are a relevant contribution to the acquisition of professional expertise.

Occupational therapy has well developed models of practice, which make explicit professional assumptions and define the scope of practice. These models can be used to guide occupational therapists’ clinical reasoning, ensuring that practitioners are “systematic and comprehensive” (Turpin & Iwama, 2011, p.23) in practice. In the paediatric field, specific frames of references and models have been developed to assist occupational therapists in
clinical settings. Some examples are occupation centred practice (Rodger, 2010), a contemporary model that is well-recognized by therapists working with children, and frameworks such as the Cognitive Orientation to daily Occupational Performance (CO-OP) (Polatajko & Mandich, 2004), and Occupational Performance Coaching (Graham et al., 2009).

This chapter has described the relevance that EBP and CR have for occupational therapy contemporary practice. It is clear that EBP has become an essential requirement for health practitioners, with the aim of assisting CR, in order to achieve best practice and improve client outcomes. It has been illustrated that the concept of EBP has been embraced by health professions and expanded over time. The framework for EBP used in occupational therapy has been discussed, and the four sources of information that build this framework, namely research evidence, clinical expertise patient’s values and circumstances, and practice context, have been explored in depth.

Despite the growth of research on EBP and CR in OT, this literature may not depict the global state of the profession. This research has been led by scholars from developed countries who have generated the majority of scientific knowledge available in the field. It is therefore important to examine, as a separate focus, the current status of EBP and CR in developing countries.
CHAPTER THREE

3. Evidence based practice and clinical reasoning in developing countries

3.1 A global perspective on EBP and clinical reasoning

EBP has become relevant for health professionals worldwide (Buchanan et al., 2015). Occupational therapy as a profession has adhered to this global movement, through actively engaging in research knowledge production as well as promoting its adoption among occupational therapy practitioners (Bennett & Bennett, 2000; Doucet et al., 2014; Ilott et al., 2006).

Most of the research into EBP, CR and decision making in occupational therapy has been generated from countries such as Australia, the United States, the United Kingdom and Canada (Ashburner et al., 2014; Kadar et al., 2012; McCannon et al., 2004; Saleh et al., 2008). What is not clear is whether descriptions of EBP and CR from these countries is representative of occupational therapy practice around the globe. In other words, it is unknown whether occupational therapists from developing countries are thinking and practicing in the same way as those from developed countries, given the lack of literature documenting EBP and CR in these countries.

The progression of occupational therapy practice is likely to be different in developed and developing countries, consistent with their status in economic growth. For instance, in many developing countries occupational therapy is a profession that is still not well known by the public, is under-appreciated in a variety of contexts, and is growing slowly in terms of research, academic and professional training. Gomez and Imperatore (2010) conducted a study regarding occupational therapy development in Latin America, in which 88 occupational therapists from 11 Latin American countries responded via electronic survey. The findings indicated that public knowledge of occupational therapy “is still insufficient”,
and that the profession is poorly acknowledged or not acknowledged by governments. Additionally, only around 50% of participants reported that they engaged in professional development activities or “specialization” (p.129). However, there is no information that suggests that any of the occupational therapists that participated in this study had achieved postgraduate qualifications. Participants reported that in the first stages of occupational therapy development in Latin America, few people had the opportunity of undertaking postgraduate studies, but these opportunities have been increasing over time. Finally, participants identified the need to increase the amount and quality of research, and the need to create new areas of practice.

Shafaroodi and colleagues (2014) conducted a study to explore the CR of occupational therapists in a developing country, Iran. Findings demonstrate that the current situation for occupational therapy in Middle-Eastern developing countries is similar to that in Latin America. The results indicated the presence of managers with a poor understanding of rehabilitation, inadequate service provision policies, and physicians and other members of the rehabilitation team with a scarcity of knowledge about the role and services provided by occupational therapists. Inaccurate perceptions and expectations from managers meant that occupational therapists had a lack of time to see clients and insufficient resources and facilities. These conditions were perceived to affect their CR and decision-making.

Occupational therapy as a profession has been challenged to achieve the global implementation of evidence-based practice (Ilott, 2006), however, as Bannigan (2011) indicated, EBP “is not yet a global phenomenon” (p.6). A study conducted in South Africa confirmed this assertion, stating that most of the progress made in evidence-based occupational therapy worldwide has been led by researchers from developed countries. In this article, Buchanan (2011) suggests that the importance of evidence-based practice in developing countries seems to be limited, which is reflected through the lack of published literature about EBP. The author depicted the actions undertaken in South Africa in order to promote de adoption of EBP framework, identifying the main barriers and enablers of EBP that can be particularly relevant for developing countries. The article concluded by providing recommendations to foster evidence based occupational therapy locally and globally (Buchanan, 2011).
A rare example of a publication on EBP in Latin America is a paper titled “How much do we understand about the concept of evidence-based practice in occupational therapy?” recently published in the Chilean Journal of Occupational Therapy (Aravena, 2015). This paper is a comment by a Chilean author on EBP in occupational therapy globally. However, its content reflects limited exposure to the progress occupational therapy has made in recent decades regarding evidence-based practice. For example, the author suggests that the occupational therapy profession does not have its own definition of EBP, and “the method [EBP] is not rooted in occupational therapy practice” (p.189). These comments suggest reduced access to the worldwide literature that has been generated on EBP in occupational therapy to date.

3.2 Occupational therapy in a developing country—Chile.

A key example of occupational therapy in a developing country is Chile. This country is one of the first Latin American countries in which occupational therapy was developed, and the number of Chilean students choosing occupational therapy as a career is increasing. According to the Chilean Association of Occupational Therapists (Colegio de Terapeutas Ocupacionales de Chile [COLTO], 2014), the number of students enrolled in occupational therapy programs has increased dramatically, reaching 6,927 students over recent years. As a result, it is expected that during the next five years, the number of occupational therapists graduated will have increased approximately 3.5 fold from the current number of 3,094 practitioners (Superintendencia de Salud, 2015). Occupational therapy practice in Chile is therefore a pertinent case to examine in relation to EBP and CR in developing countries and as such, is the focus of this study.

In Chile, there are currently 18 Universities and 2 professional institutes leading 42 programs of occupational therapy education across the country (Colegio de Terapeutas Ocupacionales de Chile [COLTO], 2014), and only five of them are accredited by the World Federation of Occupational Therapists (WFOT, 2016). The majority of these programs involve five years of training, with most of them providing students with a Bachelor’s degree.
In most of these programs, students need to conduct a thesis for the award of the Bachelor’s degree. These theses constitute “the first source of research production” in Chile (Colegio de Terapeutas Ocupacionales de Chile [COLTO], 2014, p.5).

Regarding postgraduate qualifications, there is only one Master’s by coursework program available to occupational therapists in Chile, and there are no PhD programs (Colegio de Terapeutas Ocupacionales de Chile [COLTO], 2014). At the first Chilean Congress of Occupational Therapists in 2013, a survey was undertaken in order to gain information about the status of CPD in a sample of 480 Chilean occupational therapists. The survey showed that five percent of occupational therapists had achieved a Master’s Degree, and 80% had undertaken a Diploma or “specialization training” (Colegio de Terapeutas Ocupacionales de Chile [COLTO], 2014, p.5), such as that provided in workshops or short-term training in specific approaches such as sensory integration or neurodevelopmental theory. In Chile, professional development options for occupational therapists have been mainly developed within the past 20 years (Gomez & Imperatore, 2010) and activities are mostly delivered by private organizations (Gallegos, personal communication, 2015), as the Chilean Association of Occupational Therapists does not organize such training. A Latin American publication in the field of physical therapy also reported that professional education activities are offered only sporadically (Ramirez-Velez et al., 2015).

3.2.1 Sources of information to guide occupational therapy practice in Chile.

To our best knowledge, there are no published articles exploring occupational therapy and EBP in Chile. Neither have an exploration of occupational therapists’ clinical reasoning, clinical decision making nor reflective practice been undertaken. The use of the four sources of information that support EBP is not explicit. However, in light of the literature reviewed in this chapter, two of the major factors that are likely to impact on EBP and CR are access to and generation of research, and access to development of clinical expertise. It is not clear how patient experiences, values and circumstances and local context may be impacting on occupational therapists’ clinical decisions. Each of these sources of information will be
examined to determine the current knowledge available regarding the use of each in Chilean occupational therapy practice.

3.2.1.1 Access to and generation of research

According to data reported by Gomez Lillo (2010), while the number of Latin American occupational therapists with postgraduate qualifications has been gradually increasing, there are still very few occupational therapists with experience in researching and creating local practice knowledge.

In occupational therapy, developed and Anglophone countries were pioneers in the creation of profession-specific journals. The American and Canadian Journals of Occupational Therapy were founded by 1970, followed by the Australian Occupational Therapy Journal in 1973, and the British Journal of Occupational Therapy in 1982 (OTDBASE, 2015). There are some developing countries that have achieved the creation of their own scientific journals, as in the case of Chile, which has an indexed local publication “Revista Chilena de Terapia Ocupacional” (LILACS database) and has been published for 15 years [since 2001]. However, these kinds of scientific resources for creating and disseminating local knowledge are few in number in all Latin American countries.

It is evident, given the lack of local journals and limited research training available, that occupational therapists from developing countries are struggling with the creation of local knowledge; however there are also barriers to accessing global scientific knowledge to guide EBP and CR in their local contexts. By way of illustration, according to Scopus, LILACS and OTDBASE databases, of the 33 registered journals of occupational therapy around the globe, 75% are available in English only. Regarding other languages, 3% are published in Arabic, 3% in French, and 6% are published in Spanish, creating a significant barrier for those occupational therapists who do not speak English as a second language. In fact, Bannigan (2011) argued that “English continues to be the language of science” (p.5) in occupational therapy, reaffirming a situation that was previously identified by Ilott (2006). In the case of Chile, given that only 9.5% of the Chilean population, who are predominantly
Spanish speakers, report speaking English (Chilean National Institute of Statistics, 2012), it can be assumed that Chilean occupational therapists are not gaining access to the vast majority of published occupational therapy research generated to guide their practice.

The lack of access to research knowledge does not seem to be a topic regularly discussed among occupational therapists in Chile. Farias & Lopez (2013) conducted research exploring the perceptions of Chilean occupational therapy students regarding their needs in educational programs. The findings suggested that students attributed most relevance to practical activities within the curricula and to clinical educators having vast professional experience. The students indicated that occupational therapists taking the role of educators needed to improve their academic skills in teaching strategies. Additionally, they valued the “tips” (p.48) provided by teachers, related to books, literature and complementary videos to improve the learning process. The access to and use or importance of scientific knowledge was not discussed in the study.

Generation of local knowledge appears to be limited in Latin American nations. In our best understanding, the foundations of knowledge that primarily support occupational therapy practice in these countries relates to theories and frameworks developed in the western world. A search of literature published in relation to the creation of local frameworks or theories in Chile was conducted in the following databases: LILACS, Medline, CINAHL and PsycINFO. Google Scholar, the Chilean Journal of Occupational Therapy, and the [Chilean] Journal of Occupational Therapy Students were also searched. The search terms used were: “occupational therapy”, “Chile”, “Latin America”, “framework”, “model”, “approach”, “theory”, “creation”, “development”, “knowledge”, and “evidence”. The search resulted in one article that was published in the Journal of Occupational Therapy Students, which is a non-indexed website created three years ago by a private university in Chile. In the article (Aravena et al., 2015), occupational therapy students conducted a study exploring the creation, development and validation of occupational therapy assessment tools in Latin American countries. The authors examined articles published in the previous five years in Portuguese and Spanish languages. Given the shortage of literature available, they concluded that the creation of research knowledge is not a “pillar” (p. 74) for the profession in Latin America. Aravena and colleagues discussed the extensive use of tools created in English-speaking countries, and revealed that they did not find any research documenting translation
or “transcultural adaptation of tools within the discipline” (p.72) for use in South American countries. Their findings did locate books and assessment tools that pertain to the Model of Human Occupation (MOHO), which had been transcribed, but not adapted to the Latin American culture, by a Chilean occupational therapist.

A recent electronic publication from the Chilean Association of Occupational Therapists (that was disseminated using social networks such as Facebook and emails), documented all the topics and presentations delivered at the first Chilean Congress of Occupational Therapy in 2013 (Colegio de Terapeutas Ocupacionales de Chile [COLTO], 2015). This electronic book contains article abstracts describing local experiences and interventions, among which was one entitled “Latin American Statement of Occupational Therapy and Occupation” (Schliebener & Ramirez, 2013). In the abstract, the authors discussed that Latin America is a continent that has suffered violation of human rights, the action of dictatorial governments, and social inequalities, all which affect the occupational identity of Latin American citizens. They suggested that occupational therapy has a political role to play, and proposed that the current scientific knowledge is compounded by dominant ideologies and strictly determines what is true or false, what must be known, and how to communicate the knowledge. The authors made a call to Latin American occupational therapists for “validating other ways of knowledge that are far away from the scientific knowledge, which aspire to be equally recognized” (p.269) rather than recommending a focus on scientific knowledge by the professional community.

3.2.1.2 Development of clinical expertise

Achieving expert clinical knowledge to assist CR, and consequently EBP, is also dependent upon CPD, such as the presence of local experts from which to draw (Schell & Schell, 2008). In occupational therapy, most recognized experts who provide worldwide leadership in specific areas of professional knowledge are from developed countries. As mentioned earlier, in Chile one Master’s-by-coursework program, delivered by a private university constitutes the available offering of postgraduate degrees (COLTO, 2014).
Professional development events, training and specialization programs, especially in the paediatric field, are delivered predominantly by foreign occupational therapists. This lack of local leaders delivering training presents another barrier to EBP and CR to the extent that the programs are not available regularly and ongoingly, and are also expensive. Even when these training programs are delivered, it is not easy to connect with international experts due to linguistic differences and lack of professional networks with them (Gallegos, personal communication, 2015).

Mentoring and peer supervision are other ways in which health professionals develop clinical expertise. However, lack of access to postgraduate qualifications and regulated professional development training in Chile is likely to limit the emergence of practice experts who can provide such mentoring. However, in the context of the first disciplinary congress in occupational therapy, the Chilean Association in 2013 recognized the existence of seven regional professional groups, and six of them declared the aims of supporting professional practice, sharing experiences and promoting reflection. Only two of these associations stated the generation of research as a goal (Colegio de Terapeutas Ocupacionales [COLTO, 2015).

In developed countries, professional associations and regulatory bodies play a crucial role in providing support to improve professional performance and overseeing standards of practice (Garcia et al., 2016; Westcott & Whitcombe, 2012). The Chilean Association of Occupational Therapists was created 50 years ago, and it is the organization that represents the professional community in Chile (Colegio de Terapeutas Ocupacionales de Chile [COLTO], 2014). Nevertheless, the association has limited power to regulate and guide the development of the profession in the country. By 1981, a constitutional reform was created by the dictatorial government that led the country at this time, in order to regulate professional associations (Fuenzalida, 2007). The law “suppressed the obligatory nature of becoming a member of professional associations for its practitioners, and abolished the disciplinary control that these organizations exerted over its members” (p. 132). The Chilean parliament’s website published a document discussing the role of professional associations in Chile, taking as a model the regulatory bodies established in Australia (Biblioteca del Congreso Nacional [BCN], 2012). The publication reflected how the Australian system has developed strategies to control professional practice and protects Australian consumers. It was also suggested that professions, its practitioners and consumers in Chile are regulated by
the “law of supply and demand”, and the regulation of standards of practice and ethical codes is minimal.

3.2.1.3 Patient experiences, values and preferences

Regarding areas of practice, the Chilean Association of Occupational Therapists (2014) documentation states that in Chile, occupational therapists work in non-governmental organizations, public and private practice. Hospitals, community centres, schools, jails, and home-based private services are the most common settings of practice. In these settings, therapists provide services to clients with: sensory and physical disabilities, developmental disorders, elderly and paediatric disabilities, mental health conditions, intellectual disabilities, drug consumption, social risk and marginalization, cancer, post-surgery disorders education. Additionally, the role includes “public policies, teaching, management and research” (Colegio de Terapeutas Ocupacionales de Chile [COLTO], 2014, p.6). Even though this list suggests a wide range of areas of practice in Chile, the clinical field of paediatrics is prominent, as occupational therapy was developed in Chile in response to the epidemic of poliomyelitis in 1962 that affected a significant number of children (Gomez, 2013). Paediatrics remains the most common field of occupational therapy practice in Chile.

The role that clients play in the delivery of service and CR has not been clearly documented in Chile. Papers published in The Chilean Journal of Occupational Therapy rarely mention the concept of client-centred or family-centred practice. Using the same databases as outlined for the earlier search, we searched the following terms: “occupational therapy”, “Chile”, “client-centred practice”, family-centred practice”, “patient”, “client”, and “family”. The search yielded no articles. The book of abstracts published after the first Chilean Congress of Occupational Therapy (Colegio de Terapeutas Ocupacionales [COLTO] 2015) contains 20 out of 95 abstracts which briefly mention that the client’s needs, interests and context are, or should be, considered when deciding on interventions (Colegio de Terapeutas Ocupacionales [COLTO], 2015). Client-centred practice does not appear to be a
documented feature of occupational therapy practice in Chile and is not mentioned in professional documents on the Chilean Association of Occupational Therapists website.

3.2.1.4 The Chilean practice context

The adoption of EBP and the achievement of sound CR have been considered important for health practitioners globally, and even more relevant in developing countries (Buchanan, 2011), given their resource constraints and epidemiological profiles, which can be extremely different from developed countries.

There is no current literature describing how the context in which Chilean occupational therapists are working might affect CR and professional performance. The electronic book recently published by the Chilean professional association includes articles suggesting that, for those occupational therapists working within communities, it is challenging to manage the “stigmatization and discrimination” (p.103) experienced by the people with whom they work (Colegio de Terapeutas Ocupacionales [COLTO], 2015). This comment relates to occupational therapy clients who reside in poor neighborhoods with high rates of crime, a common feature of many Chilean communities.

The researcher’s own experience as an occupational therapist in Chile suggests that the social structure impacts on the nature and focus of occupational therapy services. Occupational therapy services are not covered by public or private health insurance, and only the poorest are able to access public services free of charge. Occupational therapy is only available in some public hospitals. The high rates of domestic violence, drug abuse and crime in poor sectors of the community have resulted in the client categories of “social risk” and “children in jail” being commonly serviced by occupational therapists in most public and non-government organizations.

In summary, the literature review has described how the EBP concept has evolved since its creation, detailing the progresses made by occupational therapy in the lasts decades. As the worldwide adoption of EBP has become in a challenge for the profession, the global perspective is depicted, with emphasis on the status of developing countries, which has been
illustrated, using the Chilean professional landscape. Due to the lack of literature published by scholars from developing countries regarding EBP, which appeared being more critical for non-English-Speaking countries, occupational therapy practice in Chile will be the focus of the current study.

3.3 Research aims and questions

Considering the potential barriers to EBP and reduced access to information sources that support CR and decision making, it is not clear how occupational therapists in developing countries are making clinical decisions in their practice, and whether these decisions are supporting best practice for their clients.

To begin to answer these questions, this study will focus on paediatric occupational therapy practice in Chile, as paediatrics is one of the most common and earliest developed areas of practice in Chile. There is currently no research describing the sources of information that Chilean occupational therapists are using in clinical practice, and how they are using this information to perform CR and make professional decisions.

The aim of this study is to identify what type of information and how it is being used to support CR and decision-making within occupational therapy practice in Chile, and explore how Chilean therapists build professional knowledge. Gaining this understanding will help to describe to what extent best practice is occurring in paediatric occupational therapy settings, as well as identify the type of information required by Chilean occupational therapists to improve their practice and, therefore, further benefit their clients.

Specifically, the research questions are:

1. What sources of information are available to and used by paediatric occupational therapists in Chile to make professional decisions?

2. How do Chilean occupational therapists in paediatric settings build their body of knowledge?
4. Methodology

4.1 Research design: Interpretive Description

To address these research questions, an in-depth understanding of this phenomenon was gained from the perspective of those with direct experience. This was achieved by gathering experiences from paediatric occupational therapists in Chile and comprehending the meaning that they attributed to them (Lapan et al., 2012; Patton & Patton, 2002). To explore how Chilean occupational therapists interpret and construct their realities, and how they make sense of their practice (Patton & Patton, 2002), the specific approach chosen was interpretive description (Thorne, 2008).

*Interpretive Description* (Thorne, 2008) provides a theoretical framework that is congruent with this study as it is designed to provide a qualitative research method that is appropriate for applied disciplines. The method was first developed for nursing but has since been applied to occupational therapy (Roots et al., 2014; Suto & Smith, 2014). As an applied qualitative research approach, interpretive description is used within health care settings to capture crucial information from clinical practice, to create pragmatic knowledge that is relevant to be used in health care practice (Suto & Smith, 2014; Thorne, 2008). Therefore, the chosen methodological approach matches coherently with the purpose of this study, to the extent that data were obtained from Chilean occupational therapists about their experiences and practice in paediatric settings. It was anticipated that research findings, as well as elucidating how Chilean occupational therapists are practicing, may provide valuable information that could contribute to identifying the sources of information they use and strategies they need to improve their professional performance.
In interpretive description, the sources used to collect data may include interviewing participants, making observations in the natural environment and reviewing written documents, so that the themes, insights and pertinent analysis can emanate from the real context (Patton & Patton, 2002). The current project utilized open-ended interviews as the primary form of data collection. Observations of occupational therapists in clinical environment where they were working routinely were requested.

Interpretive description proposes that the interview is a powerful resource for collecting data in health research (Thorne, 2008). Within clinical environments, interviewing clients is part of occupational therapists' daily work. Therefore, participants involved in this study were familiar with this way of gathering information. Because it is a naturalistic approach, it is highly congruent with the real practice of occupational therapy and provided a strong strategy for engaging participants. Interview questions were constructed to gather as much data as possible about the sources of information used in practice and the CR and decision-making processes that are experienced by the Chilean occupational therapists.

4.2 Participants

In qualitative research there are no strict parameters delimiting sample size (Patton & Patton, 2002). In interpretive description, the goal justifying sample size explicitly involves generating a “rationale that is consistent with the research question" (Thorne, 2008, p. 94). As the research questions pertained to occupational therapists' use of information and ways of building knowledge, obtaining data directly from a diversity of occupational therapists was most appropriate. According to the National Register of Health Professionals in Chile (Superintendencia de Salud, 2015), currently, there are 3,094 graduated occupational therapists. However, the number of occupational therapists working in paediatric settings is unknown. In sampling participants, the aim was to identify “key informants” (Thorne, 2008, p. 91), who could provide insights into occupational therapy practice in Chile in paediatric settings. Key informants are individuals who are members of the community under study and who have direct experience of the phenomenon that is being explored. Diversity of
experience can help in gaining a comprehensive knowledge of the phenomenon (Thorne, 2008). Consequently, a purposive sampling method was chosen as the most appropriate way to access participants who could be considered key informants, and who could provide data that was rich and illuminative (Patton & Patton, 2002; Thorne, 2008), offering useful insights regarding professional practice in Chile.

Occupational therapists were invited to participate if they were working in the field of paediatrics in Chile. Ten participants, two males and eight females, were recruited with a diversity of professional profiles, based on the following criteria:

(a) **Years of experience.** Categories of experience were determined according to the levels of expertise suggested by Schell and Schell (2008). Participants were recruited with less than 1 year of experience, between one and three years, three to five years, and more than 10 years of professional experience. As highlighted earlier, it is clear that, as occupational therapists increase their expertise, their CR evolves in complexity. Given that expertise develops on a continuum from novice to expert, and each category is associated with years of professional practice (Schell & Schell, 2008), it was relevant to purposively select participants in each range of experience. Two out of ten participants had less than 1 year of experience, two participants had between one and three years of experience, one participant had between three and five years of professional practice, two participants had between five and ten years of experience, and three had more than 10 years of experience. In the last group, over 10 years of professional practice there was one participant with more than 30 years of experience. On average the ten participants have 7.2 years of clinical experience.

(b) **Professional development.** The study recruited occupational therapists with a mix of formal professional qualifications as follows: no Bachelor degree, Bachelor degree, Graduate Diploma, and Master degree. Regarding postgraduate studies, in Chile there is only one Master degree by coursework being developed in the field of Occupational Therapy and there are no Doctoral degrees. Given that, the number of Chilean Occupational therapist who achieve higher degrees is very low (Colegio de Terapeutas Ocupacionales de Chile [COLTO], 2014), it is important to represent this in the sample. In the sample, five out of ten participants had Bachelor degrees, four of them achieved Graduate Diploma, and only one
participant was a candidate for a Master’s degree. There were no participants who achieved a PhD.

(c) Geographical area. There are three main geographical areas in Chile - Northeast, Central and Southeast. Given that Chile has a long and narrow geographical distribution, these areas differ enormously and have a wide range of characteristics. According to the information published by The Chilean Association of Occupational Therapists (Colegio de Terapeutas Ocupacionales [COLTO], 2014), 71% of the Chilean therapists work in the central area, 24.6% work in the Southeast area, and only 4.4% work in the Northeast area. In the sample, there were six participants from the central area, two from the northeast area, and two participants practicing in the southeast area.

(d) Therapeutic setting. Participants were recruited from a range of different settings, including rehabilitation centres, schools, mental health, hospitals and community based programs. Four out of ten participants were practicing in rehabilitation centres, three participants in Hospitals, two participants in schools, and one participant in a mental health community centre.

(e) Institutional context. Participants were sought from public and private institutions, as well as non-governmental organizations. There were five out of ten participants working in private settings, three participants working in public institutions and two participants worked in non-governmental organizations.

4.3 Data collection

4.3.1 Recruitment process

As appropriate in the Chilean culture, the principal researcher used her professional networks to establish links with occupational therapists that were practicing in paediatric settings throughout Chile. This was the primary strategy used to connect with therapists, as
there was no national registration body in Chile that had a complete database of working occupational therapists. Following this, a snowballing approach was used to recruit further participants through the professional networks of the initial occupational therapists contacted. Snowball sampling is described by Patton (2002) as an approach used to find “information-rich key informants or critical cases” (p 237). Snowball sampling also aligns with cultural expectations in Chile, as explained below. Using this recruitment method, a chain of Chilean occupational therapists was established in order to locate informants that met the inclusion criteria.

Several aspects of the Chilean culture influenced the recruitment and the responses of invited occupational therapists. Bazoret (2006) suggested that in Latin America, particularly Chile, there is a social practice deeply rooted in the society called backscratching, in which “the access to goods and services is based on exchange of favors, through reciprocity and friendship ties” (p. 69). Consistent with this principle, participants who had a personal relationship with the principal researcher were willing to participate right from the first communication with them. However, those who had a more distant relationship spent more time answering invitations and agreeing to be part of the study, and four of those occupational therapists who initially had agreed to participate, rejected the invitation after receiving the consent form and information sheet. Regarding occupational therapists that did not have any relationship with the principal researcher, the communication was generally difficult and six of them never responded to the invitation.

In addition, the Chilean Association of Occupational Therapists was asked on four occasions to distribute information about the study to its members (approximately 10% of working occupational therapists in Chile). This information invited members to contact the researchers if they were interested in participating. After agreeing to distribute the invitation, this dissemination did not occur, and the final communications from the principal researcher went unanswered.

4.3.2 Data collection

As the research aimed to collect data regarding the perspectives and experiences of the informants and to “get as close to the subjective experience as the researcher reasonably
can”, (Thorne, 2008, p. 125), in depth and semi-structured interviews were conducted. Given that the participants, as health professionals, were familiar with this strategy for collecting information, it was considered an effective way to capture information about their experiences of CR and professional decision making. These interviews were structured in two parts (See appendix B). The first included questions that generated a demographic profile, giving personal information related to the participants’ training, experience and work setting. The second part was made up of open-ended questions that explored widely the sources of information that participants use in their daily professional practice for CR and decision making.

The interview was developed and refined by the research team, and before piloting the instrument, the principal researcher translated the interview from English into Spanish, and a Chilean physical therapist that has a PhD in Rehabilitation Sciences, checked the translated interview for accuracy. One Chilean Occupational therapist with five years of experience in paediatric settings, currently practicing in the central area of Chile, was invited to participate as a research assistant. The principal researcher, a Chilean occupational therapist (located in Australia) and the research assistant (located in Chile) undertook training sessions conducted by other members of the research team, who were experienced qualitative researchers. The aim of the training was to ensure that the interviewers had the appropriate skills to be a “neutral facilitator” (Thorne, 2008) and enable participants to explain in detail their perspectives and experiences. A pilot stage of interviewing was conducted in Chile with the additional purpose of ensuring cultural appropriateness of the interview questions. This was undertaken by interviewing two occupational therapists and one physical therapist who were working in paediatric settings. Based on the piloting, a number of questions were added to the interview in relation to accessing scientific information, with the aim of prompting participants when this kind of information could not be spontaneously reported.

Prior to conducting the research, institutional human research ethics approval was obtained at The University of Queensland (See appendix 6). As the participants were not able to participate in the interviews during their work time, institutional approvals were not required. As practitioners are ethically under the aegis of professional associations, these organizations can act as overseers of the involvement of its practitioners in research projects. Consequently, gatekeeper approval to proceed with the study was requested of the Chilean
Association of Occupational Therapists. However the association was not familiar with this kind of ethical procedure and, after sending translated gatekeeper letters to them and introducing the Association board to the meaning of the gatekeeper letter, the Association did not respond and further contact was not pursued. Participants were provided with an information sheet outlining the aims of this project and also completed a written consent form. Additionally, the demographic profile was sent to the participants before conducting the interviews, providing information that corroborated that the participants met the inclusion criteria.

Data were collected by the interviewer in Chile through face to face interviews and videoconference. As the participants were from different regions of Chile, six out of ten interviews were with participants living in distant cities from the interviewer, and these interviews were conducted through videoconference using the online communication platform Skype. The interviews were conducted at a time and place that was convenient for participants and it took between 45 and 90 minutes.

The interviews were conducted in Spanish, audio-recorded, and then transcribed verbatim in Spanish. This ensured that relevant detail was captured and considered. With the aim of ensuring anonymity, all the transcripts were de-identified, and pseudonyms were chosen by the principal researcher, and assigned to each participant. An experienced professional translator translated transcriptions from Spanish into English and the translated interviews were revised by the research team (both English- and Spanish-speaking), to ensure accuracy of the meaning conveyed in the English text, considering the extensive use of professional language and Chilean slang.

In the Participant Information Sheet, observations of therapy sessions were requested in order to gain a better understanding of the context in which the participant worked. The purpose of these observations was to inform interviews, rather than to collect data. However, observations did not eventuate. As anticipated by the researchers, in the case of those participants who lived in the northeast and southeast areas in Chile, it was not possible to observe the sessions due to the distance between their workplace and the interviewer. However, for those living in the central area, close to the interviewer, observations did not eventuate, despite being requested a number of times. Requests were made first at the time of
scheduling the interviews by email correspondence, and then immediately prior to the interview, whereby the research assistant again asked if observations could be made. All participants declined to be observed, arguing that it was not possible given the restrictive institutional policies, the complexity of “convincing parents” to accept being observed, and the lack of time and small spaces in which they were working. Reluctance to agree to being observed appeared consistent with the cultural mores in Chile. Given that it was not possible to observe therapy sessions, Gatekeeper approval was not requested of the institution where each participant worked.

4.4 Data analysis

Interpretive description engages with the qualitative tradition of codifying data (Thorne, 2008), by which coding categories are inductively developed from the data. Data analysis commenced with a process of immersion in the data, which involved transcribing verbatim the 10 audio and video recordings, translating and checking the accuracy of the gathered information and multiple readings. Summaries of each interview were made with the aim of providing additional information regarding cultural considerations such as the meaning of jargon and idiomatic expressions that were difficult to understand. The thoughtful process of immersion allows researchers to distinguish similarities and differences in the data, theorizing about relevant common themes and capturing an overall picture of the research findings (Thorne et al, 1997).

The information gathered was inductively sorted and organized through the creation of codes and categories. The principal researcher and a second member of the research team independently read the transcripts and wrote notes for potential codes. Then, they met to compare and reflect on these potential codes and consensus was reached through discussion about the main concepts in the data and, consequently, coding categories were refined. With the aim of testing the coding strategy, new summaries were made for each of the ten interviews transcriptions. These were developed with an emphasis on capturing the diversity of the whole data. A third member of the research team was incorporated into the process, and two summaries of interviews were independently coded again. Through discussion and
by reaching consensus, the research team defined the final coding strategy. Two members of the research team used this coding strategy to independently code 20% of the data and then agreed that this strategy would be used to code the remaining data.

Following data coding, review of the data as a whole revealed themes that went across codes. For instance, CPD available appeared to determine assessments, interventions and expectations of the OT role, and, thus, pervade these codes. Themes were discussed by the research team with reference to the coded data, and the coded data was again reviewed across codes, and allocated to the pervading themes. Through this process, an overall conceptual framework was developed that comprised two major categories with themes in each. The computer software Nvivo 10 (QRS International, 2015) was used for data management. The final coding strategy is included in Appendix 1.

Interpretive description uses a variety of strategies to achieve credibility, with Thorne et al (1997), arguing that “attention to rigor in the process and the reporting of that process is critical to an interpretive description” (p.175). An audit trail of reflections was kept in order to document the researcher’s thoughts and feelings during the interviews (Thorne, 2008). Field notes recording information about the context of the interviews provided a useful background to the data. Member checking, in which preliminary conceptualizations and interpretations were sent back to the participants for their critical consideration, was used to enhance credibility of the data analysis. Therefore, a summary of findings and initial reflections were sent to the ten participants, asking them to deeply reflect on the contents of the document. Participants were asked to provide feedback to the research team, regarding whether or not they felt the document represented their perspectives, and to incorporate any information they consider important to include. Nine of the 10 participants provided feedback to the research team, enriching the initial interpretations developed. Thorne (1997) suggested that this strategy “creates optimal conditions for challenging emerging theorizing and refining theoretical linkages” (p.175).

The findings that emerged from this study, were discussed in the light of the EBP framework chosen in this study (Hoffmann et al., 2013). Additional strategies were developed, with the aim of supporting a “thoughtful examination, reflection and reinterpretation” (Thorne, 2016, p.215) of the data. For example, informal discussions were
undertaken with three Australian occupational therapists working in paediatric settings, which provided insight regarding cultural considerations and practice in developed countries. The reflections that arose from these interviews served for the interpretation of the data from Chile.
CHAPTER FIVE

5. Findings

Themes that were evident across the data fit into two major categories. The first category describes and contextualizes the participants’ professional practice in Chile, serving as a prologue and framing the rest of the findings. It reveals cultural considerations and captures the local perspective of these Chilean occupational therapists working in paediatric settings across the country. The second category describes themes that strongly emerged across the codes in relation to influences on decision making and how practitioners build knowledge.

5.1 Describing clinical practice in paediatric settings in Chile

Participant responses described how services were provided within their service setting. This included referral to the service, expectations of the occupational therapy role, the context and structure of the service provision, and how assessment and intervention was typically delivered.
5.1.1 How are children referred to services and what is expected of the occupational therapy role?

This section describes how clients were referred to the organisation, how they were referred to occupational therapy, and what was expected from occupational therapists by the organisation, other professionals and the clients’ families.

All participants were part of a professional team that provided services in: rehabilitation centres, which were non-government organisations; health networks, which included hospitals and community health centres and were either government funded or in one case, private; special schools; or private community practice. Rehabilitation and health network teams were led by doctors, and special school teams led by teachers. In the private community practice, a full team of therapists was not established, for example, no physiotherapy services were available. In this practice, occupational therapists coordinated their work with the other disciplines available only when parents could afford to pay for more than one professional service for their children. When this was not the case, occupational therapists delivered services isolated from other disciplines.

Regarding the referral process to the organisation, participants who were working in special schools reported that children accessed the school through referral orders from health professionals, regular schools or other special schools with fewer therapy services. However, decisions about which children received occupational therapy within the special schools were made by the Director of the school, based on his or her personal experience. In some cases, participants felt that this overcrowded their caseloads, or that children who could most benefit from therapy were not selected.

“At the beginning they [The Director and teachers] gave me all the children with severe damage, they assigned me all the children with autism and Down Syndrome...it happens that I observe a child in the classroom and I ask the teachers “Why is this child not attending OT? He has Asperger’s Syndrome” And they say “Ay! I didn’t know you could see this child!”... I detect those children in the classroom, but also during the playtime.” (Teresa)
To receive services in public hospitals or community health centres, children had to be referred by any institution that was part of the public health network, but for services in rehabilitation centres, the private hospital or the private community practice, children could be referred from schools or other health or rehabilitation centres. Participant responses suggested that in hospitals and rehabilitation centres, children must be referred to occupational therapy services by doctors, or doctors needed to approve referral orders initiated by other team members, before forwarding the child’s referral to the occupational therapist. Responses given by the participant working in the private community practice indicated that children could be referred by teachers and health professionals, but they had also accepted children based on their parents’ concerns only, if the parent was able to pay for the service.

The expectations about the occupational therapy role were also discussed by participants. Most occupational therapists reported expectations from professionals who referred the child, and only two participants mentioned they have considered the parents’ expectations. Seven participants reported that, in terms of intervention, it was expected that occupational therapists assess and treat children using the sensory integration approach. Four participants working in schools, rehabilitation centres and private community practice said that other professionals expected occupational therapists to make significant decisions about the child, such as diagnosing the child and making recommendations about their schooling. For example, one of the participants explained that based on her observations, she elaborated the occupational therapy report, which was used to decide on the appropriate school system for each child:

“Many times they [teachers from regular schools] ask us to assess the child first to see if it’s necessary to send him or her to a special school. We assess them, and if so, we check if we have a space for that child [at the special school] or if it’s necessary to refer him or her to another centre.” (Sara)

Some participants identified the aspects of the child’s performance they were expected to address. Four participants reported that therapy for activities of daily living and motor
skills was commonly requested, and three participants reported that they were expected to manage the child’s behaviour. Other expectations mentioned by participants included working on hand skills and handwriting, the parent-child relationship and attachment, school integration, vocational training and swallowing disorders.

5.1.2 The practice context

This section describes the resources that occupational therapists had available to perform their job, such as the time and number of sessions available for seeing clients, and physical resources provided to support their clinical practice. Understanding of the community and organisational staff regarding occupational therapy as a profession also formed part of the practice context.

The time available for each client session varied considerably depending on the setting, and ranged from 15 minutes, reported by a participant who was working in a school, up to two hours and 15 minutes, reported by a participant working at a public mental health community centre. However, most participants suggested that they had limited time for seeing clients, and significant workload, so they felt time pressure to see as many children as possible. In some cases, the organisation imposed strict time limits on the length of client sessions. The desire to have more time available was reported by the majority of participants:

“I would like to have time to elaborate certain treatments, because we know that the intensity of some treatments is fundamental for being effective, and sometimes that is not possible due to the administrative policies of my institution.”
(Vanessa)

An exception to this was one participant, who was working in a public hospital which was funded by a university for clinical training. In this situation, there were no external
expectations regarding the number of clients seen per day and this therapist could use a whole working day to see one client if deemed necessary.

In most organisations, the therapist’s timetable was organised by administrative staff following a pre-determined pattern of weekly appointments. Only three participants mentioned that they had the flexibility to organise their own therapy sessions, and could therefore tailor the length of their sessions by combining several weekly slots into a longer monthly session to suit parents’ ability to attend.

Most participants suggested that the number of sessions provided to each family depended on institutional regulations, and was predetermined for all children, offering for example 10 or 20 sessions. In some cases, the service defined the structure of sessions according to the child’s diagnosis or specific programs in which children were enrolled.

“The patients come for a cycle of 3 months treatment, 6 months or a year... Twice a year we have a planning time, we review the list of our patients from each area. There we decide how many cycles of treatment the patients will get during the year. Then we know if there is a child who needs it, we reserve a space right away. For instance, if the patient comes from Sensory Integration we assess him or her only once a year, and joins in for the whole year, because the changes are very slow. If the patient has psychomotor delay, we evaluate him or her every 3 months. The child is checked by the Physiatrist and she decides if we continue with the treatment or if we discharge the patient.” (Pamela).

Only one participant working in a private community practice reported that she determined the number of sessions in collaboration with the parents, according to how many sessions they could afford.

Regarding physical resources, participant responses indicated that to some extent, all of them lacked resources. Although three participants explicitly stated that they had enough resources to work with children, they reported environmental conditions that limited or interfered with their practice, such as shared, overcrowded therapy spaces where multiple
therapy sessions were being conducted simultaneously. This restricted their ability to interview parents regarding sensitive topics, to create a conducive environment for children with attentional and sensory processing disorders, or to always use therapy activities they considered ideal due to limited equipment availability. Seven participants mentioned scarcity of resources and tools for assessment, particularly standardised assessments. Six occupational therapists reported shortages of equipment needed for applying sensory integration therapy and one participant mentioned a lack of tools required for applying Bobath therapy. Particularly adverse conditions were reported by two participants, where the occupational therapy units had to work without basic resources. One participant from a metropolitan private hospital stated:

“Sadly we don’t have the best conditions, we don’t have a place to treat the patients. We have a good team... The bad thing is that the [institution] doesn’t do much for us. We have had to organize a training course to earn [money], so we were able to implement a room. However, this room is shared with the respiratory care unit, so when there are appointments with patients with respiratory issues, we cannot use the room. Slowly we have acquired 1 mirror, 2 mats, and we keep the room clean...I bought the toys we have now, but that was a long time ago, they have not given us any more toys.” (Pedro)

The second participant, who was from a public hospital in a remote area, described a context devoid of rudimentary resources. Discussing the resources needed for assessing clients and for making splints, she stated:

“Hahahaha, well, for doing the kind of assessment I am doing now, yes... I have my eyes, pencil and paper. But I have not even a place, the occupational therapy room doesn’t exist. Now the [institution] is having improvements, so we are working in [adapted shipping] containers, and I share this container with the physiotherapists. I have a table and a shelf, that’s all... Generally I make splints with borrowed material, I ask my colleagues from [another institution] to give me...
all the small pieces [of thermoplastic] left over, so I can use them with babies in the neonatology unit. I have made some splints with gypsum, the last time I made one it was from cardboard, I make splints from any material I could find, but it is because I make them for little hands. When I receive splint prescriptions for adult patients, I have to refuse it, because I don’t have thermoplastic.” (Jacquie)

Responses given by three participants suggested that the profession of occupational therapy was not well known by the public and other health professionals that were part of the team, which impacted on several aspects of their practice. For example, one participant explained that children were rarely referred to the occupational therapy service in her public hospital, but rather she needed to enquire from physiotherapy colleagues whether she could see any of their patients. Another participant in a private hospital was only invited to provide services in the neonatology unit after a nursing colleague had a child with a disability and experienced occupational therapy with her own child in another organisation. A third participant working in a remote area stated:

“Well, it is established that an OT should be part of the team [within a national health program for a specific diagnosis], but it doesn’t happen everywhere. It is a very complex situation….as the health team doesn’t know what occupational therapy is, nor what we could achieve working with these children, they don’t consider OT.” (Luisa)

5.1.2.1 How assessment is typically delivered

This section describes the assessment process that was undertaken, either by the occupational therapist or the professional team, once a child had been referred to an organization. Participant responses reflected the diverse nature of their professional experiences, clinical settings, geographical locations, and types of institutions in which they worked.
After referral, one of two different initial assessment processes could be undertaken, depending on the organisation. Four occupational therapists stated that as a part of the institutional regulations, children and their families had to be assessed by the multidisciplinary team, led by a doctor, as an initial intake process before receiving occupational therapy assessment. In the other six cases, occupational therapists were able to conduct their assessment of the child without this initial intake process. Most participants reported that they used one or two sessions for assessing clients, however seven participants indicated that assessment and intervention occurred simultaneously within therapy sessions. Some comments suggest that participants saw combined assessment and intervention as a fundamental principle of occupational therapy:

“We work on handwriting skills, and following the process of occupational therapy, we intervene and assess at the same time.” [Sara]

Participant responses indicated that assessment mainly involved observing the child, interviewing parents and applying a limited range of standardised tools. Most participants mentioned that they had defined their own structure for the assessment. The participants’ comments regarding observations of the child suggested that they relied primarily on clinical expertise for this aspect of their assessment. Therefore, a description of how they conducted these observations and what they observed are detailed in section 5.2.1.1.2

Most participants indicated that they did not use a defined structure for parent interviews. Only one participant reported that the parent interview was guided by a standardised assessment tool, from which she selected particular questions:

“For interviewing parents I use as a guide - some parts of a tool that comes from the model of Human Occupation, it is named Scope, and it’s a semi-structured interview.” (Victoria)
Standardised assessment tools used by participants covered five main areas. Nine participants reported that they used tools for assessing sensory integration, and four participants used tools for assessing motor development. The same tools for assessment of sensory integration were mentioned by most participants, including the Sensory Profile (Dunn, 1999), the Sensory Processing Measure (Miller-Kuhaneck et al., 2007), Ayres’ Clinical Observations of Sensory Integration and the Beery Test of Visual Motor Integration (discussed as a sensory integration tool). Most therapists applied two motor assessments developed in Chile: the EEDP (Rodriguez et al., 1974), for children under 2 years and the TEPSI (Haussler & Marchant, 1980), for children from 2 to 5 years old. The Bayley Scales of Infant Development (Weiss et al., 2010) and the Miller Assessment for Pre-schoolers (Miller, LJ., 1982) were used by two participants. Although seven participants worked with children with neurological conditions, only two participants mentioned using tools that were designed to assess hand and upper limb function specifically with this population (QUEST (DeMatteo et al., 1992), MACS (Eliasson et al., 2006) and House, Gwathmey and Fidler Thumb Classification Scale (House scale) (House et al., 1981). Three participants reported they used tests for diagnosing autism (ADOS (Lord et al., 2000) and PEP (Schopler et al., 2005)).

Regarding assessment of occupational performance, three participants used standardised tools for assessing activities of daily living (WeeFim (Msall et al., 1994), The Barthel Index (Mahoney & Barthel, 1965). Other three participants suggested that they assessed activities of daily living through asking parents how children perform at home. One participant had used The Role checklist for assessing occupational roles (Oakley et al., 1986).

One participant with 12 years of professional practice described her experience applying tools such as MACS, House Scale and VMI. She reflected on how these tools were being used in her context, and suggested that the quality of the assessments conducted by occupational therapists in Chile was affected by the lack of standardised processes to guide their application. This sometimes occurred because therapists did not have access to the published assessment manuals. The participant stated:

“However, those assessments are a bit subjective...when I am using VMI [visual motor integration test], this one is a subjective assessment as well, because I can
judge that one drawing was made adequately, but another colleague could think that it is wrong... In that sense, I believe that here we are not applying tests in the way how we should be applying them, or interpreting the test in the way how we should do it, because for example, in VMI we should measure the drawings using a protractor, but in general here we skip those rules!” (Vanessa)

5.1.2.2 How intervention is typically delivered

Participants described the types of goals they routinely developed for clients, which intervention approaches and techniques they applied, and how they measured outcomes. For most participants, the goals that they frequently established for their clients in daily practice matched the expectations of their occupational therapy role communicated to them by other professionals and parents. Nine participants reported that they primarily addressed “sensory integration disorders, sensory issues or sensory–perceptive skills”. Goals such as improving performance in activities of daily living, motor development skills and managing behaviour were cited by five participants. Participant responses suggested that there were commonly understood and shared beliefs about which goals were the core business of occupational therapy:

“My goals as an OT are to keep and improve fine and gross motor skills, because that area is affected in all the children. Regulate sensory-perceptive skills, with the aim of improving connection with the environment and adaptive responses, which all children need. I work on basic and instrumental ADL that is what I work in for the whole year.” (Teresa)

Four participants reported they had promoted abilities required for school performance, and two participants mentioned that they focused on goals related to attachment and the parent-child relationship. Two participants routinely addressed goals related to oral sensory
processing and swallowing disorders. Goals such as strengthening self-esteem, adapting the environment and supporting social inclusion were mentioned by one participant.

Regarding intervention strategies and techniques, three main approaches were frequently reported. All the participants indicated the use of sensory integration for treating children with a wide range of diagnoses such as autism, ADHD, attachment and behavioural difficulties, cerebral palsy, traumatic brain injury, congenital diseases, cancer, intellectual and motor disabilities, Down syndrome and motor delay. Two of the participants who initially mentioned using sensory integration, later clarified that they were actually using “sensory stimulation”, as they had not yet completed formal sensory integration training as part of their CPD.

“I am applying sensory integration... well, more than anything I am doing sensory stimulation, because I didn’t take the training, it is just what I learnt during my clinical placement, and at the University, that’s all. It’s because is part of our job, you cannot leave it out, and even when I didn’t take the training, I cannot avoid sensory integration issues because I know that it affects the motor development. Regarding parents I always teach them about motor development and sensory integration.” (Jacquie)

Neurodevelopmental Theory-Bobath was the next most frequently mentioned approach. Five out of seven participants working with children with neurological conditions used this approach, and some stated that they felt it was the most appropriate intervention approach for clients with these diagnoses:

“At [rehabilitation centre] we were taught with BOBATH concept, which is the most important trend in rehabilitation.” (Pedro)

Interventions related to the MOHO were applied by four participants. They described the essence of this approach as using meaningful activities and structuring the client’s
routines. In addition, animal therapies, such as dog-assisted therapy and equine therapy, were routinely used by two participants. Both participants explained that if therapists wanted to use equine therapy, it was expected that they had undertaken sensory integration training as this therapy was considered to be based on a sensory integrative approach:

“We have another program, equine therapy. We give it from the Sensory Integration approach. There are two groups of equine therapy, one is given by the Physiotherapist and the other one by an OT, this last one is approached to treat Sensory Integration disorders’. (Pamela)

A variety of additional approaches were mentioned by one participant each, including positive parenting, Floortime (which appeared to be associated with DIR Floortime® (Greenspan & Wieder, 1999)), Yoga, cognitive-behaviourism, drama-therapy, Theraplay (Jernberg, 1979), Shantala and Landen massage.

All participants reported two main strategies for measuring outcomes from therapy: observing the child’s physical and emotional signs; and asking parents, teachers and the medical team’s opinions about the child’s progress.

Only one participant reported the use of standardised tools to evaluate outcomes, explaining that the purpose was to provide objective evidence to doctors for discharging clients from the institution. Five participants reported that they observed the child’s physical signs to determine the progress made. They reported that observations were focused on detecting whether the child was achieving motor milestones or better motor coordination. They also observed whether the child appeared to be behaving better and whether their spasticity was reduced. They explained that these observations meant that the child had overcome the main problems identified during assessment. Seven participants reported that observed the child’s emotional signs, such as seeing the child smiling, being happy, not crying, asking to come to occupational therapy, appearing motivated and showing initiative to participate in the therapy session. For three participants, these observations constituted their only strategy to measure outcomes of the intervention. The most experienced participant provided the following example:
“Mmm... I don’t have an indicator of achievement. You see the child arrives content, he or she didn’t refuse to come in, or when the child enters my office he or she tells me “I have brought this idea to work”. Before, the same child arrived, looked around and did nothing. So we observe the child’s capacity of processing ideas, the joy, the motivation and the capacity to get organized... to this child I didn’t have to indicate him or her what to do, he or she got organized by himself or herself....if the child is respectful with others, able to apologize with the other...I mean, in all the spontaneous activities and not the directed ones, the children show me that the treatment is working.” (Maria)

5.2 How paediatric occupational therapists in Chile use and build knowledge

In relation to the knowledge that underpinned participants’ clinical decision making, two themes strongly emerged. The first theme was related to the main sources of information that influenced the decisions made by participants when working with children. The second theme described how practitioners built knowledge, the sources of knowledge available to them, and the main barriers they faced when accessing professional knowledge.

5.2.1 Sources of information influencing decision-making in practice

Participants’ responses indicated which sources of information they commonly used in practice for making decisions about their clients. When making decisions, participants considered both information about the child that they gathered from different sources, and their clinical expertise, as illustrated in Figure 1:
5.2.1.1 *The client’s information*

Participant responses indicated that the information obtained about the child primarily influenced the decisions made regarding the goals and the intervention plan. The primary data used to guide participants’ practice were gathered from four sources: the referral order; the child’s assessment; the information provided by the team members; the role played by families and children; and organizational culture and clients’ circumstances.
5.2.1.1.1 The referral order

The reason for referral was one of the sources of information identified, which was mentioned by seven participants as a factor considered for decision-making. For most participants, the referral for occupational therapy was always made by doctors, with the exception of private centres where any professional could refer the child or parents could request intervention without having a referral order. Participant responses suggested that in the referral order, doctors or other professionals had asked them to work on specific goals, to apply defined assessments or to diagnose the child:

“A few times the referral order instructs you which assessment to apply. Commonly, doctors ask for specific assessment when the children have had surgeries or they have [received Botox infiltration]. Then, they ask us to apply QUEST [Quality of upper extremity skills test]. To apply QUEST, we need to follow a structure if the child has had surgery, and to the lesser extent if the child has received infiltration”. (Benjamin)

Other participants stated that in referral orders other professionals required them to use specific approaches to treat clients:

“The neurologist sends to us referral orders stating: “hyper-responsive child, referred to occupational therapy, he/she must receive sensory integration therapy.” (Teresa)

Two participants reported they had faced difficulties regarding referrals, when the centre had a high demand for occupational therapy services. For example, one participant was working in a rehabilitation centre that belonged to a governmental institution, and it was the only centre in the whole country providing rehabilitation services for their employees. The participant stated that some children were over-diagnosed, or they had purposively received incorrect diagnoses such as Attention Deficit Hyperactivity Disorder (ADHD), with the aim of forcing the acceptance of the child for therapy. The participant explained that the diagnosis of ADHD was part of the inclusion criteria for being accepted by the centre. She therefore
felt responsible for accurately assessing that the diagnosis stipulated in the referral order was appropriate.

5.2.1.1.2 The child’s assessment results

All participants suggested that assessment results were a key source of information for making decisions about the intervention goals and approaches. The strategies used to assess clients involved observing the child and, to a lesser extent, the use of assessment tools. Observation was widely reported by all participants as a primary way of assessing. Responses indicated that areas such as activities of daily living, handwriting skills, motor coordination, behaviour, and motor control and posture in children with neurological disorders, were mainly assessed through observation. Responses given by seven participants suggested that observation constituted their main strategy to assess clients, and the only strategy used by one participant with 10 years of experience, who stated that “to assess children, I use only my clinical observation.”(Jacquie)

Participant responses revealed that therapists working in private settings had available a wider range and number of assessment tools, compared with those working in public settings. In addition to observation, some participants described assessment as including the use of standardized assessment tools and informal assessments, which were only available for some areas of performance. One participant working in a special school stated:

“To assess handwriting skills, specifically, we don’t have any established pattern to assess. I watch the child, find out his or her age, if he or she is about 7 years old I assume the child should be holding a pen and developing hand dominance, then we start holding the pen and I tell them “please help me to draw here”... Here we have color boards and everything is through games, otherwise is boring for them and they don’t connect” (Sara)
5.2.1.1.3 Information provided by the team members

Information provided by team members was the second source of information about the child that was valued as relevant by the majority of participants. Therapists working in hospitals mentioned that the medical team was one of the first sources of information they accessed, before seeing the client. One participant explained:

“Well, with inpatients I receive the referral order first, then I check the medical chart, however often the medical chart does not say much, because it is not possible to understand the handwriting, and also people write few things only. Then, I talk with the doctors, and also with the nurses and the paramedics, then they give me a lot of information about the child.” (Jacquie)

Additionally, one participant with less than six months of experience working within a special school mentioned that she deferred to the teacher’s knowledge and gained her approval for occupational therapy goals and interventions:

“We always talk with the teacher, if I discover a new goal to achieve I tell the teacher “you know, I discovered such thing, do you approve it or you don’t? You tell me because you know the child better than me, I have these ideas to work, tell me if it’s okay”. This way we create a team of work... how do I decide what to work? I decide it along with the teacher, she tells me what she needs and I give her my support.” (Sara)

5.2.1.1.4 The role played by families and children

Information provided by parents was the fourth source of information reported by all the participants. However, their responses suggested that the role played by parents and children in determining their service provision was limited. Responses also indicated that the
parent’s and child’s observed behaviour was considered by participants when making decisions regarding the intervention.

“If I have a child who spends 30 minutes with me and he is doing so well, I cannot tell him “OK, now we have to go to the classroom!” Then, I work with him a bit longer, focused in new goals. I also have some children who never engage, children who get violent and hit me, they want to break the windows. I remove these children from the therapy session, and later, all that time we didn’t use, I add it to another child who is well behaved”. (Teresa)

All participants mentioned that parents or caregivers were mainly asked to provide information about the child’s performance at school and at home, inform the therapists about the child’s main difficulties, and complete questionnaires:

“We are always three professionals who apply assessments, so we take turns. There is one who talks to the parents and gets the history of the child... what is the situation, why was the child referred to us. They come in [therapy room] at the beginning, then we ask them to leave, so we can focus just on the child... while we are assessing the child, they fulfill the sensory profile. That’s their collaboration.”(Sara)

Six participants stated that parents were also asked about their expectations of therapy. Only one participant working in a private community practice mentioned that parents had the opportunity to prioritize goals. This occurred to varying degrees with different parents, according to their economic situation and capability to afford the intervention:

“We decide as OTs if we will work with the child alone, or along with other professionals, for example, with the Educational Psychologist depending on the
The way in which parents engaged with the intervention process and their ability to follow instructions from the therapist at home was also described by four participants as influential in deciding on goals and intervention approaches. For example, one participant working with children with neurological conditions suggested that, depending on the child’s family, she would decide whether to make a soft splint or a rigid splint:

“First, I see what the priority deficit in the child is, and the other thing is that it’s super important, is the participation of the family. There are some treatments that must be given at home, like therapy taping and the splinting, then the families must follow the indications given by the professional. Depending on each family, I decide what splints to give them. For instance, if a mom tells me she doesn’t have time to work with the child, I decide immediately to give the patient a rigid splint, because if I give the child a flexible one, for sure he or she will lose it or won’t use it. If I indicate taping... I need the parents’ help to replace it, or even better I give them a rigid splint that is going to last longer.” (Pamela)

Overall, participants’ responses suggested that the family’s involvement within the assessment and intervention processes was very limited. Therapists indicated that many parents of children they saw for therapy were not permitted to be involved in therapy sessions, and they had to wait outside the occupational therapy room when children were receiving treatment.

Only two participants reported they had invited parents to actively participate within the session. Another two participants explained that parents were included when the occupational therapist was working towards motor development with babies, or when parents
were not convinced about the reason for referral. Then, parents were invited to observe the therapy session:

“Only when we see families who aren’t convinced of the reason for the referral or they don’t know why they are here, we invite them to stay here during the assessment. So, when they receive the report, they understand what we are talking about.” (Maria)

Two participants working in special schools reported that most families belonged to low socio-economic classes, and parents had high expectations about receiving occupational therapy services as they could not afford to pay for private sessions. At these schools, only a small number of children received therapy, as occupational therapists were hired for only a few hours per week and the service was rarely available, especially in remote areas. One of these participants mentioned that they had established communication with parents through using a school notebook, but parents were not allowed to visit the school nor have direct communication with the occupational therapist:

“I created a system of constant communication with the child’s teacher, because she has better contact with the parents, otherwise I use their agenda [home folder] ... Every time I need to communicate something or if there is a new achievement I write it there. We created the following rule among us, the teachers and the other professionals who assist the children, we won’t give our e-mail addresses or phone numbers to the parents, and otherwise they would all want to come. Here we are not using the technology, we do it the ‘old style’.” (Sara)

Additionally, this participant explained that parents were informed of their child’s goals when the semester had finished, because she did not have time to interview parents before the school semester. Another participant explained that when the child’s therapy did not worked,
the rehabilitation team asked the parents the reason why it happened, referring them to the psychologist for receiving Bach flower therapy:

“If the child is not progressing, we speak to the family seriously. Many times we refer the child to Psychological therapy; many times they have mental health problems. We also give Bach Flower Therapy in the Center, it’s given by the Psychologist, and she gives it to the child and the family.”

Regarding the child’s involvement, participant responses suggested that they played a passive role in decision-making, and the majority of therapists established a vertical relationship with clients. For example, one participant highlighted the unusual fact that in her workplace, children called therapists by their names, and they do not need to call ‘aunties’ to the therapists, even though it is a cultural practice in Chile. She explained that the centre was particularly focused on children, as they can choose activities and suggesting ideas to work within the therapy session. When occupational therapists were invited to reflect on the child’s role, three participants suggested that the child’s opinion was considered by asking them if they knew why they were attending occupational therapy and what their problems were. Two other participants mentioned that they often purposefully limited the child’s active participation:

“It depends a bit on the child’s characteristics…sometimes due to the availability of time we have, I structure the session so that the child does not have an active role regarding the possibility to choose among different activities, and it is just that I decide what activities to do.” (Vanessa)
5.2.1.1.5 The impact of organizational culture and client circumstances on service delivery

Responses indicated that particular features of the Chilean culture, the practice context and the client’s circumstances shaped the service delivered by occupational therapists. For example, the medical model was seen as predominant, influencing the way in which services worked and the role played by occupational therapists, clients and their families. Social classes and the social practice of “backscratching” (using personal connections to ask for favours) were also raised as factors that influenced how clients accessed the services.

Participants working in hospitals and rehabilitation centres reported working within a hierarchical structure led by doctors, where all the referral orders had to be decided or approved by those professionals:

“If, after assessment, occupational therapists determine the child needs treatment, we need to ask for medical consent before start working in OT service... It also happens that goals are reconsidered, and new detected conditions need to be discussed with the doctor.” (Vanessa)

Participants from remote areas mentioned that they encountered difficulties because the occupational therapy role was not well recognized by health professionals in those contexts. This resulted in a lack of referral orders to occupational therapy from medical staff:

“It would be ideal if the team at the hospital refers clients to me...I think they don’t refer clients due to lack of awareness, because they don’t know what the occupational therapist does. In fact, the physiatrist is the person who helps me, because she visits different units at the hospital, and she is the one who refers clients to me, because the physiatrist knows what we do.” (Jacquie)

This participant also mentioned difficulties working as a team with other health professionals and using specific approaches in practice, due to the medical model being predominant in the setting. One participant from remote areas described how the decisions made by doctors determine the provision of service:
“Well when I receive one patient I have to go and ask them [Physiotherapists], Hey! I have one of your patients, what are you working with him? ... They answer me, “But what it is, a knee? Ok, with a knee we have been working on this!” It is so biomedical! So at the beginning, they were bullying me, because I took my time for doing interviews, but they are ready with everything after 10 minutes. I answered them ‘Hey, you know the ROM and strength of this client, but I know where he is living, with whom, if he needs any help, if he is working... When I talk about CBR [community-based rehabilitation] they get hesitant, I talk about community workshops or educative workshops for parents and they get reluctant! They are not familiarized with this system. The physiatrist recently arrived with the same idea, but she is the doctor, you know! So I am very happy that now we will work with the community’” (Jacquie)

Some features of the Chilean culture seemed to impact service delivery and decision-making. Participants mentioned that clients from low social classes, especially those living in remote areas, had reduced access to services and faced bureaucratic procedures and long waiting lists to receive intervention. One participant from a remote area described that some clients evaded waiting lists, and asked therapists to receive attention as a personal favour. This participant received the families and treated the clients, even though the children did not meet the criteria to be accepted at the public hospital. The participant argued that she must receive these clients, as they were underprivileged and they did not have other options for receiving rehabilitation services.

Another two participants described that they had modified their intervention because their clients lived within deprived and risky environments. The children belonged to low social classes, and they had being exposed, for example, to domestic violence, sexual abuse, drugs or neglect:

“I have a plan for each child, but in addition to the work made within the school, I have to create new activities and goals, give them some homework to do during their holiday season. When children go for holidays in July, they come back in
August worse than before, they have already lost all the achievements they have had. The problem is that my children are socially vulnerable, so they are children who live in orphanages, or they live in situations of domestic violence, and families do not take care of them - all of them are living really sad realities. And some carers never come. I have many children who are abandoned, or only the father takes care of them, or their grandparents. It is difficult to get the grandparents to understand the instructions.” (Teresa)

On the other hand, participants working in private settings explained that children who attended therapy were there due to the parents’ minor concerns about their child. These families were advised by the child’s teacher, or had received recommendations from other parents who belonged to the high social class and had attended the private centre previously. Additionally, participant responses suggested that in private centres, goal setting and the intervention was affected by families having to pay for therapy:

“Along with the assessment I also treat the child, because this is a private system that has to be paid. So I cannot keep asking questions without giving answers. ... Here, as an example, if your son doesn’t know how to tie his shoelaces, would you pay someone to teach your son how to tie his shoelaces? I don’t think so. Probably you would ask for help if your son has tantrums, or if he fights, or if he doesn’t look at you, but you wouldn’t pay someone to teach your child to do his shoelaces.” (Pedro)

5.2.1.2 Clinical expertise guiding occupational therapists’ decision-making

In addition to the four sources of information gathered about the child, clinical expertise was the other main factor that influenced the decisions made by the participants. Eight participants reported that, by seeing children and families over time in their practice, they had learnt to decide on intervention goals and choose approaches to treat children on a daily basis.
Participants reported that clinical expertise gave them the ability to read the child’s body expressions and behaviours, which helped them to anticipate the child’s responses to the intervention. One participant with 17 years of experience provided an example illustrating this:

“We structure the goals of the treatment, and more than establishing a structure for ourselves, we do it for the family, because as we are having more experience, just observing the child we know where we must direct the treatment.” (Pamela)

Relying on professional expertise and the use of intuition were frequently mentioned by most participants, regardless of the duration of their professional experience or professional training undertaken. For example, a participant with five months of professional experience working in a special school, discussed how she decided which assessments to use, stating:

“We don’t work with standardized assessments, there isn’t any assessment that says this child have problems or this other doesn’t, I assess children only using my personal opinion .... I’m not much about using the books, I’ve learned so much more from the experiences also based in the theory, but mainly from my experiences themselves.” (Sara)

Another participant with six years of experience suggested:

“I observe the client, I talk with her/his family, and I can see where the origin of the problem comes from, and the origin of what is affecting the occupational performance. I feel that now increasingly, I don’t know if I am lazier, I do very much less, instead I do it better.” (Pedro)
Three participants with more years of experience suggested that they had developed beliefs about what works with children. These beliefs were linked to the diagnosis written in the referral order and guided their CR and decision making:

“For example, if I have children with attention deficit disorder or autism, the organization of their behaviour is very important... I would say to organize the behaviour of the children is nearly a universal goal for every child.” (Maria)

5.2.2 Sources of information used to build practitioners’ body of knowledge

Participants were invited to reflect on how they built knowledge that supported their clinical practice. They discussed their experiences of four main influences on their knowledge development: undergraduate and postgraduate studies; continuing professional development; the use of informal networks; and access to available scientific knowledge. They further identified barriers to their building of knowledge for practice.

5.2.2.1 The impact of formal education and access to postgraduate studies

This section describes the formal educational opportunities that participants had to enhance their professional development. All the participants recognised formal education as an important source of knowledge.

Only four out of ten participants mentioned that their undergraduate studies contributed to their body of knowledge. Three of these participants were recent graduated from occupational therapy programs, and only one participant who had more years of professional experience identified undergraduate programs as meaningful for building knowledge. This participant stated that at university she had developed her creativity and social skills, gained abilities to work using ergo therapies, and learnt about the different areas of intervention within occupational therapy. All four participants clarified that their most
significant learning within the paediatric field was acquired in the context of their clinical placements before graduating:

“In paediatrics, I learnt everything in my professional placement...I worked in a rural area with children with disabilities, then I worked with one classmate, and the occupational therapist was correcting us... I feel that I missed learning more at the University about paediatric...I received so much information about psychiatry, but I learnt little about paediatrics. Then I have to learn it now.”
(Teresa)

Regarding higher degrees, some participants reported a lack of postgraduate programs available in the field of occupational therapy in Chile. Only one participant was undertaking a Master’s Degree in Applied Sciences by coursework. This participant described the postgraduate program as having a huge impact on the quality of his professional practice:

“Since I started my Master’s last year, I feel that the way in which I practice occupational therapy is very different. Before I was very anxious and I knew little, then I did so many activities... now I do less things, but I think more... The Master’s changed my life, I believe my practice now is more thoughtful.” (Pedro)

Diplomas were commonly mentioned and accessed by participants. Five participants had completed programs that were mostly delivered by disciplines other than OT (e.g. Drama therapy, Positive Parenting), with the exception of one participant who had completed a Diploma in MOHO. The exposure of participants to the knowledge provided by these formal education programs seemed to heavily impact on the way that they approached their clinical practice. For instance, the most experienced therapist stated:

“Here there is a whole outlook that has opened our eyes because we always focus on the needs of the children. Positive Parenting has opened our eyes in terms of the abilities of the children, in the mother and child relationship.” (Maria)
5.2.2.2 The influential role of continuing professional development (CPD)

Participant responses indicated that CPD training in Chile commonly involved workshops, seminars and short-term courses, which were mostly organized by private providers. Responses suggested that the CPD activities available powerfully influenced practice.

Eight out of ten participants mentioned they had undertaken CPD activities. At the time of the interviews, the other two participants had not yet attended any CPD training as they were recent graduates (less than one year of experience), but were planning to undertake CPD, specifically training in sensory integration.

Training in sensory integration appeared to be the most available CPD option and was mentioned by all the participants. Six therapists were already trained in this approach. When asked what would make their practice better, participants expressed a desire to complete or repeat training in sensory integration. For example, the most experienced participant stated:

“My learning has been about Sensory Integration, I have taken every course to receive my certification [given by the Chilean Association of Sensory Integration], and now I’m taking those courses for the second time, because we must update our certification every 6 years.” (Maria)

Participant responses suggested that paediatric institutions were expecting prospective occupational therapy staff to have qualifications in sensory integration intervention in order to be competitive in job applications. Additionally, participants from a range of different settings mentioned that teachers, parents and health professionals expected occupational therapists to treat children using a sensory integration approach. One participant with less than one year of experience stated:

“In the beginning I focused my job 100% in Sensory Integration, because the teachers were saying, according to this positive paradigm we have in Sensory Integration: “The OT gets the child into her room, regulates him or her and
sends him or her back to work, then the child is relaxed and ready to work”." (Sara)

Participants’ responses suggested that the available training largely shaped their professional practices. For example, regarding assessment tools, nine out of ten participants, who worked in a variety of clinical settings, reported applying tools such as the Sensory Profile, the Sensory Processing Measure and the Beery-Buktenica Developmental Test of Visual-Motor Integration, which had been taught in the context of sensory integration training. Similar patterns relating to intervention approaches arose from the data, as detailed in section 5.1.2.2. All the participants indicated the use of sensory integration to treat children with a wide range of diagnoses such as autism, ADHD, attachment and behavioural difficulties, cerebral palsy, traumatic brain injury, cancer, intellectual and motor disabilities, and Down Syndrome. One participant with 17 years of professional experience provided the following example:

“Basically I use Sensory Integration, and principles of the Neurodevelopmental theory... even though when there are children without Sensory Integration disorders, many of those children get benefit from this approach. Then, I use pure Sensory Integration [as an overall approach]. For children with Motor disorders, I use theories of Motor development and Sensory Integration. For children with problems in their relationship I use Sensory Integration and Floortime, which is also a technique based in Sensory Integration.” (Pamela)

The second most frequently reported available CPD training related to MOHO. Responses from four participants indicated that training in this approach was often delivered in Chile, and participants accessed formal education activities such as the Diploma, as well as workshops and short-term activities. Correspondingly, the second most cited group of assessment tools and interventions were also from the MOHO approach. Participants commented that assessment tools and literature regarding MOHO were easily accessed by
them, as it is one of the few approaches that had been officially translated into Spanish by the authors.

One participant provided an illustration of how the availability of knowledge within the organisation regarding particular approaches and frameworks had a significant impact on her practice. This therapist reported that, within public hospitals, there was a protocol for treating children with cancer, established by the Chilean Ministry of Health, which included occupational therapy services based on the MOHO. This protocol made it compulsory for occupational therapists to apply assessment tools and set goals that pertain to this framework:

“We have a book at the hospital called Guide for Prevention of Infant Cancer, where occupational therapy has been included. This book explains all the goals I have to reach with each child in general. In this manual, the goals, as well as the intervention, are based on the MOHO I also have to work in relation to habits and roles [features of MOHO] for children and for parents... It is not the medical team asking me to work on special goals, everything is defined in that Manual...yes, and the manual is established nationwide by the Ministry of Health”.

(Luisa)

Neurodevelopmental Theory (Bobath) was the next most frequently mentioned approach, for which training was regularly delivered in Chile. Participant responses suggested that they felt that Bobath therapy was the gold standard for treating children with neurological conditions. Although only two participants had received formal training in Bobath therapy, five out of seven participants working with children with neurological conditions used this approach.

“Well, I took Bobath. Its framework and bases are pretty much related with what we are doing day by day, how we can make observations, assessments, and how we can orientate the intervention, and it is mainly focused on children with
cerebral palsy... Those techniques complement my knowledge, allowing me to give a more comprehensive treatment.” (Vanessa)

Responses from one participant from a remote area, who had worked with children and adults within a public institution, suggested that the training available also affected the decisions about how resources were provided within the institutions:

“I took the Bobath training for adults, so I talked to my boss, and he allowed me to have the whole afternoon scheduled for adult patients with neurological conditions.” (Jacquie)

While training in Sensory Integration, MOHO and Bobath Therapy were most commonly available to participants, some participants also described that they had undertaken other types of training, which were reflected in the approaches they chose and used in practice.

Participants had variously completed training in Positive Parenting, Floortime, Yoga, cognitive-behaviourism, Drama-therapy, Theraplay, therapy assisted by dogs, equine therapy, Bach flower therapy and Shantala massage. All these approaches were applied in clinical practice. One participant who had worked with children with neurological conditions described how her personal experience practicing and learning Yoga had impacted upon her clinical practice:

“I also use Yoga with the patients with multiple deficits, children who have severe damage. There is a type of Yoga which works the postural alignment that also helps with the breathing and some techniques that are taught to the mothers so they can work them at home...I learned Yoga, and I realized that I was focusing only in the physical part, because I was treating patients with physical disabilities...then, I began to focus in other areas, how the body and the emotions are related, how the body is related with the mental flexibility, I began to see
through the Yoga the mood and emotional changes in the patients, the eating habits and impressive energetic changes, and somehow helping the child to feel more adapted to the occupational therapy sessions. In fact, recently I took a Yoga course for wheelchair users, it was given by a person with Spinal Cord injury, it was wonderful” (Pamela)

5.2.2.3 The power of informal professional networks

Informal professional networks were widely utilized by participants. Nine participants reported that professional networks were an essential support for practice. Networks had provided them with help when participants had clinical questions or struggled with difficult caseloads. Professional networks were used with the aim of solving doubts and uncertainties, asking for advice about practice, and sharing information about resources and professional training available. The most common means of communicating with colleagues was using social media platforms such as Facebook, WhatsApp and email. The most experienced participant provided the following example:

“Our have this group of colleagues who I met when I took my Sensory Integration course, they have lots of experience. I have constant communication with them. I trust them enough to write to them, to ask questions, we get together. We share information: “you know, I bought such and such materials”, we share that kind of information. Sometimes we send each other information...I’m talking about [name of two occupational therapists] who work in [the main city]... sometimes we share information via email or WhatsApp, we share information through Facebook too.” (Maria)

Six participants described these networks as including not only other occupational therapists, but also other members of the rehabilitation team, from whom they had acquired knowledge and skills. One participant working in remote areas affirmed:
“When I need to learn something about patients with physical disabilities, I ask the physical therapists, because they have better management in this area... As I am the only occupational therapist in this hospital, I am learning from my experience working with nurses or doctors.” (Jacquie)

Mentoring and supervision were not spontaneously reported by any participant as a source for building knowledge. When asked, five participants stated they could not identify any mentor. Two participants, with less than one year of experience, identified former teachers from their university programs as mentors who had guided them and provided professional advice. Two other occupational therapists who worked with children with neurological conditions reported that they had previously had mentors. They described occupational therapists with more years of clinical experience, who were recognised due to their expertise working mainly with children with cerebral palsy:

“I have a colleague called (name of paediatric occupational therapist), who works in the main city and she has more experience working with children with cerebral palsy. She is one step ahead, because she has been systematizing her experience, which allows her to transmit the information to people with less experience working in this area. It has been helping me to feel more secure in what I’m doing.” (Vanessa)

Participants were asked about their access to supervision. Only one participant received supervision in the context of a particular approach, which was related to training delivered by foreign teachers, as illustrated below:

“I took training in Theraplay, dictated by American teachers...Yes, now I have constant supervisions in Theraplay. You present a clinic case to the Supervisor, show the recordings you have of the therapy treatment and he or she analyses the case. They tell you what you are doing right or wrong, and guide you to change or improve the purposes, if it’s necessary. The supervision is made monthly.” (Victoria)
Accessing professional networks and mentoring was described as particularly difficult by two occupational therapists practicing in remote areas. Participants indicated they were each the only occupational therapist working within the institution and the only occupational therapist working in a particular paediatric field in the whole region. The following example illustrates how participants had faced lack of professional support:

“Well, I don’t have any colleague who could help me, here in [name of remote city] I am the only one working in this field. I don’t know anyone else.” (Luisa)

“In my city there are few occupational therapists, and we have a WhatsApp group with all the colleagues who work in this region. So if I have doubts about what to do, I can ask for help and we also share information... I don’t have mentors” (Jacquie)

Overall, professional networks appeared to be a powerful resource for Chilean occupational therapists, which offered them broad support regarding accessing knowledge, information about training opportunities, and guidance within clinical practice. These findings are consistent with the reflections recorded by the principal researcher throughout the research project. These reflections indicated the influential nature of personal linkages when recruiting participants and gathering data in-depth. Participants who had personal connections with the research team were more willing to answer questions, providing responses with a higher level of insight and more detail.

5.2.2.4 Limited access to updated scientific knowledge

Regarding access to scientific knowledge, only two participants reported having regular access to databases and scientific journals. One of these participants had limited access in order to download articles, but was able to ask another person within the institution, who was responsible for downloading articles, to assist. The other participant accessed some journals through a university database, and using a pirating website and a Facebook group that shared scientific articles to their users:
“First of all, I search in Google, because it is easier, and secondly I search in PubMed... I have access to the library of the [two Chilean universities]. I also use [Facebook group], do you know it... Well, in Facebook, if you become part of the group, you have to write the DOI of the paper on the wall of the group, your email, and people send you the paper... But I also use other resources, do you know the Russian webpage? If you log in to the webpage, you write the title of the paper and you can download it. It is a pirate webpage. You can have free access to everything there.” (Pedro)

Four participants suggested that they had access to scientific articles only through professional development activities, when articles were provided by presenters. The remaining four participants reported that they did not have access to scientific information. The majority of the participants mentioned using online resources such as Facebook and blogs for accessing professional knowledge. Most of these online pages disseminated information from English language sources, which Spanish speaking authors then interpreted and shared. The authors of some other webpages were occupational therapists that shared their daily clinical experiences in practice, but also professionals from other disciplines and clients. One participant working in the metropolitan city explained:

“I’m following some authors in Facebook. They are the experts in Mental Health in Hispano-America. [Author’s name] is Argentinian, so he speaks Spanish. He was a disciple of Bowlby from England... I’m following [the Argentinian author] on Facebook. He is always uploading new information related to attachment.” (Victoria)

Five participants were asked whether contemporary frameworks in paediatric practice were familiar to them. For example, the interviewer mentioned frameworks and approaches such as occupation centred practice, client-centred practice, constraint induced movement therapy, CO-OP, and occupational performance coaching. The contemporary frameworks were not known for the five participants interviewed, with the exception of one participant...
that had worked with children with neurological conditions. This participant mentioned that the constraint induced movement therapy was a familiar approach, even though the participant had limited experience using this approach. One participant from a remote area reflected on the access to updated knowledge for practice, and provided a clear example about how remote regions are isolated:

“I recently attended to a lecture organised by the University in my region. Some colleagues delivered presentations about contemporary practice in occupational therapy. There, one colleague spoke about Floortime. I had never heard about it before! And I thought, but it’s what I am doing!” (Jacquie)

This participant was asked about the reason why Bobath therapy and sensory integration were chosen as approaches, rather than other approaches, the participant stated:

“Well, I think is mainly due to my ignorance. I am not updated with new theoretical frameworks, or new theories. I undertook the neurodevelopmental therapy training, but I wasn’t able to take sensory integration training. The situation is that we don’t know what is happening now. We are not searching, and we do not investigate if there are new things.” (Jacquie)

5.2.2.5 Barriers faced by occupational therapists in Chile to accessing professional information: constructing the body of knowledge based on what is available

Even though participants described having undertaken formal education and CPD activities, many of them mentioned that they had faced barriers in accessing knowledge. This section describes the most commonly mentioned obstacles identified by participants and explains how due to the lack of access to reliable information, participants used all the sources that were available to them.

All the participants mentioned that most of the available training was organised in the capital city, Santiago, and some training was offered in other countries within the Latin
American region, such as Argentina. Occupational therapists who worked in remote areas expressed particular difficulty accessing CPD:

“If it is something I can see in Internet, I would say yes, I can have access to knowledge. Can you believe, all the training activities are being delivered in Santiago, and I have to travel 24 hours by bus to get there. I could also travel by plane, but it is much more expensive, and there are other circumstances involved too - I have a family, I would have to ask permission in my job, there is thousands of stuff and it’s pretty difficult to coordinate. I am trying to learn from younger colleagues, because they have fresh knowledge from the University. It seems I stayed in the past.” (Jacquie)

Six participants mentioned having direct training in administering a formal assessment tool. As accessing formal training is limited, many of these participants had been trained by colleagues, or had downloaded assessment forms from the internet and taught themselves to administer the assessment, some of them without the assessment manual. Some participants reported using a summarised version of original assessments from English speaking countries, but they were not sure of the authorship of these versions. For example, one participant with less than one year of experience stated:

“Parents complete the summarized sensory profile document. It’s not the long one with hundreds of questions … actually I don’t know, but I believe this summarized version is validated … I’m not so sure if it was validated by Chilean people. This is the one I received at this school, and [teachers] told me this is the one you need to apply. I don’t know if the previous OT was the one who adapted this assessment tool to be used here, I don’t know. But when I began to work here, I was curious to find out where this assessment came from. I got on the internet and it was the same one!! I didn’t read if it was validated somewhere else, or in Chile… there are few assessments validated in Chile.” (Sara)

A second participant explained her experience:
Interviewer: You also mentioned the role checklist. Is it from the Model of Human Occupation?

P10: Yes, it is from the Model of Human Occupation, but it is not the complete assessment. It is a summarized one for children.

Interviewer: So, is it a modified version of the original assessment? Do you know who modified it?

P10: Yes, I think it is an adapted version. I don’t know who modified it. Look, I learned all the assessments at the University, but I don’t remember very well if they were adapted or not, nor who made them.” (Luisa)

Responses from one participant that worked within the private community practice suggested that occupational therapists in this private practice had access to a wider range of assessments. This participant mentioned she had undertaken training abroad, and the assessment tools that they used, had been brought to Chile from English speaking countries. Other two participants had also reported the importation of assessment tools:

“[Name of a Chilean occupational therapist] brought the assessment called sensory processing measure from USA, and I learnt with her how to apply it” (Teresa)

“I apply The Newborn observation... It is a checklist, so I didn’t take training, because it is only a checklist to observe the baby’s responses. [Name of a Chilean occupational therapist] went to the USA and brought the assessment to Chile” (Pedro)

Participants reported that the majority of training was delivered by foreign teachers, mainly from the United States, but also from Argentina and Brazil. Responses suggest that Latin American occupational therapists, who had been working abroad, regularly had travelled to Chile and offered training, or that some private organizations that had personal communication with foreign professionals invited them to deliver training:
“Well, [name of Chilean occupational therapist working in an English speaking country] is the person who has guided the training in sensory integration for all the Chilean OTs. They are the ones who give us the information” (María)

Lack of support from the workplace to attend professional training was mentioned by participants working in public services, but less so by those who were working in private centres. Even though most of the participants were authorised by their superior to undertake CPD, most mentioned that the training was expensive and their workplace had provided little or no financial support for them to attend:

“As I work in the Public Service we have the option to take these courses on –line for free, but all the others have been paid by me ...I wish they [institution] would pay post graduate studies, which would be ideal.” (Victoria)

Despite the fact that most participants suggested that their work did not undergone any quality evaluation, three participants also explained that occupational therapy work was always supervised and assessed by professionals from other disciplines, such as teachers or administrative officers. Depending on the assessment of the therapists’ work, they were allowed to undertake training as a reward for doing a good job:

“Well, we have bosses, one is the Physiatrist and the other one is a [superior within a public institution], but she doesn’t have the knowledge in the Health Area... well, she is the one who decides if we get the authorization [for undertaking training] or not. She gets the feedback from the parents, her job is to supervise the performance of our work, not as much in the medical area, but through the perception of the parents” (Pamela.)

In some public services, occupational therapists were supported to take online training. However, there might not be training available that was relevant to occupational therapists, with all CPD offerings directed toward nurses and doctors:
“Here at the hospital, we can access online courses. There is one webpage we can use. However most of the training courses are for nurses, or about management, but there is nothing for occupational therapists.” (Jacquie)

Some participants mentioned lack of available training and postgraduate studies in Chile as a primary reason for why some occupational therapists planned to travel abroad or choose to take online training:

“I have thought to study a higher degree for teaching at the university, or taking the sensory integration courses, but there are no more options. For studying anything, I have to go to another country.” [Teresa]

Responses from participants suggested that the type of training that occupational therapists considered relevant to their work was different from the contemporary training that is being delivered in countries that led the occupational therapy development worldwide. For example, some participants mentioned their interest to undertake training in approaches such as Vojta therapy, alternative therapies and approaches that belong to other fields, as it is illustrated by one of the less experienced participants:

“There is nothing about art therapy, which I like most…laughter therapy, aromatherapy, doing therapy for companies… I would like to do that, but there are no opportunities for taking training in Chile. When I found the Diploma of drama therapy, I took it immediately, but, if I want to keep studying, I have to go to Argentina”. (Teresa)

Eight participants reported barriers to accessing scientific information, such as lack of access to databases in their work environments, lack of research training, and limited literature published in languages other than in English. One participant talked about the difficulties that some Chilean occupational therapists had faced when they need to read papers, which are mainly published in English language:
“Well, a colleague who undertook a Master’s, and she spent four or five years finishing it, because she had to read so much literature in English. It has also been very difficult for me. I have even cried many times, it has been hard for me, that’s why I work on it at night. I have to study, translate, and I have to translate paragraphs using Google translator. We didn’t learn how to search, read, or make critical reviews of the articles. The teachers from undergraduate program taught us how to search in Google, they didn’t require much more from us.”
(Pedro).

Review of findings

Findings that arose from this research were presented in Chapter Five and organized into two main categories: the first category described features of, and contextual factors influencing professional practice in Chile, and aimed to frame the rest of the findings. Information related to the referral process, expectations of the occupational therapy role, and characteristics of assessment and interventions were described. The second category presented themes that strongly emerged across the codes and pertained to the influences on decision making and strategies used by Chilean occupational therapists to build their body of knowledge.

Overall, two main findings have emerged from this research project: firstly, decision making was influenced by the therapists’ clinical expertise and the information gathered about the client, with research knowledge not identified as a core source of information by Chilean occupational therapists; secondly, in order to build their body of knowledge, Chilean therapists drew on all the information that was available to them, which had not always undergone quality evaluation.

The principal researcher, who is a Chilean occupational therapist, reflected on these findings as a whole. The findings confirmed her initial reflections (detailed in My Stance) that despite sustained effort to provide quality practice and improve their knowledge, clinical decision-making and evidence-based practice of occupational
therapists in Chile continues to be limited by the information available to them. However, the lack of resources available to therapists in remote areas was more severe than expected and the large difference in resources between public and private therapists was unanticipated. This prompted further reflection that these limited approaches to practice meant that occupational therapy was not achieving what it potentially could for the health status of children in Chile. It was clear to her that more work needed to be done to develop a practice culture based on evidence.
6. Discussion

This Chapter begins by discussing the type of information used to support clinical reasoning and decision-making within occupational therapy practice in Chile, and how practitioners build knowledge. The following two questions guided the research:

- What sources of information are available to and used by paediatric occupational therapists in Chile to make professional decisions?

- How do Chilean occupational therapists in paediatric settings build their body of knowledge?

As outlined in the literature review, clinical practice is complex, and occupational therapists are required to integrate information from a range of sources in order to make decisions about professional actions, for instance, assessment and intervention (Colquhoun et al., 2010). Facilitating the quality of practice is an enduring pursuit. One way that facilitating quality has been approached is through EBP, a movement to encourage practitioners to use research evidence in their practice (Sackett et al., 1996). While EBP has continued to emphasize research evidence, there has been increasing recognition that practitioners draw upon a range of sources for their knowledge. Researchers from a number of different disciplines have proposed that, in EBP, four main sources of information are used. These are: research evidence; clinical expertise; patients’ experiences, values and circumstances; and information from the practice context (Hoffmann et al., 2013; Rycroft-Malone et al., 2004).

In this chapter, the findings of this study are examined in relation to these four sources of information and discussed with reference to cultural influences in the Chilean context and implications for further practice development in Chile. Chapter Six finishes by providing
concluding remarks to this dissertation. Limitations of the study, recommendations for further research and final conclusions are offered.

6.1 Sources of information used by occupational therapists in Chile for decision-making: looking through the lens of evidence-based practice.

EBP has gained an important role in the arena of contemporary health care (Stergiou-kita, 2010) and occupational therapy as a profession has adhered to its principles. Ilott and her colleagues (2006) challenged occupational therapists to adopt EBP as a global approach, providing recommendations to develop a ten-year strategy to achieve this goal. Five years later, Bannigan (2011) reflected on the worldwide occupational therapy community's response to this challenge. She concluded that, even though the status of EBP has progressed since 2006, “evidence-based occupational therapy is not yet a global phenomenon” (p.6). This conviction has been mirrored by the lack of published literature relating to EBP in developing countries (Buchanan, 2011). This study aimed to explore and reveal which sources of information were available to and used by paediatric occupational therapists to make clinical decisions, in a developing country, Chile.

6.2.1 Evidence from research

Evidence from research has been a core component of EBP since the concept was first developed by Sackett and his colleagues (1996). It’s role in improving the quality of practice of health professionals, increasing the effectiveness of services provided and, therefore, enhancing the client’s outcomes, is a common understanding between scholars globally (Hoffman et al., 2013; Thomas & Law, 2013; Upton et al., 2014; Rycroft-Malone et al; 2004; Taylor, 2007).

The literature suggests that research knowledge is not regularly incorporated into occupational therapy practice (Cameron et al., 2005; Hu et al., 2012), which is consistent
with findings from the current study. Even though participants’ responses revealed that they were actively seeking professional information, the use of research evidence for making decisions in daily practice was not spontaneously reported by any participant. Besides the barriers to adopting EBP that have been widely described in the literature, such as time and resources constraints (Bennett & Bennett, 2000), developing countries and, in particular, non-English-speaking countries, face additional obstacles such as the language in which research is published, together with lack of locally generated research (Buchanan, 2011). In the current study, only two participants described having access to scientific knowledge, which included the use of resources such as pirate websites and Facebook groups.

It is paradoxical that, while the research evidence “has grown exponentially” in the field of occupational therapy (Bennett et al., 2011, p.11), practitioners from developing countries claim that sources of research evidence are insufficient (Aravena, 2015; Buchanan, 2011). In this study, the use of English as the dominant language in scientific articles within the field was critical and detrimental for occupational therapists in Chile. A rare example of an article exploring the status of EBP in Latin America was written by a Colombian research team. Ramirez-Velez and his colleagues (2015) conducted a study with Colombian physiotherapists, revealing that 33.1% of the sample (1,064 practitioners) declared having difficulties understanding the “English in which articles are written”. This study used a survey developed in the USA which was validated by the researchers in Colombia before the tool was used. It is not clear whether the variable measured relates to the English-academic writing style or difficulties that participants face due to their lack of proficiency in reading the English language. In the current study, Chilean occupational therapists explained that they encountered a lack of relevant literature published in Spanish, and that language formed a major barrier to accessing scientific literature, as they were not fluent in English.

Rising awareness of the real impact of language barriers has become relevant for the professional community, given that, in occupational therapy globally, “English continues to be the language of sciences” (Bannigan, 2011, p.5). Discussion of evidence-based occupational therapy has taken place in the main occupational therapy journals. For example, Ilott and her colleagues (2006) presented her challenge to the profession through an article published in English in the British Journal of Occupational Therapy. Three articles replying to this call were later published in the same journal (Mailoo, 2006; McCluskey et al., 2006;
Whitcombe & Westcott, 2006), all in English, and a fourth article analyzing the progress made by the profession globally was published by Bannigan (2011) in the WFOT Bulletin. The articles, all of them published by researchers from developed countries, discussed issues regarding cultural sensitivity, the need for translating information and sharing knowledge, and the need to create global collaborations (Bannigan, 2011). Unfortunately, in striving to create solutions for the developing world with the aim of addressing the global challenge, there were no occupational therapists from developing countries speaking other languages than English involved. From the insider’s perspective as an occupational therapist from a developing country, it appears that the possibility of making progress globally is limited if non-English speaking practitioners are not able to listen to or participate in these kinds of discussions, and is even more limited if EBP it is not part of the current professional agenda in non-English speaking developing countries.

Upton and Upton (2006) studied the knowledge and status of EBP ten years ago, with 1,000 health professionals in England included as survey respondents. The survey comprised questions to investigate the participants’ “awareness of information types” (p.33). Results showed that occupational therapists’ awareness of the available sources of information was lower than the majority of other health professionals. Similar findings emerged from participants’ responses in the current study, where paediatric occupational therapists in Chile were not aware of the scientific resources available. For example, only two participants mentioned the Chilean Journal of Occupational Therapy, and there were no participants who identified the Spanish version of the WFOT Bulletin as an available resource.

The complexity of incorporating research knowledge into practice requires occupational therapists to develop specific skills (Metzler & Metz, 2010). Responses from participants in this study suggested that their abilities to locate and use research evidence were limited. A systematic review was conducted by Thomas and Law (2013) in which 69 articles studying research utilization and EBP in the field of occupational therapy were examined. Most articles were produced by researchers from developed countries. The authors described personal and organizational factors that support the use of research evidence in clinical practice. Factors such as occupational therapists’ skills to find, appraise and integrate research evidence into clinical practice were discussed. In the current study, only recently graduated therapists of the university had received training in finding research articles,
however, they had never used databases due to lack of access to them. These therapists explained that, as students, they had been asked to use and reference three research articles, but only in the context of their final exams. Another participant stated that, at the University, students were trained in the use of google to identify professional information. Overall, participant responses suggested that the curricula of occupational therapy programs in Chile did not appear to integrate concepts of EBP and that the isolated efforts that did occur appeared to have no impact on occupational therapists’ daily work. These findings are consistent with the article written in the Chilean Journal by Aravena (2015), which speculated that EBP principles “could be scantily incorporated in occupational therapy educational programs” (p.190).

Participant responses in this study demonstrated that they had been actively pursuing sources of professional knowledge to inform their clinical practice, however, the information they obtained might not have undergone quality evaluation. In the absence of peer reviewed knowledge, occupational therapists relied on other sources of information that were available. A number of participants stated they only accessed scientific articles that were provided by presenters of CPD activities, a fact that could introduce potential bias, as the information they had received was pre-selected. Other strategies widely used to overcome the lack of information were using their professional networks to share experiences with colleagues and sharing information through WhatsApp and Facebook. One participant explained that, despite being enrolled in a Master’s degree, he needed to use pirate websites and Facebook groups to seek access to journal articles not available through the university. The research team in the current study explored the Facebook group mentioned by the participant. The group has 52,728 members who are Spanish- speakers from different fields. This denotes that the lack of access to sound information appears to be a common situation for people in developing countries, and they are compelled to go to great lengths to obtain information.

The use of social media as a strategy to access knowledge has gained attention in occupational therapy worldwide. For example, Yan and colleagues (2012) described how the use of an online forum to discuss scientific literature and contemporary frameworks had a positive impact on growing knowledge for the first generations of graduated occupational therapists in China. In Canada, scholars suggested that Facebook was widely used by students of health professions, including occupational therapy, and one of the purposes of using this
social media was accessing updated professional information. However, the authors identified key challenges for educators of health professional students, in terms of providing support and guidance for students to behave in a professional manner (White et al., 2013). In the current study, Chilean occupational therapists declared that they followed Spanish speaking authors on Facebook, who had translated, interpreted and shared information from original resources published in English. Participants also accessed Blogs where occupational therapists, professionals from other disciplines (for example Psychology or Physiotherapy) and clients reported personal experiences. These postings also included content related to theories, approaches and assessment tools. The information that participants obtained through websites and social media served to guide them in clinical practice. It may be relevant for the profession in Chile to evaluate how these sources of information impact on the quality of practice. It may also be important to develop strategies to ensure the accuracy of translated material and the quality of information available through the online platforms that are widely utilized by Chilean occupational therapists.

To summarize, it has been globally recognized that occupational therapists face barriers when accessing research knowledge and they do not systematically integrate this knowledge into practice (Upton et al., 2014). It can be argued that the situation may be similar for occupational therapists in developing countries, but the challenge to adopt EBP may require a different approach, given the need for cultural appropriateness (Whitcombe & Westcott, 2006). Undoubtedly, practitioners in developing countries must use research translation strategies that incorporate cultural considerations. However, the critical point of discussion in this study is that participants have more restricted access to scientific literature than practitioners in developed countries, facing an additional barrier represented by the language. Furthermore, findings in this study suggest that the lack of research culture, scarcity of research training and limited creation of local scientific knowledge, may represent a risk to paediatric occupational therapists in Chile, as they are often reliant on information that has not undergone quality evaluation.
Clinical expertise is a pivotal component of EBP. Sackett and colleagues (1996) defined clinical expertise as “the proficiency and judgment” (p. 71) that clinicians develop through their clinical experience and practice. In the field of occupational therapy, clinical expertise has been identified as one of the main sources of information used to inform clinical practice (Bennet et al., 2003; Copley & Allen, 2009). Consistent with these research findings, Chilean therapists in this study considered their professional knowledge and experience as key sources of information for decision making. They suggested that, from practice, they had learnt how to prioritize goals, to identify the most effective approaches for specific diagnoses, and to anticipate the child’s response to the treatment.

Across the data, the use of intuition and reliance on personal opinion to make clinical decisions strongly emerged, being reported by all the participants regardless of the length of their professional experience. For example, one participant with five months of experience stated that she assessed the different areas of occupational performance using only observation of her clients. Based on her observations and her professional experience, she wrote reports detailing diagnosis and recommendations for further interventions, as well as selection of an appropriate school system for the child. Another participant with twelve years of experience, who was working in remote areas, reported using her observations and personal experience as her only strategy to assess and treat clients. Chaffey and colleagues (2012) have suggested that intuition is “embedded in [occupational] therapists’ clinical reasoning and informed by tacit knowledge” (p. 88). The authors have also suggested that intuition comprises an emotional component that influences decision-making, which needs to be recognised and understood when considering intuition. In addition, they stated that occupational therapists with more professional experience are more confident when relying on intuition, which is consistent with the expertise continuum in which intuition is used increasingly as expertise is gained (Schell, 2014). The findings of the current study highlight the need, particularly for novice occupational therapists in Chile, to enhance the quality of professional practice through soundly informing intuitive components of clinical reasoning.

The majority of participants declared that intervention outcomes were measured exclusively through observation, and their decisions were based on their professional
experience. Robertson and his colleagues (2015) argued that, even though clinical practice involves cognitive processes that are “intuitive and subconscious” (p.70), the current status of professional practice requires critical occupational therapists. The authors described a practitioner who was “evidence informed, critically reflective and engages reflexively in professional occupations” (p.68), and was able to generate a rationale for decisions that were primarily intuitive. It may be beneficial for new generations of practitioners in Chile to be trained as critical occupational therapists able to identify, use and articulate sound knowledge to support their practice. Such training is likely to enhance the status of the profession within the country and improve standards of service.

Looking at the original definitions of EBP, Sackett and colleagues (1996) depicted the relevance of using clinical expertise that is informed by the best current evidence in order to avoid jeopardizing clinical practice based on knowledge that is obsolete, which can be potentially harmful for clients. In addition, Dawes and colleagues (2005) argued that the lack of awareness regarding existing research evidence, disregard valuable opportunities to enhance clients’ outcomes. In the current study participants discussed the use of some practices that are old fashioned or alternative. For example, one participant explained that to overcome the problem of having families with mental health issues that were poorly engaged with their child’s intervention, occupational therapists referred families for receiving Bach flower therapy. The rapidly increasing number of graduating occupational therapists requires thorough knowledge supporting their practice, and sufficient professional skills to handle the needs of the Chilean context.

The adoption of EBP in Chile, and the development of a clinical reasoning framework based on evidence, becomes a priority in the context of being a developing country with an increasing health workforce. A clinical reasoning framework for paediatrics based on evidence might include contemporary models and theories such as occupation centred practice (Rodger, 2010), CO-OP (Polatajko & Mandich, 2004), or Occupational Performance Coaching (Graham et al., 2009) among others. The routine use of contemporary occupational therapy frameworks, which may develop new ways of thinking, may allow Chilean therapists to work more systematically and comprehensively when conducting interventions with paediatric clients in Chile.
The literature suggests that the progress of clinical expertise demands that practitioners engage in CPD (Townsend et al., 2006). This includes formal education, professional training activities (Alsop, 2013), and the presence of local experts from which to draw (Schell & Schell, 2008). In this study, participant responses suggested that the available CPD covered a limited range of topics and approaches. Training activities were mostly organized by private providers and delivered by presenters from developed countries – mainly from The United States who speak Spanish. Across the data, it became evident that the training undertaken by participants strongly influenced all aspects of their practice. For example, training in sensory integration appeared to be the most regularly available option for paediatric occupational therapists in Chile. Nine participants declared using assessment tools related to sensory integration, and all of the participants used sensory integration as an approach to treat children with a wide range of diagnoses. Training in Bobath therapy and the MOHO were also available to participants and, consistently, were the most used approaches in practice, after sensory integration.

It is concerning that the range of topics that are currently taught in Chile is limited to a small number of approaches that are widely applied to all clients, and that they are not always in line with the trends of contemporary occupational therapy practice globally. For instance, occupation-centred practice is a widely recognized approach, which has a growing body of evidence demonstrating its effectiveness (Rodger, 2010). Nevertheless, it was not familiar to participants when asked about contemporary practice. The limited access that Chilean therapists have to the global debates within the profession affects the quality of the service provided to Chilean clients. For example, all participants working with children with cerebral palsy described using sensory integration and Bobath therapy/Neurodevelopmental theory (NDT) as the main approaches to treat their clients. An article published in Chile corroborated this assertion, arguing that NDT is the most common approach used with children with cerebral palsy in Chile (Navarrete, 2013). Novak and colleagues (2013) conducted a systematic review of interventions for children with cerebral palsy. The authors suggested that “NDT and sensory integration have been shown to be ineffective in children with cerebral palsy, and are therefore not recommended for standard care” (p.900). These findings highlight the need for Chilean occupational therapists to develop strategies that help them to access updated scientific knowledge, in order to deliver high quality service to their clients.
clients. In the current study, five participants were asked about their understanding regarding current approaches such as the Cognitive Orientation to Daily Occupational Performance, bimanual training, goal-directed training, client-centred practice, or occupation-centred practice, all of which are accepted approaches in contemporary paediatric occupational therapy (Rodger, 2010). These approaches were not familiar to the participants. It might be helpful for Chilean practitioners to access education from a broader range of countries and connect with experts that provide leadership in occupational therapy globally.

The literature suggests that clinical expertise is also nourished by professional networks. Access to clinical meetings, systematic peer supervision and mentoring by an expert practitioner can contribute to enhancing the standards of practice (Copley et al., 2010; Hoffmann et al., 2013). In this study, most therapists had opportunities to participate in clinical meetings, specifically meetings with multidisciplinary teams. They reported that they acquired skills and knowledge from professionals that belonged to other disciplines, which constituted the main support for those participants working in remote areas. Strategies such as mentoring and supervision appeared to be limited for occupational therapists in Chile, as these strategies did not appear to be part of the professional culture, nor an organizational concern. Mentoring and supervision were not spontaneously reported by any participant as part of the support they had regularly accessed. When asked, only four participants could identify mentors within the profession, and one participant working in a remote area identified one physiotherapist as her mentor. To the authors’ knowledge, supervision is an unfamiliar practice for occupational therapists in Chile, as it has not been established as a process used by health services within the country. Only one participant reported that she had received supervision from American trainers, in the context of learning a specific approach.

Lapointe and her colleagues (2013) suggested that leadership and mentoring are essential to “successfully advance the profession of occupational therapy and improve access to our services” (p.38). As organizational concerns, these strategies appear to be part of the professional culture in developed countries, however, they are not extended practices in developing countries. In the current study, the lack of mentors and formal supervision were evident, and some participants emphasized the fact their work did not undertake any quality evaluation, or it was supervised by professionals from other fields. Even though occupational
therapy in Chile has a professional code of ethics, it may be insufficient to assure the quality of practice and effectively protect its users.

6.2.3 The patient’s experiences, values and circumstances

As outlined in the literature review, the patient’s perspective was the third element incorporated into the original definition of EBP proposed by Sackett and colleagues (2000), and it has also been a key component of the EBP framework in the field of occupational therapy (Bennett & Bennett, 2000). Even outside the scope of these frameworks, the clients’ central role in service provision has long been a fundamental concept within the delivery of health services (Lepegle et al., 2007). The recognition of its importance in enhancing the quality of practice has led health professionals to develop the client-centeredness movement (Gupta & Taff, 2015). Mroz and colleagues (2015) argued that elements of client centeredness have been part of occupational therapy’s philosophy since the origins of the profession. The authors described that since 1983, the concept has been formally recognized by the Canadian Association of Occupational Therapy and has gained increasing prominence within the field. Mroz and colleagues reviewed key concepts such as respect for the client’s values, beliefs and contexts, collaboration and shared decision-making, information sharing, inclusion of family, and the “balance of power weighted towards the client” (p.2).

In the current study, participant responses denoted that, although they strived to consider the client’s perspectives, and participants gathered information related to the family’s perception of the child’s problems, their actions appeared to be shaped by their intuition, rather than being guided by client-centred practice. For example, six participants referred to asking parents about their expectations of therapy, however, only one participant, who worked in private community practice, allowed parents to prioritize intervention goals. The priorities were established in terms of the family’s economic situation and capability to afford a certain number of therapy sessions. Responses in this study indicated that decisions regarding assessment and intervention were made by doctors who referred children, or by the occupational therapists, but shared decision-making did not seem to be part of the Chilean professional culture. Additionally, most participants suggested that parents were not allowed
to actively participate within therapy sessions, and they were expected to wait outside the occupational therapy room when children were receiving treatment.

A reflective analysis of the participants’ responses regarding the role of families again makes evident the need for occupational therapists in Chile to have access to current global professional knowledge. For instance, contemporary research in occupational therapy discusses that interventions focused on parent-child interaction can be more effective than child-focused interventions for specific diagnoses (Barfoot et al., 2015). Participants’ responses in this study demonstrated systematic efforts towards acquiring knowledge and improving practice, nevertheless, their restricted access to information is limiting the possibility of aligning their practice with the progress made by the profession worldwide. One participant with 30 years of professional experience reported that Positive Parenting “opened her eyes” in relation to focusing the treatment on the child’s abilities rather than on deficits, and to the crucial role of the parent-child relationship. This reveals that some content that is part of the basic professional knowledge for practitioners in developed countries can be an incidental learning for therapists in developing countries.

Discussions around the global adoption of EBP in the field of occupational therapy have considered cultural appropriateness in relation to developing countries (Bannigan, 2011). This concept recognizes the fact that culture and ethnicity substantially impact on people’s understanding of health and sickness, their needs, their ideas and their expectations of health services and practitioners (Taylor et al., 2008). Even though Chile declares allegiance to the principles emanating from the International Classification of Functioning, Disability and Health (ICF), where patients are valued as biopsychosocial individuals, the prevailing medical model in health care continues to see the client as an “object”- the subject of intervention (Chana, 2012). In this study, participants’ comments suggest that the structure of rehabilitation and health services in Chile is hierarchical and clients and families are rarely involved in decision-making. It may be important for occupational therapy in Chile to discuss the client’s role and analyze the coherence of its actual practices with philosophical principles within the profession.
6.2.4 Information from the practice context

The information that practitioners can gather from the practice context has been included in the EBP framework for occupational therapists (Bennet & Bennett, 2000) and it may be particularly relevant for the profession, given its comprehensive way of understanding clients. A number of studies have been conducted in the field of occupational therapy in which researchers have described contextual factors that facilitate or act as an obstacle to the adoption of EBP (Bennett et al., 2016; Thomas & Law, 2013; Upton et al., 2014). In the current study, several factors of the Chilean context, such as a lack of research culture, scarcity of postgraduate degree options, lack of connection with the global scientific community and reduced access to research knowledge appear to be barriers to EBP. However, a more fundamental issue is that EBP is not, as yet, an essential feature of professional discussion in Chile.

In addition to the literature that has highlighted context-dependent variables that influence EBP, research has also suggested that contextual factors affect occupational therapists’ clinical reasoning and decision-making (Copley et al., 2008; Shafaroodi et al., 2014). In the current study, responses indicated that the availability of time and institutional policies influenced clinical practice. Furthermore, Chilean culture shaped occupational therapy practice skills and service delivery. For example, backscratching is a deeply rooted social practice in Chile, which is characterized by reciprocal exchange of favours, assistance and services (Bazoret, 2006). In the current study, participants inferred that some clients evaded long waiting lists in public services by asking therapists to receive attention as a personal favour. They also discussed that they used their personal and professional networks to get information about CPD and share knowledge. Moreover, the principal researcher’s reflections mirrored this social practice in Chile, as personal connections played a key role regarding recruiting participants and gathering more in-depth information.

It is also interesting to consider to what extent Chilean occupational therapists consciously reflect on information from the practice context to make clinical decisions. For example, a number of participants have claimed that the occupational therapy service lacked appropriate physical resources and equipment, particularly those required for applying sensory integration. Despite this, all the participants used sensory integration as an approach
to treat clients. This denotes that, although therapists do not have basic conditions for using particular approaches, this factor was not taken into account when selecting the approach.

Furthermore, the global progress of the occupational therapy profession has encompassed the development of components of practice that are well recognized in developed countries, such as reflective practice (Bannigan & Moores, 2009). Nevertheless, components such as these might not be part of the agenda in developing countries, as reflective practice was not familiar to any participant in the current study. The lack of access to current knowledge and theories in Chile that provide a framework for critical thinking could have had a detrimental impact on the occupational therapists’ quality of practice. In the absence of formal procedures and sound knowledge, clinical decisions are made based on intuition and supported by the available information.

In the current research, several strategies were used by the researcher in order to inform reflections regarding clinical practice in paediatric settings in Chile. Informal interviews were conducted with paediatric occupational therapists in Australia, and a process of immersion within the academic environment at the University of Queensland, through working as teaching and research assistant, was experienced by the researcher. Contrasting with the insider’s perspective that I have as Chilean occupational therapist, there is one aspect from the professional landscape in Australia that powerfully emerged: professional associations and regulatory bodies in developed countries play a crucial role in the adoption of EBP. It appears that there is an infrastructure that oversees the quality of practice, using mechanisms such as professional registration and supervision to advocate for high quality practice based on evidence. The relevance of this infrastructure in the promotion of EBP has not been adequately discussed in the literature. This may be because it is part of the professional culture in developed countries, and its influence is therefore a tacit understanding between scholars. It may be important for developing countries to explore how the creation of these kinds of procedures, and the support needed to empower the professional association, could be important to consider when adopting EBP. Beyond the practice context of individual organisations, the wider professional landscape that surrounds occupational therapists forms a highly influential part of the practice context (Rycroft-Malone et al., 2004).
6.3 Limitations:

The scope of this study was to begin the process of exploring the sources of information used by Chilean occupational therapists working in paediatric settings. Even though a variety of demographic profiles were purposefully included, findings from this study may not represent the practice of Chilean occupational therapists across the country. Therefore, caution should be exercised in generalizing the findings. The current study originally considered collecting data through conducting in-depth interviews and observations of participants performing therapy sessions within paediatric settings. However, participants declined to be observed, arguing personal reasons and institutional constraints. Difficulties observing practice constituted a limitation to this study, as observations would have provided another source of data to triangulate findings. For the majority of participants, this study represented their first involvement in research, which may have influenced their responses. In addition to the lack of research culture, in Chile there are no formal procedures such as supervision to oversee clinical practice. Participants were therefore not familiar with being observed when working with clients. Accordingly, the request for observation may have limited recruitment. It is hoped that exposure of participants to the research process in this study may contribute to gradually building the research culture in Chile, increasing the future possibility of collecting data using a variety of strategies.

Translation of data from Spanish into English may represent a risk to this study in terms of affecting the accuracy of translated content. In order to minimize this possibility, recordings of interviews were carefully transcribed and translated into English by the researcher. Translations were checked by a professional translator. As a Chilean occupational therapist, the researcher’s lack of knowledge regarding Australian professional slang and professional language may have affected the truthfulness of translations. To compensate for this possibility, summaries of the interviews were prepared, and professional jargon was discussed with the Australian members of the research team. Conducting an Australian study into the clinical practices of Chilean occupational therapists has the potential to insufficiently appreciate the influence of culture. To minimize this possibility, the lead researcher reflected on her own knowledge of Chilean culture, and engaged in a process of immersion within the Australian professional culture to inform reflections. This process helped the researcher to
identify which aspects of practice were connected with culture and which may be influenced by other reasons.

6.4 Recommendations for further research

The findings of the current study highlight the relevance of developing a multidimensional approach that should involve education, practice and research in Chile. Chilean occupational therapists may benefit from developing a clinical reasoning framework based on evidence to guide their decision-making, in order to improve quality of practice and client outcomes. This is particularly relevant at this time, due to the increasing number of educational programs offering occupational therapy training in Chile. To influence the practices of the next generation of practitioners, occupational therapists in Chile working in academia need to develop strategies to introduce the EBP framework within the curricula and use pedagogical approaches to promote the development of a clinical reasoning framework based on evidence. Future research could focus on the current practices of occupational therapy educators in Chile and determine their needs for professional development in relation to their academic roles. Further research is also needed in other professions of the rehabilitation team, in order to strengthen the inter-professional development supported by a well-established EBP framework, fostering the status of rehabilitation services in Chile.

In education, the fact that only 5 out of 42 educational programs in Chile are approved by the WFOT is undoubtedly an issue that needs to be a professional concern. The lack of regulatory bodies within the Chilean professional and educational system is currently allowing an exponential growth in programs that may not align with the core concepts and philosophy of occupational therapy worldwide. The Chilean professional community needs to promote and encourage the adherence of educational programs to the WFOTs minimum standards for education (WFOT, 2008), with the aim of supporting quality of practice.

The educational strategies could be oriented to allow occupational therapy students to think about themselves to be evidence based practitioners. The programs might include three basic skills: firstly, developing abilities that permit them to be systematic in searching for
quality information and learning how to use databases; secondly, providing students the knowledge needed to appraise the quality of the evidence they have access to; and thirdly, developing competence in integrating the sources of evidence when making clinical decisions through the establishment of a clinical reasoning framework based on evidence. It might be relevant that educational programs can set the EBP framework as a core concept embedded within the curricula, rather than introducing individual subjects that are not articulated with disciplinary knowledge.

Regarding practice, the prominence of the profession in Chile could be enhanced through empowering the professional association to support high quality and updated professional training and knowledge, and promote research culture. Increased influence of the professional association has the potential to greatly improve the standards of practice among Chilean occupational therapists. Research that involves the professional association in trialing and evaluating initiatives that build local knowledge and support a broader repertoire of professional development offerings is therefore recommended.

Regarding research, in addition to facilitating access to current evidence and developing research culture, it may be crucial for Chilean Occupational therapists to promote the development of local infrastructure, in relation to governmental and private institutions, to support research. Participatory action research (PAR) (Reason & Bradbury, 2008) is a research approach to create practical knowledge and develop abilities for building new knowledge. This approach may be useful framework for building a research culture in Chile as it would involve encouraging participants to gain leadership skills to foster professional progress in Chile. A potential research project could include particular Chilean occupational therapists, purposefully sampled in order to identify those who have influential positions within occupational therapy in Chile. The aim would be to work intensively with participants, collaboratively determining and implementing strategies that impact professional practice in Chile. These strategies could include training in research skills, the establishment of a clinical reasoning framework, the promotion of local leadership and linkage of Chilean networks with worldwide knowledge and experts. A project of this nature acknowledges the power of inherent aspects of Chilean culture, such as the extensive use of social networks and backscratching.
Recommendations offered here aim to enhance research capacity, access to and understanding of international literature, and access to current professional development for occupational therapists in Chile. The aim of improving occupational therapy practice in these ways is to promote social justice for Chilean people with special needs. However, this type of research may also be applicable to other developing countries if applied with consideration of their unique cultural practices. In order to do this, the ways in which occupational therapists in other developing countries make decisions in practice should be investigated. It is only by understanding the influence of isolation from the global scientific community, together with the influence of unique cultural factors, that the uptake of practice based on evidence can be fostered in health services throughout the developing world.

6.5 Final comments and implications for developing and developed countries

Scarce access to research knowledge, precarious development of a research culture and lack of connection with the global scientific community can lead occupational therapists to rely on information that has not undergone quality evaluation. In addition, limited creation of local knowledge that could provide theoretical foundations to support practice, and the shortage of postgraduate studies in the field of occupational therapy, can affect the philosophical underpinnings that guide the profession.

Due to the limited access to information about the progress of occupational therapy globally, EBP has not appeared to be a central topic for the professional community in Chile. In order to improve practice standards in their countries, occupational therapists from developing nations who hold influential positions could advocate for change in the sociopolitical landscape. Lobbying could focus on fostering the fundamental access of people with disabilities to basic community services. These influential therapists could also facilitate partnerships between their less influential colleagues and scholars or practitioners from developed countries, with the aim of facilitating access to contemporary practice knowledge. These efforts could support the review and renewal of curricula in occupational therapy training programs.
Researchers worldwide have begun to imagine the steps that could be taken to facilitate the practice of those in developing countries. These include providing open access to journals (Buchanan, 2011) and increasing the translation of journal publications into more languages (Bannigan, 2011). In order to create knowledge that is culturally sensitive, strategic alliances between occupational therapists from developed and developing countries is needed. This will necessitate creative strategies for engaging therapists in developing countries in the dialogue that scholars are beginning to have regarding their needs. Those occupational therapists from developing countries who have had the opportunity to complete higher degrees abroad could be an active agent in this process.
In summary, Chapter One has provided the background to the study, in terms of framing the Chilean context and disclosing the insider’s perspective of the lead researcher. Chapter Two and Three provide the literature review regarding EBP and CR in occupational therapy globally, approaching the context of developing countries, and detailing characteristics of occupational therapy in Chile, which is the focus of this study. Chapter four explains the methodological framework used in this research project. Chapter Five has described the main findings that emerged from the current study, which are discussed in depth in Chapter Six. Based on the information contained in Chapters Two to Six, three articles will be submitted:

PLANNED PUBLICATIONS:


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Farías, L., & López, C. (2013). La formación de pregrado de terapia ocupacional en Chile visto desde la perspectiva de los estudiantes: ¿cuál es la percepción de necesidades que tienen los estudiantes de terapia ocupacional en relación a su proceso de formación? [The training of undergraduate occupational therapy students in Chile seen from the perspective of students: what is the perception of needs that occupational therapy students have in relation to their training process?] *Revista Chilena de Terapia Ocupacional, 13*(1), Pág. 43-50. doi:10.5354/0717-5346.2013.27451


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Appendix 1:
CODING STRATEGY

<table>
<thead>
<tr>
<th>Codes</th>
<th>Sub-codes</th>
<th>Quote</th>
</tr>
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<tbody>
<tr>
<td><strong>REFERRAL</strong></td>
<td>HOW PARENTS ACCESS / ARE REFERRED TO THE ORGANIZATION (includes professionals and institutions who referred the child, parents’ initiative, relationships with external referees, aim of the referral)</td>
<td>“[Private’s centre name] has been opened for 22 years… neurologists and psychiatrists have been referring patients to us. There are children assisted by other professionals in this centre who don’t come to Occupational therapy, then we contact those professionals and coordinate the references with them. Also the moms during the typical conversations with their friends, if they know about us, they recommend us, we visit the schools too…so teachers also refer children to us”. (Maria)</td>
</tr>
<tr>
<td></td>
<td>PROCESS USED WITHIN THE ORGANIZATION WHEN CLIENTS ARE FIRST INVOLVED (includes organizational policies and)</td>
<td>“The first procedure after we receive the patients, is the welcome, which is the assessment done by any of”</td>
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procedures, role of team members involved in referral, team assessment)  

EXPECTED OT ROLE (includes referrer and families’ expectations, the general understanding about OT role within the organization, why children were referred to OT, which children are referred)  

the members of the Infant-Juvenile Team. The first mandatory appointment must be done with the Psychologist. So, in that assessment or in the meeting with the Psychologist, is decided if the patients will be referred to Occupational Therapy”. (Victoria)  

“The neurologist sends to us referral orders stating: “hyper-responsive child, referred to occupational therapy, he/she must receive sensory integration therapy.” (Teresa)  

| OT ASSESSMENTS AND INTERVENTIONS | STRUCTURE OF ASSESSMENTS AND INTERVENTIONS (time available, number of sessions, standard process required by the organization or decided by OTs) | “Well, generally after the child is being assessed, and in relation with what you observed, is the occupational therapist who decides how many sessions he/she needs for working the goals, that are deduced from the assessment. The time [number of sessions] depends on whether the child need to receive intervention from other professional within the centre, or it is only OT intervention. The time |
| ASSESSMENTS PURPOSE, PROCESSES AND TOOLS (includes areas assessed and decision making about assessments. Strategies, tools and procedures used to assess clients) | fluctuates between 30 and 40 minutes, twice a week, generally.” (Vanessa) |
| INTERVENTION GOALS (includes all the areas which OTs are working towards how and why they were established) | “The patients come for a cycle of 3 months treatment, 6 months or a year... Twice a year we have a planning time, we review the list of our patients from each area.” (Pamela) |
| | “In my assessments, they [doctors] expect me to assess how close is the attachment with their first caregivers. Is that, assessment of Sensory Integration” (Vanessa). |
| | “My goals as an OT are to keep and improve fine and gross motor skills, because that area is affected in all the children. Regulate sensory-perceptive skills, with the aim of improving connection with the environment and adaptive responses, which all children need. I work on basic and instrumental ADL that is what I work in for the whole year.” (Teresa) |
INTERVENTION APPROACHES AND TECHNIQUES (includes decision making about approaches. Activities, techniques and approaches used by OTs)

EVALUATION OF OUTCOMES (includes OT criteria for measuring outcomes e.g. clinical observation, use of assessment tools, use of reports from the child’s environment. Includes decision making about discharging clients and what to do next. How OTs decide whether the intervention is working or not)

“We have another program, equine therapy. We give it from the Sensory Integration approach. There are two groups of equine therapy, one is given by the Physiotherapist and the other one by an OT, this last one is approached to treat Sensory Integration disorders”. (Pamela)

“Mmm… I don’t have an indicator of achievement. You see the child arrives content, he or she didn’t refuse to come in, or when the child enters my office he or she tells me “I have brought this idea to work”… So we observe the child’s capacity of processing ideas, the joy, the motivation and the capacity to get organized… to this child I didn’t have to indicate him or her what to do, he or she got organized by himself or herself….if the child is
PARENTS AND CHILD INVOLVEMENT
(Involves parents and child participation, and their role in assessment and intervention, how well service/processes work for families and clients)

“Respectful with others, able to apologize with the other…I mean, in all the spontaneous activities and not the directed ones, the children show me that the treatment is working.” (Maria)

“We are always three professionals who apply assessments, so we take turns. There is one who talks to the parents and gets the history of the child… what is the situation, why was the child referred to us. They come in [therapy room] at the beginning, then we ask them to leave, so we can focus just on the child… while we are assessing the child, they fulfill the sensory profile. That’s their collaboration.” (Sara)

KNOWLEDGE USED IN PRACTICE

FROM UNDERGRADUATE TRAINING

“In paediatrics, I learnt everything in my professional placement…I worked in a rural area with children with disabilities, then I worked with one classmate,
THROUGH PROFESSIONAL DEVELOPMENT
(includes undertaking Masters by coursework, Diplomas, workshops, seminars)

USING CLINICAL EXPERIENCE

and the occupational therapist was correcting us… I feel that I missed learning more at the University about paediatric… I received so much information about psychiatry, but I learnt little about paediatrics. Then I have to learn it now.” (Teresa)

“My learning has been about Sensory Integration, I have taken every course to receive my certification [given by the Chilean Association of Sensory Integration], and now I’m taking those courses for the second time, because we must update our certification every 6 years.” (Maria)

“Because as we are having more experience, just observing the child we know where we must direct the treatment.” (Pamela)
<p>| CONNECTING WITH COLLEAGUES (includes mentoring, peer supervision, clinical meetings and accessing to professional network) | “In my city there are few occupational therapists, and we have a WhatsApp group with all the colleagues who work in this region. So if I have doubts about what to do, I can ask for help and we also share information… I don’t have mentors” (Jacquie) |
| ACCESSING SCIENTIFIC KNOWLEDGE (includes access to research knowledge through scientific publications, journals, books, and other information from blogs, Facebook and social media resources) | “First of all, I search in Google, because it is easier, and secondly I search in PubMed… I have access to the library of the [two Chilean universities]. I also use [Facebook group], do you know it…Well, in Facebook, if you become part of the group, you have to write the DOI of the paper on the wall of the group, your email, and people send you the paper…But I also use other resources, do you know the Russian webpage? If you log in to the webpage, you write the title of the paper and you can download it. It is a pirate webpage. You can have free access to everything there.” (Pedro) |</p>
<table>
<thead>
<tr>
<th>RESOURCES CONTEXT</th>
<th>AND</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>(Includes personal and contextual factors that influence practice e.g. time, physical resources, implementation, organizational policies, personal resources and cultural aspects. Resources OTs would like to use for data gathering)</em></td>
<td>“Sadly we don’t have the best conditions, we don’t have a place to treat the patients. We have a good team… The bad thing is that the [institution] doesn’t do much for us. We have had to organize a training course to earn [money], so we were able to implement a room. However, this room is shared with the respiratory care unit, so when there are appointments with patients with respiratory issues, we cannot use the room. Slowly we have acquired 1 mirror, 2 mats, and we keep the room clean…I bought the toys we have now, but that was a long time ago, they have not given us any more toys.” (Pedro)</td>
</tr>
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<table>
<thead>
<tr>
<th>WHAT WOULD IMPROVE MY PRACTICE</th>
<th>DREAMING ABOUT CONTEXT CONDITIONS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I would like to have a big room, more equipment… I would like to continue working as a team, and parallel, which enrich our work, because apart of been able to watch my colleagues I would be observing other children, many other children.” (Maria)</td>
<td></td>
</tr>
<tr>
<td>DREAMING ABOUT ACCESS TO KNOWLEDGE.</td>
<td>“I would like to speak English, and to read more than I do, because one feels limited to read only in Spanish or the already translated documents, then I miss the updates online. So I would prefer to work less then I could study more… not to work so hard!!! I would like to have more time to think, and think over the practice. We do this in our clinical meetings, but we are always short of time to work in our ideas.” (Maria)</td>
</tr>
<tr>
<td>DREAMING ABOUT OT ROLE.</td>
<td>“I believe the OT career needs to be publicized more, because not many people knows about it, so there are not many chances for updating our knowledge, and the information is hidden within Occupational Therapy:”</td>
</tr>
<tr>
<td>BELIEFS ABOUT GOOD PRACTICE</td>
<td>“I’m interested in having a specialization, because I want to learn more and better techniques and what is best for the children. I don’t trust much the on-line</td>
</tr>
</tbody>
</table>

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courses, I prefer to attend to the actual classes, that’s why I’m going to save money to go for an specialization about Sensory Integration in Argentina”. (Sara)

| OTHERS | Includes any quotes that were not coded in the categories listed above. |  |
Appendix 2

STATEMENT ABOUT ETHICAL CLEARANCE

This project complies with the provisions contained in the National statement on Ethical conduct in Human research and complies with the regulations governing experimentation on humans.

Ethical clearance has been granted by:
The University of Queensland, project number 2015000532, 07/04/2015.
(Paperwork attached, see Appendix 4)
Appendix 3

RESEARCH PROJECT

“Sources of information used by paediatric occupational therapists in Chile to make clinical decisions”

Dear participant: Please complete the information asked below, allowing us to know you professional profile.

DEMOGRAPHIC PROFILE

1. What region do you belong to?

☐ North  ☐ Central Area  ☐ South

2. How many years of experience as Occupational therapist do you have?

☐ Less than 1 year  ☐ 3 to 5 years

☐ 1 to 3 years  ☐ 5 to 10 years

☐ 3 to 5 years  ☐ 10 plus ________ (please specify)
3. How many years of experience working in paediatric settings do you have?

☐ Less than 1 year  ☐ 3 to 5 years

☐ 1 to 3 years  ☐ 5 to 10 years

☐ 3 to 5 years  ☐ 10 plus __________ (please specify)

MAIN JOB

4. What kind of paediatric setting do you work in?

☐ Rehabilitation centre  ☐ Mental Health

☐ School  ☐ Social

☐ Community based practice  ☐ Other _______ (please specify)

5. What kind of Institution do you work in?

☐ Public  ☐ Non-governmental organisation

☐ private  ☐ Other _______ (please specify)
6. What is your current employment status?

☐ Full time (40 hours)  ☐ Part-time (1-20 hours)

☐ Part-time (20-39 hours)  ☐ Other _________(please specify)

SECOND JOB

7. What kind of paediatric setting do you work in?

☐ Rehabilitation centre  ☐ Mental Health

☐ School  ☐ Social

☐ Community based practice  ☐ Other _________(please specify)

8. What kind of Institution do you work in?

☐ Public  ☐ Non-governmental organisation

☐ private  ☐ Other _________(please specify)
9. What is your current employment status?

☐ Full time (40 hours)  ☐ Part-time (1-20 hours)

☐ Part-time (20-39 hours)  ☐ Other ________(please specify)

THIRD JOB

10. What kind of paediatric setting do you work in?

☐ Rehabilitation centre  ☐ Mental Health

☐ School  ☐ Social

☐ Community based practice  ☐ Other__________(please specify)

11. What kind of Institution do you work in?

☐ Public  ☐ Non-governmental organisation

☐ private  ☐ Other__________(please specify)
12. What is your current employment status?

☐ Full time (40 hours)  ☐ Part-time (1-20 hours)

☐ Part-time (20-39 hours)  ☐ Other____________(please specify)

13. What is your professional development status?

☐ Professional title  ☐ Bachelor degree

☐ Master’s degree  ☐ PhD

☐ Other____________________________(please specify)

14. Did you achieve other type of professional training?

__________________________________ level completed _______________________
__________________________________ level completed _______________________
__________________________________ level completed _______________________
15. Do you have the possibility to access to continuous education activities?

☐ Congress  ☐ Seminars

☐ Workshops  ☐ Peer supervision

☐ Mentored by an expert OT  ☐ Mentoring students

☐ Clinical meetings  ☐ Access to scientific evidence

☐ Experience researching  ☐ Publishing articles
INTERVIEW

I. DEMANDING PROVISION OF SERVICE

1. How do you come to see the clients here?
   • Do you need to be referred to OT? Who is referring clients?
   • Can you see / are you receiving spontaneous demand?
   • Can you decide / suggest who you see? Why?

II. ASSESSMENT PROCESS

1. Can you describe what the first steps are when clients come to OT?
   • Tell me about the assessment process:
   • Who is involved?
   • Is the client’s opinion considered?
   • How do you decide what to do?
   • What do you need to do?
   • What are the main aspects or areas that do you need to evaluate?
   • Is anyone guiding in any aspect the assessment process? Who and Why?

2. Tell me about the objective and subjective procedures to assess clients:
   • What are the main methods to assess clients?
   • How do you feel often about this process?
3. Tell me about the assessment’s context:
   - Do you have enough time to assess clients? Why?
   - Do you have enough physical resources to assess clients (e.g. Kit and assessment tools, therapeutic tools, measure’s tools)
   - Do you feel that the context is important to assess clients? Why?

III CLINICAL REASONING AND MAKING DECISIONS

1. Think about the time when the assessment process is finished, what happen? What the next steps are?
   - What happen when you are thinking about the future treatment?
   - What do you think?
   - What are the main points to consider?
   - What factors are influencing your decisions?

2. How the goals for Occupational therapy’s treatment are established?
   - How can you take this decisions?
   - Is the process influenced by external factors? Which? Why?
   - Do you feel that your own experience is an important factor to make clinical decisions? Why?

3. Think about the time when you are making decisions… Do you need to support your decision?
   - Do you think that the scientific evidence is important to do that?
   - Do you have access to scientific evidence? Where? What?
   - (Ask about principal databases, journals, books consulted)
   - If not, what are the barriers to access to?
   - It is easy for you to access to professional development?
• What kind of activities can you access to?
• Do you feel that this kind of activities have good quality in Chile?
• If you are facing troubles or doubts, can you ask someone?
• Do you have any expert Occupational therapist to ask for guide on decision making?
• Do you have the opportunity to discuss each case on clinical meetings?
• Do you feel that in Chile you have clear experts in different topics on paediatric settings?
• How do you know that you are making the best decision?

IV. TREATMENT

1. Do you have enough resources to reach therapeutic goals with your clients?
   • Infrastructure, appropriate physical implementation
   • Enough time each session and enough sessions in the whole treatment
   • Is anything interfering this process? (e.g. regulations within the institution)
   • What makes you feel that your therapy is working?
   • Can you change at any time the course of the treatment? What the reasons are?
   • If not, why?

2. When the process is finished, how do you know that are you achieving the goals proposed?
   • If they bring these up, prompt in each:
     • Training (University? Professional development?)
     • Colleagues / mentors?
     • (Who? / How? /How do you share experiences?)
     • Research (Which journals, databases, which authors / topics?)
     • Clinical experience (describe more how this helps eg. Of what you have learned from your experience with clients)
V. Just dreaming..... If you can get something that you need to enhance your practice, what do you wish?
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Years of experience</td>
<td>6 months -5 years</td>
</tr>
<tr>
<td></td>
<td>5-10 years</td>
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<tr>
<td></td>
<td>10 or more years</td>
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<tr>
<td>Geographic area</td>
<td>Northeast area</td>
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<td></td>
<td>Central area</td>
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<td></td>
<td>Southeast area</td>
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<tr>
<td>Professional development</td>
<td>Professional Title</td>
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<tr>
<td></td>
<td>Bachelor</td>
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<td></td>
<td>Master/ PhD</td>
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<tr>
<td>Therapeutic settings</td>
<td>Rehabilitation center</td>
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<td></td>
<td>School</td>
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<td></td>
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<td></td>
<td>Mental health</td>
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<tr>
<td>Kind of institution</td>
<td>Public</td>
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<tr>
<td></td>
<td>Private</td>
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<td></td>
<td>NGO</td>
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Appendix 5

ETHICS APPROVAL

THE UNIVERSITY OF QUEENSLAND
Institutional Human Research Ethics Approval

<table>
<thead>
<tr>
<th>Project Title:</th>
<th>Sources of Information Used by Paediatric Occupational Therapists in Chile to Make Clinical Decisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Investigator:</td>
<td>Ms Jennifer Garcia</td>
</tr>
<tr>
<td>Supervisor:</td>
<td>Dr Jodie Copley, Dr Merrill Turpin, Dr Chi-Wen Chien</td>
</tr>
<tr>
<td>Co-investigator(s):</td>
<td>Dr Jodie Copley, Dr Merrill Turpin, Dr Chi-Wen Chien,Natalia Pena</td>
</tr>
<tr>
<td>School(s):</td>
<td>SHRS</td>
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<tr>
<td>Approval Number:</td>
<td>2015000632</td>
</tr>
<tr>
<td>Granting Agency/Degree:</td>
<td>Master of Philosophy</td>
</tr>
<tr>
<td>Duration:</td>
<td>31st December 2016</td>
</tr>
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</table>

Comments/Conditions:

Expedited Review - Low Risk

Note: If this approval is for amendments to an already approved protocol for which a UQ Clinical Trials Protection/Insurance Form was originally submitted, then the researchers must directly notify the UQ Insurance Office of any changes to that Form and Participant Information Sheets & Consent Forms as a result of the amendments, before action.

Name of responsible Committee:
Behavioural & Social Sciences Ethical Review Committee
This project complies with the provisions contained in the National Statement on Ethical Conduct in Human Research and complies with the regulations governing experimentation on humans.

Name of Ethics Committee representative:
Associate Professor John McLean
Chairperson
Behavioural & Social Sciences Ethical Review Committee

Signature [Signature] Date 7/4/2015