An Exploration of Goal Setting in Acquired Brain Injury Rehabilitation

by

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A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy

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Abstract

Facilitating goal setting with individuals following acquired brain injury (ABI) is challenging to rehabilitation professionals due, in part, to the presence of impairments in cognition and communication. As a result, these individuals have been largely excluded from research on goal setting and their participation in clinical goal setting may be limited. Given that client participation is an integral part of client-centred goal setting in occupational therapy, understanding how to enable participation by individuals with ABI is imperative. **Purpose:** The purpose of this dissertation is to develop an understanding of how occupational therapists facilitate goal setting with individuals with ABI with the aim of improving therapists’ ability to enable client participation. **Methods:** Two studies were undertaken. First, a qualitative descriptive study was carried out to understand what occupational therapists say that facilitates or hinders problem identification during initial goal setting interviews. The second study used grounded theory design and sought to understand how clinical occupational therapists set goals with individuals with ABI. **Results:** Types of communications that facilitate and hinder goal setting were identified along with two distinct means of goal setting, *embracing client-determined goals* and *conceding to organization-determined goals*. These means, each stemmed
from a different goal source (i.e. who decides the goal). Few therapist participants were fully able to embrace client-determined goal setting while the majority prioritized organization-determined goals instead. Assumptions underpinning how therapists prioritized the client and their goals were identified along with strategies to facilitate this process. That therapists experienced considerable struggles with implementing client-centred goal setting practice against organization obligations explained why the majority of therapist participants were unable to fully embrace client-determined goal setting.

**Conclusions:** Occupational therapists struggle with implementing client-centered goal setting in ABI rehabilitation. Values placed on advocacy and empowerment aid our understanding of the assumptions underlying embracing client-determined goals. By improving training in advocacy skills at the practice setting level, and using facilitative communications such as reflective listening, occupational therapists may be better equipped to bridge the gap between client-centred beliefs and clinical practice in goal setting in brain injury rehabilitation.
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1. My family. Without them, this journey would not have been possible.

2. The courageous individuals living with acquired brain injury and the dedicated clinicians who work with them. Without them, there would be no reason for this journey.

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Chapter 1

1 Introduction

1.1 An Exploration of Goal Setting in Acquired Brain Injury

How occupational therapists facilitate goal setting with individuals with cognitive impairment due to acquired brain injury (ABI) is explored and elucidated in this doctoral dissertation. Using a qualitative approach to inquiry, approaches to goal setting in occupational therapy are uncovered and specific clinical strategies to facilitate goal setting in this specific population are identified. Unique contributions from this research are presented: what occupational therapists say and don’t say that facilitate and hinder problem identification (the first step in goal setting); elucidating how goal source (i.e. who decides the goal) impacts the goal setting means followed; and understanding how efforts toward client-centred practice in goal setting are thwarted by conflicts with workplace parameters.

This introductory chapter will provide a brief rationale for why clinicians and researchers should be interested in understanding how to facilitate goal setting with individuals with ABI. Existing challenges in goal setting are outlined along with a description as to why these clients should be identifying their own rehabilitation goals and why clinicians appear to have difficulty facilitating this process. The positionality of the researcher, along with the theoretical approach taken in this dissertation, are described to enable the reader to assess these influences in relation to the research. How specific terminology is used throughout this dissertation is also presented. The chapter concludes with identification of the purpose and objectives of this research and an orientation to the organization of this thesis.

1.2 Rationale

ABI is damage to the brain that results from a traumatic or non-traumatic event and is not related to a congenital or degenerative condition (Ontario Brain Injury Association, 2013). It has been estimated that 70,000 Canadians sustain traumatic brain injuries (TBI) annually (Canadian Institute of Health Information, 2006) and an additional 50,000 incur brain injuries due to stroke
According to the 2010/2011 Canadian Community Health Survey (Statistics Canada, 2013) an estimated 500,000 Canadians are ABI survivors. As life saving medical technology advances, more and more people are living with the long-term sequellae of brain injury including emotional, cognitive, and physical impairments (Brain Injury Association of Canada, 2013). These, in turn, have considerable impact on the day-to-day function of ABI survivors and result in the need for rehabilitation services.

Occupational therapists are rehabilitation professionals who provide services to enable individuals with ABI to return to meaningful occupation following injury. They espouse client-centred values in their practice which means that the relationship with their client is one of partnership (Townsend & Polatajko, 2007). Occupational therapy services are offered in a variety of publically and privately funded care settings including, but not limited to hospitals, rehabilitation centres, long-term care facilities and clients’ homes or work places. Funding for services in Ontario comes from public sources (i.e. the provincial health ministry) and third party payers (e.g., auto insurance, extended health insurance, private individuals) (OSOT, 2010). Both public and private payers (with the exception of individual fee for service clients) have established limits to the amount and/or availability of occupational therapy (e.g., number of sessions, maximum dollar limit) (OSOT, 2010).

The Ontario Society of Occupational Therapists, a voluntary provincial professional organization, reported that over half of their members identified their primary or secondary clientele to be individuals with neurological disorders, stroke, and traumatic brain injury (OSOT, 2010). This suggests that providing services to individuals with ABI represents a considerable part of occupational therapy practice.

The current economic climate of the public and private health care systems in Canada requires health care organizations to effectively manage resources, including occupational therapy personnel within limited budgets and time frames (Smith et al., 2013). Length of stays for acute care and inpatient rehabilitation are becoming shorter. For example, in Ontario, the median length of stay in inpatient rehabilitation for an individual with stroke as a primary diagnosis has declined from 22 days in 2002, to 18 days in 2007 (CIHI, 2008). As such, there is considerable
pressure on occupational therapists to demonstrate the effectiveness of their interventions while adhering to client centred practice values that prioritize client participation.

Measuring outcomes according to client centred goal achievement is one way to establish the effectiveness of interventions (Kennedy, O’Brien & Krause, 2012). Goal setting has been one method used to measure progress toward goal achievement and functional outcomes in rehabilitation (e.g., Malec, 1999). Mixed evidence suggests that using goal achievement to measure outcomes may not be capturing other factors that contribute to well-being (e.g., self-efficacy). Understanding these other factors, and how they contribute to independence in goal directed behaviour may be of particular importance to individuals with cognitive impairment due to ABI.

Independence in daily life relies on complex cognitive functions that promote adaptive goal directed behaviour. Goal direction, the process through which we identify, pursue and evaluate progress towards desired outcomes, is frequently disrupted by ABI (Duncan, Emslie, & Williams, 1996) and this can negatively impact independence. Brain injury is often associated with impairments such as executive dysfunction and self-awareness that are thought to disrupt goal-setting processes (Stuss & Alexander, 2007).

Recognizing this, rehabilitation programs and professionals, including occupational therapists, have used goal setting to direct and focus care. Subsequently, there have been a number of interventions developed that address aspects of goal setting. For example, the Canadian Occupational Performance Measure (Law et al., 1998) was designed to identify occupational performance problems with rehabilitation clients. Goal Management Training (Levine et al., 2000) and Cognitive Orientation to daily Occupational Performance (Dawson et al., 2009; Dawson, Binns, Hunt, Lemsky, & Polatajko, 2013) are interventions that have been used to train individuals with ABI to work toward achievement of identified goals. However, a lack of understanding persists about how to enable clients with brain injury to identify their own goals and clinicians are reported to struggle with this process (Levack et al., 2006). Further, these interventions are largely reliant on verbal communication between therapists and their clients with brain injury who may have concomitant communication deficits.
There is a growing body of empirical evidence that including clients with brain injury in goal setting is associated with better functional outcomes (e.g., Pont-Allen & Giles, 1998; Trombly et al., 2002; Webb & Glueckoff, 1994). Client inclusion in goal setting has also been associated with improvements in psychosocial factors that contribute to well-being such as increased hope, motivation and engagement (Dalton, et al., 2011; Van De Weyer et al., 2009; Webb & Glueckoff, 1994). Participation in goal setting has been shown to contribute toward the development of self-awareness (Bergquist & Jacket, 1993) and improved self-efficacy (Locke & Latham, 2013). This evidence, in combination with theories of goal-directed behaviour, and self-regulation suggest that goal setting is an important skill to be retrained in individuals with ABI (Ertzgaard, Ward, Wissel, & Borg, 2011). Understanding how to enable these clients to self-set their own rehabilitation goals is an important step toward optimizing independence in goal directed behaviour in every day life.

Despite the widespread emphasis on client centred practice in rehabilitation which promotes a collaborative partnership in goal setting, considerable challenges exist to enabling client’s participation in this process (Barnard, Cruice, & Playford, 2009; Parry, 2005; Playford, Siegert, Levack, & Freeman, 2009; Schoeb, 2009; Van De Weyer, Ballinger, & Playford, 2010). These challenges include assumptions by the clinician that individuals with cognitive and communication impairments due to brain injury are not capable of participating in goal-setting, lack of client knowledge about goals, lack of clinician experience, and organization factors that constrain client inclusion such as case load demands (Trentham & Dunal, 2009). A better understanding is needed about how clinicians can facilitate participation by individuals with cognitive impairments due to ABI in goal setting.

1.3 Purpose & Objectives

The purpose of this research is to explore how occupational therapists facilitate goal setting with individuals with cognitive impairment due to ABI. The objective is to provide occupational therapists with guidance about how to enable and optimize participation in goal setting by their clients with ABI. On a broader scale, the aim of this thesis is to raise awareness of the importance of goal setting, that what we say or don’t say matters, and how our beliefs,
assumptions and the context within which we work, shape how we facilitate goal setting in brain injury rehabilitation.

The overarching research question to be examined is:

*How do occupational therapists facilitate participation by the individual with cognitive impairments due to ABI, in the setting of his or her own rehabilitation goals?*

Embedded in this question are uncertainties that require examination and will be explored in this dissertation.

1. What are the factors and processes that enable client participation in goal setting with individuals with ABI?
2. How do cognitive impairments affect these factors and processes?
3. How do therapists’ beliefs about their abilities and their clients’ limitations affect the goal setting process?
4. How do these factors and processes relate to previous research findings?
5. What is the role of ‘occupation’ in goal setting? How is this incorporated in the goal setting process?
6. How does context shape the goal setting process?

### 1.4 Research Design

As goal setting is a complex process and cannot fully be understood using quantitative methods, this dissertation uses qualitative inquiry to explore the research questions. Two qualitative methods were chosen: grounded theory and a descriptive design that draws on tenets of conversation analysis.

Grounded theory is one approach to systematically study the diversity of the goal setting process. This perspective is useful in studying phenomenon in the real world in contrast to empirical research that may lose the contextual reality of that particular phenomenon (Glaser & Strauss, 1967). Unlike other types of research that test *a priori* hypotheses, grounded theory ideas are generated by the data itself. Grounded theory aims to generate theory from data and is illustrated by characteristic examples from the data (Glaser & Strauss, 1967). Generating a theory from the
data means that hypotheses come from the data and are systematically addressed during the research process in contrast to empirical research in which an explanation or hypotheses is developed first from other sources and then tested to see if the data fit that explanation. In this way, theory is ‘grounded’ in the data and represents an inductive, analytical approach to research, rather than an empirical, deductive method (Charmaz, 2006; Glaser & Strauss, 1967).

Stanley & Cheek (2003) proposed that grounded theory has a role in research about occupational therapy practice, professional issues and education. They argued that the profession would benefit from the development of theory unique to occupational therapy and grounded theory research would be one way to address this. Further, they suggested that grounded theory research, with its examination of practice within real world contexts would be ‘truly client-centred and a significant step forward for the profession.’ (Stanley & Cheek, 2003, p. 148). As the research questions identified revolve around an occupational therapy practice, namely goal setting with individuals with ABI, grounded theory methods were chosen as one of two research designs to address these questions.

Grounded theory methods, as described by Charmaz (2006), were used to guide data collection and analysis in the studies described in Chapters 4 and 5. Charmaz (2006) offers an interpretation of grounded theory that “returns to the classic statements of the past century and re-examines them through a methodological lens of the present century” (Charmaz, 2006, p. xi). She presents a framework of grounded theory based largely on the original work of Glaser & Strauss.

Another qualitative research approach, conversation analysis (ten Have, 2007) inspired the methods used in a second study in this dissertation. Tenets of conversation analysis were used in the design of a descriptive study that aimed to examine interactions between occupational therapists and individuals with ABI during goal setting. Conversation analysis offers a methodology to systematically examine interactions between health care professionals and their clients (Drew, Chatwin, & Collins, 2001; Heritage & Maynard, 2006; ten Have, 2007) and has been used in rehabilitation settings (Barnard et al., 2009; Parry, 2004; Schoeb, 2009). A descriptive study inspired by conversation analysis (ten Have, 2007) was used to study factors
that facilitate or hinder problem identification during initial goal setting interviews between individuals with ABI and occupational therapists (Chapter 3).

1.5 Reflections on Positionality of the Researcher & Research Tradition

According to qualitative research traditions, reflexivity, or the researcher’s scrutiny of his or her own position in relation to the research, is necessary to enable the reader to judge how the researcher’s interests, positions and assumptions influenced the study (Charmaz, 2006). As such, my training, values, beliefs, and experiences as a clinical occupational therapist and as a doctoral student in rehabilitation science were considered in relation to the design, data collection and interpretation of data. In addition, a social constructivist understanding of knowledge creation informed the development and analysis of this dissertation. The meaning that this imparts on the inquiry also requires comment.

The research tradition adopted in this dissertation is that of social constructivism, in the interpretive tradition with some positivist leanings. When I began this doctoral journey, I viewed research from a positivist viewpoint. My pre-PhD background included participation in research projects that had a priori hypotheses, and used experimental design to test those hypotheses with objective measures. As the questions I wanted to explore in this dissertation lent themselves to using qualitative inquiry, I have had to learn about and adopt research traditions that were more suitable. Social constructivism “is a theoretical perspective that assumes that people create social reality(ies) through individual and collective actions” (Charmaz, 2006). As a social constructivist, I aim to study how and why participants construct meanings and actions in particular circumstances. Data and analyses are viewed as determined from shared experiences and relationships with participants. The researcher is considered to be part of the research process. Understanding the researchers preconceptions and assumptions resulting from a priori experience is therefore important as these can influence the research.

My training and experiences as clinical occupational therapist were an integral part of the entire research process. My frustrations with the lack of effective interventions for individuals with ABI led to the development of the specific research questions and subsequent explorations about
goal setting. While my clinical training, which took place in the United States, did not explicitly include client-centred practice as it is currently taught in Canada, I nonetheless developed an appreciation for the principles of client-centeredness through my clinical work and developed strong beliefs in the inherent value of these principles. I undertook this research valuing the guiding principles for enabling occupational therapy practice (Townsend, 1997). These include among others, principles to “guide clients to identify needs from their own perspective” and to “encourage and actively facilitate clients to participate…” (Townsend, 1997, p. 51). These underlying assumptions have most certainly influenced my research questions, study designs and interpretations of data.

While my own experiences have shaped this research, so have those of my program advisory committee. These members have offered thoughts and ideas that are influenced by their own research traditions, and experiences included their status as rehabilitation professionals, academics, and researchers. Three of the committee members are occupational therapists (DD, HP, BT) and one is a speech-language pathologist (GLD). The positionality of these researchers and rehabilitation professionals is such that all are very familiar with the contexts within which participants worked. In addition, the four occupational therapist researchers’ training is similar to the participants and assumes that they share similar professional values and beliefs with the participants.

Their research interests are relevant when considering their impact on this research project. Deirdre Dawson’s role as my doctoral supervisor was to oversee the project. She is also an occupational therapist and researcher whose primary research interest is cognitive rehabilitation with individuals with ABI and the impact of executive dysfunction on everyday life. Guylaine Le Dorze a speech language pathologist, whose research interests relate to real-life communications for individuals living with ABI and an expert in qualitative research methods, served as a design consultant and conducted data analysis in conjunction with the full committee and myself. Barry Trentham, an occupational therapist who also has expertise in qualitative methods, and a research focus in geriatric community rehabilitation, provided consultation regarding methods and data analysis. Helene Polatajko, an occupational therapist with expertise in occupational science provided consultation regarding methods and analysis.
1.6 Terminology

A number of different terms are found throughout the literature and this dissertation. Many of these terms have the same meaning, while subtle differences are found between others. How these terms are used in this dissertation will now be explained.

Individuals with ABI and the occupational therapists who work with them are the focus of, and research participants in, this dissertation. More specifically, individuals with ABI who have cognitive impairments are the client population of interest. When the terms ‘acquired brain injury’ or simply ABI are referred to, the reader should assume that this refers to those with ABI who also have cognitive impairments arising from their ABI.

The terms ‘client’ and ‘patient’ are found throughout health care literatures. In the occupational therapy literature, individuals who are the recipients of service are commonly referred to as ‘clients’. However the term ‘patient’ is also used particularly in medically focused literature. In this dissertation, I use the term ‘client’ when referring to the recipient of health care services and when the writing is my own. However, when referring to another authors’ work, I retained their original words, which in many instances included the term ‘patient’. For the purposes of this dissertation, the terms patient or client, refer to the recipient of health care service.

The other participants in my studies were practicing occupational therapists. While they are largely referred to as such throughout the dissertation, there are times when the term ‘therapist’ or clinician is used instead for brevity.

Terms that describe the context of rehabilitation are used throughout this dissertation (e.g. rehabilitation; neurorehabilitation). These terms are used interchangeably and are assumed to impart the same meaning: rehabilitation service for individuals with ABI. All therapist participants worked in neurorehabilitation practices. For this dissertation, this meant that they worked with individuals in a practice setting in which their primary clientele were individuals with ABI.
1.7 Thesis Organization

This thesis is presented using a manuscript format where several chapters are stand-alone papers (Chapters 3-5). In Chapter 1, the reader is presented with a general overview of the dissertation, and an introduction to the rationale and purpose of the research. A discussion of the positionality of the researcher and a brief description/clarification of relevant terminology is also provided. Chapter 2 presents the background and context for this research in a comprehensive review of the relevant literature. Gaps in the literature are identified and questions for future research are raised. Chapter 3 consists of a manuscript entitled, “Communication during goal setting in acquired brain injury: what helps and what hinders?” This paper introduces a descriptive study that examines how goal setting is facilitated or hindered by therapist communication. Chapter 3 has been submitted to the British Journal of Occupational Therapy. Chapter 4 and 5 report the results of a study that used grounded theory methods to explore occupational therapists’ experiences with goal setting with individuals with ABI. Chapter 4 is entitled, “The challenge of client-centred goals in brain injury rehabilitation: Embracing the impractical, unrealistic, and unattainable.” This chapter uncovers how some occupational therapists were able to prioritize the client and their goals above all else. It describes how these therapists experienced and managed tensions that arose as a result of enabling the client to determine their own rehabilitation goals. Chapter 4 has been submitted to the Canadian Journal of Occupational Therapy. Chapter 5 explains the view of the majority of therapist participants who struggle with enabling their clients with ABI to set their own rehabilitation goals. An inability to overcome these struggles resulted in accepting organization-determined goals for their clients instead of the client’s goals. Chapter 5 is entitled, “The goal is discharge: Therapists’ views about organizational influences on goal setting in brain injury rehabilitation” and has been submitted to the Journal of Qualitative Health Research. The final chapter (Chapter 6), presents an integration of evidence from previous chapters, and discusses how my research is situated within the larger literatures about goal setting, brain injury rehabilitation, client-centeredness, advocacy and empowerment. The limitations of this dissertation are identified and discussed. Finally, clinical implications are described and areas for future research are identified.
Chapter 2

2 Background

2.1 Introduction

Independence in everyday activities assumes successful performance of goal directed behaviours. Goal directed behaviour is a dynamic process that requires coordination of multiple cognitive and physical skills to achieve an identified objective. Injury or illness can impair this process. Client centred rehabilitation is concerned with assisting individuals to resume participation in goal directed behaviour and intervention is often framed around working toward client-centred goals.

Goal setting is considered not only useful practice in rehabilitation, but is standard practice for many professionals including occupational therapists (College of Occupational Therapists of Ontario, 2003). The use of meaningful client centred goals encourages patient motivation and participation in rehabilitation interventions (Matsos, Miller, Eliasson, & Imms, 2004; Sumison, 2004; Townsend & Polatajko, 2007). Goal setting also provides a framework for interventions and a focus for rehabilitation teams (Siegert, McPherson, & Taylor, 2004). Use of client-centred goals is also associated with better rehabilitation outcomes (Kus, Muller, Strobl, & Grill, 2011; Matsos et al., 2004; Webb & Glueckauf, 1994).

However, evidence suggests that goal setting with rehabilitation participants is not straightforward and continues to be a largely clinician driven and effortful process (Barnard et al., 2010; Schoeb, 2009). Much of the research on goal setting has been done with client populations with intact or minimally impaired cognition. Individuals with moderate to severe cognitive impairment due to ABI have been largely excluded from research on goal setting due to the additional challenges that exist in goal setting with these rehabilitation participants. As a result, little is known about how to best facilitate client participation in goal setting with this clientele.
This chapter will examine the issues related to goal setting in rehabilitation of individuals with ABI and demonstrate why a better understanding of how clinicians set goals with this clientele is needed. A literature review was conducted that explored a broad expanse of literature from 1993 to present (2013). Theoretical papers, empirical studies, qualitative explorations and book chapters from cognitive neuroscience, psychology, and rehabilitation literatures were included. Findings relevant to the thesis objectives are reported in this chapter. The theoretical background for goal directed behaviour and goal setting is presented. What is known about goal setting in rehabilitation and more specifically with individuals with ABI is discussed. Gaps in the literature and outstanding questions are also identified.

2.2 Theoretical Background

This section will explain the concept of goal directed behaviour and its importance in independence by describing theoretical and neural underpinnings. Theoretical perspectives from self-regulation, social-cognition and rehabilitation are explained.

2.2.1 What is goal directed behaviour?

Goal directed behaviour is a complex process by which we identify, and then work toward, achievement of a desired state (Duncan, 1986). It requires control and integration of multiple cortical structures and processes, with considerable activity taking place across, and within, the domains of frontal lobe function (Declerck, Boone, & De Brabander, 2006; Stuss, 2009). Individuals can be engaged in goal directed behaviour at a conscious or automatic level depending on the novelty and complexity of a particular goal (Oddy, Worthington, & Francis, 2009).

Goals have been described as a future state that we want, desire, or expect to attain (Wade, 1998). Playford and colleagues (2009) add that progressing toward goal achievement requires action and effort. They further distinguish long-term goals as those that are set at the limits of the foreseeable future and are based on patient’s priorities and values, and focus on social roles and participation. Short-term goals are set at any level of function and are limited to a specific objective (Playford et al., 2009). In goal directed behaviour, our actions or behaviour are subsequently directed toward achievement of these desired states or goals (Duncan, 1986).
2.2.1.1 Stages and Process of Goal Directed Behaviour

Goal directed behaviour has also been described as a dynamic decision making process that includes the component processes of goal identification, action selection, response activation and inhibition, performance monitoring and evaluation, and performance adjustment (Ridderinkhof, van den Wildenbeg, Segalowitz, & Carter, 2004). Goal identification may occur at an automatic or conscious level and may arise from internal or external triggers. Goals become conscious when they are novel or complex and trigger the need for higher processing (i.e. metacognitive processing) (Duncan, 1986; Stuss, 2009).

Goal identification is thought to be the initial stage in the process of goal directed behaviour (Duncan, 1986). It arises through identifying the difference between a current and desired state; in other words the identification of a problem. Once the individual recognizes this discrepancy or problem, they can direct their behaviour toward plans and actions to attain the desired state or goal.

The next stage is action selection and the development of an “action structure”. Here, the individual prioritizes goals and inhibits competing goals. A plan for action is then developed to decrease the difference between the individual’s current and desired states (Duncan, 1986; Ridderinkhof et al., 2004; Stuss, 2009).

Once a course of action is selected, it is carried out with ongoing evaluation and monitoring of the actions (Duncan et al., 1996). Evaluation and monitoring may involve metacognitive processing if the chosen goal requires explicit, cognitive attention. Ongoing monitoring occurs during action and requires the individual to inhibit competing goals and to continually attend to and prioritize competing goals (Locke & Latham, 2002).

Adjustment of actions or modifications to the goal, may be made as required until the desired state is reached (Duncan, 1986; Duncan et al., 1996). Adjustment requires the individual to engage in ongoing review of their performance throughout the process.
2.2.2 Neurocognitive perspectives

Goal directed behaviour, from a neurocognitive perspective, can be explained by what is known about frontal lobe function (Stuss, 2009). Based on results from lesion studies, Stuss (2009) proposed that frontal lobe function is comprised of four domains that have anatomical and functional distinctions: executive cognitive functions; behavioural self-regulation; regulating energization or activation; and metacognitive processes. Goal directed behaviour requires the integration of skills within and across each of these domains and is inherently linked to executive processes (Stuss, 2009). Arousal and awareness have been implicated as essential to goal directed behaviour and goal identification in particular (Bergquist & Jacket, 1993; Oddy et al., 2009).

Duncan’s (1986) theory of goal neglect considers that goal directed behaviour can occur on both conscious and unconscious levels and is largely controlled by the prefrontal cortex (PFC). The PFC is central to the process of goal identification, action selection and goal monitoring. According to Duncan’s theory, individuals with frontal lobe damage fail to generate goal lists of how to solve problems and achieve goals. Further, these individuals have difficulty monitoring progress toward those goals. Cicerone and colleagues (2006) take Duncan’s theory a step further by asserting that individuals with brain injury may be able to generate an idea or goal, and even a plan, but there may be a disconnect between their intentions and the initiation of action.

2.2.3 Self-regulatory perspectives

Goal directed behaviour is also explained by theories of behavioural self-regulation (Hart & Evans, 2006; Siegert, McPherson & Taylor, 2004; Zimmerman, 2005). This view incorporates affective constructs such as emotion and motivation, and self-regulatory and control behaviours. They assert that behaviour in humans is self-regulated to meet personal standards or goals. Individuals are motivated to act by perceiving and then working to reduce discrepancies between current states and desired or goal states. These theories, also suggest that behaviour is goal driven and that individuals strive toward multiple goals simultaneously. Progress or failure toward goals has affective or emotional consequences and success in goal achievement is determined by skill in self-regulatory behaviour. Siegert and colleagues (2004) proposed that
self-regulatory approaches to goal setting are very relevant to individuals with ABI due to impairments in processes (e.g., executive dysfunction) that affect goal directed behaviour.

From a clinical perspective, Hart & Evans (2006) suggest that goal directed behaviour involves planning, self-monitoring and behavioural control. This supports the aforementioned idea that goal directed behaviour requires the integration of information from across the frontal lobe domains specified by Stuss (2009). They further propose that individuals do not generally set, modify and evaluate goals explicitly in familiar day-to-day activities, but do so implicitly. In more complex and unfamiliar situations, explicit behaviour is required. Thus, they assert that goal directed behaviour occurs on two levels. On one level, goal directed behaviour is focused on attaining goals at a performance-based level on individual or specific tasks. On another level, individuals focus on the metacognitive processes involved in planning and managing one’s own goal directed behaviour. In this way, the individual learns the process of self-regulation with respect to goal achievement. Both levels involve a process, which includes goal identification and commitment, and monitoring and adjustment of performance or the goal, to reach the selected goal.

2.2.4 Social cognitive & organizational psychology perspectives

Goal theory, as put forth by organizational psychologists Locke and Latham (2013), is inextricably linked to social cognitive theories of behaviour such as self-efficacy (Bandura, 1991). Given that rehabilitation is concerned largely with conscious goal directed behaviour and performance, it is worth considering the seminal goal setting theory put forth by organizational psychologists Locke and Latham (2002, 2013). Research using their theory spans over forty years and across many literatures. Their theory was built inductively upon the foundational concept that conscious goals affect action. As defined by Locke and Latham (2002), a goal is the object or aim of an action. They focused on conscious goal setting as a way to predict, or explain work-related performance. They specifically studied the relationship between conscious performance goals and level of task performance. The foundational components of this theory are consistent with the theoretical basis upon which the emphasis in rehabilitation of executive dysfunction (a common sequellae following ABI) has been built, namely using metacognitive strategy training to improve performance.
According to Locke & Latham, (2006) a goal is used to achieve behaviour change. As such, self-regulatory behaviour plays a key role in the identification of goals. Citing empirical studies that have included over 40,000 participants, using experimental and correlation research designs, they concluded that setting specific, difficult goals in combination with performance feedback, leads to higher performance than having no goal or being told to “do your best” (Locke & Latham, 2013).

This considerable body of evidence led Locke and Latham (2013) to identify several mechanisms or mediators between goals and performance. First, goals serve a directive function. They direct attention toward goal relevant activity and away from irrelevant activity. Second, they have an energizing function. Setting high or difficult goals leads to greater effort toward goal achievement. Third, goals affect persistence through effort and motivation. Fourth, goals affect action indirectly by encouraging awareness and the discovery of relevant strategies to enable goal achievement. Further, they assert that the relationship between goals and performance is moderated by feedback, commitment to the goal, task complexity and situational constraints. According to their theory, goals can be assigned, collaboratively set or self-set.

Social cognitive theory of self-efficacy, or individuals beliefs in their own capabilities is thought to have an impact on the ability to set realistic goals (Bandura, 1991). The more capable an individual feels, the more likely he or she will be to set challenging goals and remain committed to those goals (Bandura, 1991; Locke & Latham, 2013). Individuals, who are not confident in their competence, may be more easily distracted from their goal pursuit when encountering difficulties or challenges (Bandura, 1991). In healthy adult populations, individuals with high self-esteem have been reported to set higher goals, were more committed to a particular goal, and identified and used strategies and feedback better to reach those goals than those with low self-esteem (Locke & Latham, 2013).

Seminal social cognitive theorist, Bandura, also proposed that self-regulation is important in goal setting as self-monitoring and self-observation skills are needed throughout performance of successful goal directed behaviour (Bandura, 1991). Through self-observation, information to guide realistic goal setting is gathered. Self-observation and self-monitoring are also necessary to evaluate one’s progress toward goal achievement (Bandura, 1991).
2.2.5 Rehabilitation Perspectives

Rehabilitation theorists have considered self-regulation, social cognition, and client-centeredness to be important components of goal setting. Siegert and colleagues (2004) wrote a review paper that proposed that viewing goal setting according to self-regulation theory might enable clinicians to engage in more successful goal setting with their clients. Schwarzer and colleagues (2011) based their Health Action Process Approach (HAPA) on principles of behavioural self-regulation (motivation and volition, action planning and intentions) and social cognition (self-efficacy). Scobbie and colleagues (2011) combined principles of behavioural self-regulation, and social cognition in a goal setting and action planning framework that is based on social cognitive theories of self-efficacy (Bandura, 1991), goal setting theory (Locke & Latham, 2002) and the Health Action Process Approach (Schwarzer et al., 2011). Client-centred practice frameworks are also prominent in rehabilitation literature, and guide therapists to include the client in all aspects of his or her rehabilitation (Restall, Ripat, & Stern, 2003; Sumison & Law, 2006; Townsend, 1997; Townsend & Polatajko, 2007). Recently, Hersh and colleagues (2012) put forth a SMARTER goal setting framework for aphasia rehabilitation in an effort to improve collaborative, client-centred goal setting with these clients.

Given that Scobbie and colleagues’ (2011) framework explicitly addresses goal setting in rehabilitation, a more detailed description is warranted. They identified seven theoretical constructs from theories of self-efficacy (Bandura, 1991), goal setting (Locke & Latham, 2002) and the Health Action Process Approach (Schwarzer et al., 2011) to guide the development of their goal setting framework: self-efficacy; outcome expectancies; goal attributes (e.g., difficulty); action planning; coping planning and; appraisal and feedback about performance. Using these constructs and causal modeling methods, they identified a framework that details intervention points and behaviour change techniques associated with each point. Intervention points were: developing the goal intention (goal negotiation); setting a specific goal (goal setting); activating goal related behaviour (planning and action); and appraising performance and giving feedback.

The first intervention point was described as developing the goal intention and helps us understand how clinicians identify goals. This involved discussion and negotiation between the
client and the health care team or clinician. Use of persuasive communication, modeling and reinterpretation of symptoms were suggested behaviour change techniques to facilitate goal development. Setting the specific goal was the second possible point of intervention. Here, the client and clinician consider goal specificity, difficulty and determine whether professionally set or client set goals are to be used. Intervention point 3 addressed the activation of goal related behaviour or the actual action planning. This point also included consideration of how to address potential barriers to the action plan (Scobbie et al., 2011). Collaboration between client and therapist, and interdisciplinary team support are inherent parts of this model. This framework provides a foundation for research and intervention related to goal setting and goal directed behaviour in rehabilitation, by combining relevant theoretical models. However, its clinical utility, particularly in evaluating suggested facilitation techniques with individuals with cognitive impairment due to ABI, has not been tested. Nor does it include how the workplace or organizations’ priorities influence the goal setting process.

The SMARTER goal setting framework for aphasia rehabilitation is worth considering as many concerns regarding goal setting with this group of clients are similar to those with ABI (Hersh et al., 2012). This framework was developed based on a multi-centred Australian study that explored the goal setting experiences of clients, families and speech-language pathologists using in-depth interviews. One of the outcomes was a suggested modification to the SMART (Specific, Measureable, Achievable, Realistic, and Time-bound) goal setting rubric. The suggested change was thought to better reflect goal setting with individuals with aphasia: SMARTER (Shared, Monitored, Accessible, Relevant, Transparent, Evolving and Relationship-centred). This framework encourages rehabilitation professionals to be aware of how individual goals evolve over time and considers how to prepare the client for involvement in goal setting.

Client centred practice approaches have been prominent in rehabilitation and are foundational in models of occupational therapy (e.g., Canadian Model of Occupational Performance) (Restall & Ripat, 2003; Townsend, 1997; Townsend & Polatajko, 2007). These approaches recognize the interaction between the individual (client), their clinician, contextual factors such as the environment, and meaningful occupation (Townsend, 1997). Enabling clients’ active participation in decision-making and choices about their health care and treatment programs are
integral to this type of approach. Client participation in goal setting is expected and encouraged in client-centred practice (Townsend, 1997).

2.3 Goal Setting & Rehabilitation: Practice & Influences

This section begins by reviewing how goal setting is understood in client-centred rehabilitation practice. Issues with clinical implementation relating to client-centeredness are considered, due to their relevance to goal setting in occupational therapy. Next, research regarding the outcomes of client-centred goal setting, and the environmental, contextual, client and clinician influences on goal setting is appraised. What is known about facilitating goal setting in rehabilitation, and specifically in brain injury rehabilitation concludes the section.

2.3.1 Goals & Client Centred Practice

Client-centred practice, is a widely used rehabilitation approach, and is inherent in occupational therapy practice. It asserts that participants should be involved in setting their own rehabilitation goals (Townsend, 1997; Townsend & Polatajko, 2007). This means that the client should actively participate in identifying and negotiating goals. Client-centred goals are presumed to be at the centre of all assessment, intervention and evaluation by occupational therapists (Sumison, 2004). However, in clinical practice, client-centred approaches have been found to be difficult to implement. There seem to be two main areas of difficulty. First, clients have been identified as being disempowered by the health care system with considerable power differentials existing between the client and therapist (Jones & Mandy, 2000; Sumison & Law, 2006; Townsend, 1998). Second, practice environment constraints to client-centred practice have also been reported (Duggan, 2005; Restall & Ripat, 2008).

In their review of evidence for the key elements of client-centred practice, Sumison & Law (2006) identified conceptual elements that addressed the power differential between client and therapist. Having a real partnership was asserted to reduce this disparity (Sumison & Law, 2006; Townsend, 1998). This meant that clients were expected to play a “much more active role in defining goals and outcomes” (Sumison & Law, 2006, p. 157) and that the client and therapist should be seen as equals with specific roles within the partnership. Listening, providing choices, and helping clients to maintain hope were identified as important elements in forming effective
partnerships and subsequently enhancing client-centeredness.

Restall and Ripat (2008) addressed environmental context constraints to client-centeredness in their investigation of the clinical utility of a practice framework, the Client-Centred Strategies Framework. This framework was designed to enable therapists to clinically implement client-centred practice strategies. Through focus groups and survey methods, they found that client-centred practice was influenced by environmental contexts on three levels. Survey results suggested that most therapists felt prepared and were comfortable implementing client-centred strategies at the micro level, in other words, at the level of the individual client. However discomforts, lack of knowledge and preparedness were reported with implementing client-centred strategies at meso (practice setting) and macro (coalition advocacy and political action) level environments. These authors noted a “profound effect of team and institutional philosophy on the ability of therapists to implement client-centred approaches.” (Restall & Ripat, 2008, p. 298). Duggan, (2005) reported similar findings in her action research study with occupational therapists. Environmental factors were identified as affecting therapists’ ability to be client-centred. The health care system was reported to determine the types of clients referred, issues addressed, and how priorities were determined. Therapists expressed frustrations about not being able to prioritize their clients’ needs and reported difficulties advocating for them.

There is emerging empirical evidence regarding the impact of using client-centred goal setting on therapy outcomes. Findings from several recent studies provide evidence to support that using client-centred goals leads to improved outcomes (Brock et al., 2009; Dalton et al., 2011; Kus et al., 2011). Kus and colleagues (2011) reported on a prospective, multi-centre cohort study (N=209) that aimed to identify client goals in post-acute geriatric rehabilitation and to examine their association with functional outcomes. Their findings indicated that individuals who attained at least one personal goal were three times as likely to have improved in overall functional outcomes than those who did not. Dalton and colleagues (2011) conducted a case-controlled study that retrospectively investigated differences in client inclusion in goal setting with individuals with ABI. They reported that clients included in goal setting were more engaged in their rehabilitation, set more goals and that the goals set were more appropriate. They noted that these benefits were of clinical significance but not captured on two measures of
function (FIM & Barthel Index), which did not show differences between the groups.

Brock and colleagues (2009) studied goals in relation to 45 clients recovering from stroke in a prospective exploratory design study. Goals that were identified as important by the patient were set by clinicians and achievement was measured using Goal Attainment Scaling. They found significant correlations between goal achievement and physical function, depression and self-efficacy. These researchers concluded that stroke survivors who achieve goals are less depressed and have more positive perceptions about their participation in everyday life.

Another empirical study examined the effects of direct involvement in goal-setting with individuals with traumatic brain injury (Webb & Glueckauf, 1994). During goal setting, participants were presented with “goal areas” previously determined by their rehabilitation team (e.g. self-control, socialization, community reintegration) and asked to rank their importance. With guidance from their therapist, goal attainment scaling was then done. Goal monitoring was actively performed using verbal and written work sheets as well as discussion at each session. Results indicated that the group with high involvement in goal setting maintained their level of goal attainment at a 2 month follow up when compared to a low involvement group. The latter group (low involvement) had returned to pre-intervention levels.

Holliday and colleagues reported results from a survey about goal-setting methods in neurorehabilitation (Holliday, Antoun, & Playford, 2005) and an optimised balance block design study examining increased client involvement in goal setting (Holliday, Cano, Freeman, & Playford, 2007). Their findings indicated that from client perspectives, consideration for sufficient time and information about the rehabilitation process and disease limitations are needed to improve client involvement. Ironically, results from their survey of 202 rehabilitation professionals indicated that thirty percent of clinicians surveyed did not routinely include the client in goal setting. The authors postulated that this resulted from lack of knowledge about how to involve clients in goal setting and that clinicians may be limited in their practices by their facilities.

Levack and colleagues (2006a, 2006b; 2011) extended these findings by examining the use of client-centred goal setting in stroke rehabilitation in several qualitative studies. Using grounded
theory methods, they interviewed nine clinicians from several rehabilitation professions and identified multiple purposes for goal setting. These ranged from providing direction in rehabilitation to providing hope and meeting contractual obligations. Moreover, they found that these purposes could conflict with one another, creating tensions for therapists and resulting in some goals being privileged over others (Levack et al., 2006b). In a subsequent study that included clinicians, clients and family members they reported that goals that were privileged tended to be those characterized by short time frames, and related to physical function (Levack et al., 2011). These researchers suggested that clinicians need to examine the values ascribed to certain goals, and to understand how the organization drives goal selection.

Two recent systematic reviews examined the evidence behind client-centred goal setting in stroke rehabilitation (Rosewilliam, Roskell, & Pandyan, 2011; Sugavanam, Mead, Bulley, Donaghy, & van Wijck, 2013). Methods for studying goal setting were found to be weak to moderate in strength. However, both reviews reported that there is evidence that rehabilitation outcomes are improved when the client is an active participant in goal setting. Other benefits that are important to recovery such as improved psychological outcomes were also reported (e.g., self-efficacy) (Rosewilliam et al., 2011; Sugavanam et al., 2013).

From the reviewed research, it is apparent that using goals in rehabilitation and active client participation in setting those goals confers benefits to clients. However, the optimal model for including the individual with ABI in goal setting is not clear. Despite the emphasis on client-centred practice in occupational therapy that promotes a collaborative partnership in goal setting, considerable challenges to client inclusion exist, and multiple factors are thought to influence the client’s participation and in this process.

Trentham & Dunal (2009) examined clinician’s experiences identifying occupational performance issues (functional problems) with older adults and recognized numerous issues relating to difficulties with problem identification (the initial step in goal setting). They categorized these issues as “person influences” and “environmental influences”. These categories appear to be a useful way of organizing the literature related to influences on goal setting in rehabilitation and are used here to describe influences and challenges to goal setting.
Person factors are further divided into clinician and participant influences as well as the clinician-participant relationship.

### 2.3.2 Environmental Influences

Environmental influences on goal setting in rehabilitation have been described according to time factors, as well as the environment where goal setting takes place. Occupational therapy values and beliefs view the environment as “including cultural, institutional, physical and social components” (Townsend, 1998, p. 31). Further that “performance, organization, choice and satisfaction in occupations are determined by the relationship between persons and their environment” (Townsend, 1998, p. 31). In this section, studies relating to environmental context are reviewed and include those relating to environmental setting and time.

Two studies reported findings relating to the issue of time and goal setting (Lawler et al., 1999; Trentham & Dunal, 2009). Lawler and colleagues (1999) identified that time is necessary for effective goal setting. Their qualitative study examined nurses’ perspectives about goal setting with clients with stroke. They reported that study participants agreed that broad information gathering was necessary for effective goal setting and that this required considerable time. Trentham and Dunal (2009) found similar results from their interviews with occupational therapists working in geriatric rehabilitation. Notably, they concluded that identification of occupational performance issues (i.e. problems to be formulated as goals in rehabilitation) occurred in an iterative manner over time and that building rapport to see what motivated participants was crucial, yet time consuming (Trentham & Dunal, 2009). The findings from these two studies suggest that clinicians generally felt that goal setting takes more time than is available to them.

Four papers were found that described environmental influences on goal setting in rehabilitation. These include a review paper regarding the effect of environmental context (setting) on occupational therapy assessment and intervention (Bottari, Dutil, Dassa, & Rainville, 2006), a paper on occupational problem identification in older adults (Trentham & Dunal, 2009) and two intervention studies of goal setting in stroke populations (Doig, Fleming, Cornwall, & Kuipers,
2011; Van Koch & Wottrich, 1998). None of these studies, however, explicitly evaluated the environment as a possible facilitator in goal setting.

Bottari & colleagues (2006) wrote a review paper that examined the issue of context with respect to assessment environment. They concluded that level of independence might vary as a result of the environment in which an assessment takes place. As goal setting typically occurs as part of, or immediately following assessment, their finding suggests that the setting in which goal setting takes place, may influence this process. However, their paper did not include any papers where goal setting was explicitly reported to be part of the assessment.

How environmental context affected stroke rehabilitation was examined by Van Koch & Wottrich (1998) using qualitative case study methods and observing therapy sessions in home and hospital settings. They found that clients and therapists take on different roles in each location. In hospital settings, clients’ roles were described as laymen or students, while therapists functioned as experts or teachers. Clients were found to be passive and did not express their goals spontaneously or take initiative. Treatment was directed at the level of impairment rather than task oriented, and therapists did not actively seek client’s participation in goal setting. These findings are in agreement with those of Dunal and Trentham (2009), that hospital settings limit clients’ expectations and are generally not as motivating as the home environment.

In contrast, in the home setting, Van Koch & Wottrich (1998) found that there was an expanded set of roles for both the therapists and clients. Here, clients were the ‘host’. They demonstrated more initiative and confidence and assumed more responsibility. The therapist engaged in more active listening, and actively assumed the role of guest in addition to roles such as teacher and expert. The patient also assumed the role of teacher or expert as they typically explained how they usually performed activities. The authors concluded that the hospital environment was largely disempowering for patients (Van Koch & Wottrich, 1998). Their findings are consistent with Townsend (1998) and Jones & Mandy (2000) who also asserted that the health care system disempowers clients.

More recently, a qualitative study examined the experiences of 12 brain injury survivors in a goal directed community-based intervention (Doig et al., 2011). These researchers found that familiar
environmental context (e.g., home), enhanced participants’ self-awareness and led to the development of more realistic goals over time (Doig et al., 2011).

Although the research regarding how environmental context may affect goal setting is limited, findings to date suggest that goal setting may be more efficiently and effectively done in the home environment. The home environment appears to improve self-confidence, which in turn improves participant engagement in problem identification. However, there are no studies to date that have specifically explored how the context of the environment influences goal setting in brain injury rehabilitation. Specifically, there are no studies that explicitly examine how the organization or healthcare facility where practice takes place shapes the goal setting process.

2.3.3 Person Influences

In contrast to environmental influences, factors in the client-therapist relationship, as well as those specific to the therapist and client have been investigated in relation to goal setting. Factors specific to the participant included impairments, affect, self-efficacy, knowledge and previous experience. Clinicians’ influences were reported to be experience, and use of directive questioning. However, the extent of clinicians’ influence on goal setting remains largely unstudied.

2.3.3.1 Clinician-Participant Relationship

The relationship between clinician and the rehabilitation participant has been studied by analyzing communication during goal setting (Barnard et al., 2010; Parry, 2004; Schoeb, 2009). Conversation analysis studies that have examined communication between physiotherapists and their clients during goal setting have reported this relationship as asymmetrical, that the clinician is considered to be the “expert” and that this limits goal setting (Parry 2004, 2005). Participants, who may be recently diagnosed, look to the clinician for direction and may also be reluctant to share information that may be relevant for goal setting (Parry, 2004). Clinicians were found to be reluctant to focus on the client’s “problems” due to the negative nature of this discussion (Parry, 2004). Parry concluded that this reticence, combined with their expertise and time constraints, may lead therapists to state the goals for the participant, with the participant simply acknowledging their agreement.
Schoeb’s (2009) findings from a conversation analysis study of goal setting with physically impaired clients extend those of Parry’s by identifying four distinct phases of conversation during goal setting in rehabilitation: eliciting patient’s expectations; introduction of goal setting; goal formulation and closing of goal setting activity. During this process Schoeb identified two types of interactions. 

*Therapist led interactions* were found to be “paternalistic” in nature and based on the assumptions of what might be suitable for the patient. *Collaborative interactions* in which goals were formulated together with the patient were found to be effortful and time consuming.

Barnard and colleagues (2010) examined these interactions by analyzing conversations between patients and their health care team in goal setting meetings in a short-stay neurorehabilitation unit. They reported that there was rarely a straightforward translation of the patient’s wishes into agreed upon goals. Further, they found that the treatment team really sets the goals and while the patient’s input is to guide the area of interest.

An earlier study by Davis and colleagues (1992) identified that clients have been found to talk about goals related to a particular professional’s area of expertise or interest. The authors suggested that the background of the interviewing clinician played a role in the type of goals that clients’ self-identified. As such, they recommended structured or semi-structured approaches to goal setting to limit this bias (Davis et al., 1992).

In summary, the clinician-client relationship during goal setting appears to be largely asymmetrical with the clinician in an expert role. Clients seem to follow the guidance of their therapist during goal setting. This results in goals that are largely clinician driven and may not be reflective of the client’s perspective.

### 2.3.3.2 Participant Influences

Literature that described participant influences on goal setting addressed several concepts. Cognition, affect and emotion, self-awareness, self-efficacy and pre-existing knowledge about goal setting have all been recognized as having influence on goal setting in rehabilitation.
2.3.3.2.1  Cognitive & Affective Influences

The ability to set goals is inherent in conscious, goal directed behaviour (Duncan, 1986). Individuals with cognitive impairments due to ABI have difficulty with this process due to lack of awareness, limited attention, memory deficits, and executive dysfunction. All of these can make goal setting an even more difficult and lengthy process (Ertzgaard et al., 2011). While these impairments are presumed to prohibit goal setting, there are no studies that compare goal setting with cognitively impaired and cognitively intact clients.

However, studies that describe clinicians’ reflections from their experiences with interviewing clients with brain injury (Paterson & Scott-Findlay, 2002) and using standard goal assessment tools (Ertzgaard et al., 2011) offer some insights. Paterson and Scott-Findlay (2002) documented how clients’ cognitive impairments affected their participation in interviewing during a study on rehabilitation resource allocation. Impairments such as poor recall and intolerance to stimuli were reported to result in concrete or limited responses, distraction, and reduced affect. Discrepancies between the reports of the client and their caregiver were also attributed to the clients’ cognitive impairments. In a review paper about how to use a standard goal setting tool (Goal Attainment Scaling) with clients with brain injury, Ertzgaard & colleagues (2011) recognized that goal setting with cognitively impaired individuals can be problematic as clinicians have been reported to make assumptions about client goals due to their lack of insight, decreased attention and poor memory.

McGrath and Adams (1999) found that use of goal setting reduced anxiety and emotional distress in an observational study of 82 patients with ABI. The authors surmised that the reduction in these emotional factors led to increased participation and engagement in rehabilitation. However, the extent to which these participants engaged in goal setting (e.g., self-set or clinician set) was not clear.

Ponte-Allan & Giles (1998) hypothesized that functional, independence-focused goal statements by patients on admission to inpatient rehabilitation following stroke would be associated with better discharge outcomes. While their data supported this hypothesis, they surmised that individuals who made more functional goal statements were more likely to be cognitively intact
and possess greater self-efficacy or locus of control than those who made less functional goal statements.

2.3.3.2.2 Self-Awareness & Self-Efficacy

Self-efficacy and self-awareness are thought to play a role in goal setting. Self-efficacy is described as belief in one’s own capabilities for accomplishing a particular task (Bandura, 1991). Self-awareness is a complex construct but generally thought to be the recognition and understanding of one’s own strengths and weaknesses including physical, neurological or psychological impairments (Gillen, 2009). Locke and Latham (2013), citing evidence from hundreds of empirical studies across many fields of literature, reported that success in goal achievements increases self-efficacy, leading to more ambitious goal setting in the future. Conversely, failure to achieve a goal, leads to decreased self-efficacy and goal abandonment (Bandura, 1991; Locke & Latham, 2013).

One of the key problems cited in goal setting practice in the ABI population is these individuals’ lack of self-awareness (Ownsworth, Fleming, Desbois, Strong, & Kuipers, 2006; Paterson & Scott-Findlay, 2002). Clinicians have reported that newly diagnosed participants often do not know what they might have problems with, and as such are not aware of what they can and cannot do. Level of awareness appears to have an impact on the ability to set realistic goals and result in a longer rehabilitation process for individuals with ABI (Fischer, Gauggel, Trexler, 2004).

Gauggel and colleagues (2002) postulated that individuals with brain injury who have more intact self-observation and awareness would be able to set more realistic goals. They investigated the effect of goal difficulty and goal origin (self-set vs. assigned) on performance in individuals with brain injury using an arithmetic task. Performance in three conditions was measured: group 1 self-set performance goals by making predictions based on past performance; group 2 was assigned a difficult goal and group 3 was told to “do your best”. The authors hypothesized that group 2 would do best assuming that self-set goals are less challenging. They also hypothesized that there would be a great discrepancy between group 1’s self-set goals and performance, assuming that individuals with brain injury tend to set high or unrealistic goals.
Their results confirmed that assigned, specific goals lead to better performance than self-set or easy goals. However, they were surprised to find that the self-set goals were realistic and that those with more intact self-observation set more realistic goals. This study did not account for the effects of motivation as goals were related to a novel task that was not necessarily of interest or day-to-day relevance to the patient. They concluded that individuals with brain injury were able to self-set realistic goals. These authors suggest that self-observation plays an important role in the setting of realistic goals. Individuals with self-awareness deficits due to brain injury were able to do so by paying careful attention to their task performance. Whether these results translate to real-world tasks is unknown.

Bergquist and Jacket (1993) studied self-awareness in individuals with ABI. Their findings led them to suggest that well meaning “directive” therapists provide structure in goal setting which tends to lead them to develop goals with their client that encourage dependence. They argued that engaging the client in the goal setting exercise is an intervention that enables the client to develop self-awareness which is crucial to goal setting in the real world.

Clients who have impairments in self-awareness can benefit from being included in the goal setting process. However, there is little evidence to aid our understanding of how clinicians can support the inclusion of these clients in goal setting in real-world rehabilitation settings.

2.3.3.2.3 Previous experience & knowledge

The client’s prior knowledge and experiences have been written about with respect to goal setting. The client’s knowledge about rehabilitation, their understanding of their diagnosis, and their previous knowledge and experience with goals and goal setting is thought to influence the goal setting process.

Rehabilitation is a largely new situation for many individuals and thus the concept of setting rehabilitation goals may be unfamiliar. Normally, in day-to-day goal directed behaviour, goal setting occurs automatically for many routine tasks (Duncan, 1986). In new, unfamiliar, or more complex situations, goal directed behaviour requires more effortful, conscious processing (Hart & Evans, 2006). Due to this unfamiliarity, goal setting in rehabilitation may be considerably challenging for individuals with ABI.
Clients’ lack of knowledge of their condition has been implicated as contributing to the complexity of goal setting. Participants may not have sufficient understanding of the scope and prognosis of their impairments to enable them to form realistic rehabilitation goals (Parry, 2004; Van De Weyer et al., 2010). They may also lack the knowledge to identify their problems in order to assist them in goal setting (Parry, 2004).

Other factors thought to influence goal setting are the patient’s previous experience, including experience with goal setting (Siegert et al., 2004), their expectations and beliefs about their influence on goal setting or the course of their illness (Van De Weyer et al., 2010). A qualitative study (Laver, Halbert, Stewart, & Crotty, 2010) found that throughout time (acute, sub acute rehabilitation, and six months post discharge) individuals post stroke had difficulty understanding goal terminology. Patients tended to set broad, rather than specific goals in rehab and sub acute recovery phases. In acute care, some patients did not feel ready to participate in goal setting. Results were inconsistent as to the best time to participate in goal setting. These authors advocate for the use of models that promote “healthy literacy” or education for patients about recovery goals. Doig and colleagues’ (2011) qualitative research on goal directed therapy found that familiarity with the concept of goals and goal setting was helpful in the goal setting process. In addition, they found that goal setting was facilitated when the planning process was clearly explained to participants and their significant others.

There is some research that suggests prior knowledge and understanding about their condition is helpful. However, there are no studies that explicitly evaluate the impact of prior knowledge and experiences with goal setting on the ease of the goal setting process in rehabilitation.

### 2.3.3.3 Clinician Influences

Three studies were identified that provide some insight about how clinician factors influence goal setting. These studies used qualitative methods to explore and understand clinicians’ perspectives about identifying occupational performance issues in older adults (Trentham & Dunal, 2009), how nurses encouraged clients’ participation in therapy (Larson Lund, Tamm, & Branholmm, 2001), and professionals’ perspectives about goal setting in neurorehabilitation (Van De Weyer et al. 2010). They also provide some insights about facilitating goal setting.
Trentham and Dunal (2009) explored the occupational therapist’s role in the identification of occupational performance issues (OPI) with older adults. Their results provide some understanding about clinician influences on facilitating goal setting. OPIs were defined as actual or potential problems in an individual’s ability to perform meaningful occupations. Ten therapist participants who worked in geriatric settings took part in focus groups and one-on-one interviews about their experiences. Occupational therapists who worked solely with clients with cognitive impairments were excluded. Their findings indicated that therapists used a variety of strategies to identify OPIs including observation, interviewing and building trust and rapport with the client. They identified that using a directive questioning style was important with the geriatric rehabilitation clientele and that OPI identification “often took place during the “doing of an activity” (Trentham & Dunal, 2009 pp. 330).

Another study (Larson Lund et al., 2001) sought to understand how nurses and occupational therapists encouraged their client’s participation in therapy. Clients had multiple diagnoses and were inpatients engaged in therapy in acute care and rehabilitation settings. The authors identified two categories that described how these clinicians influenced participation in rehabilitation: information providers and rehabilitation practitioners. Information providers were found to advise the client of their rehabilitation program after they (the clinician) had planned it. Strategies used by these clinicians were influenced by the context of their workplace. In contrast, rehabilitation practitioners reported that they included the client from the beginning in goal setting and treatment planning. Among their findings was that effective goal setting required skilled communication and active listening on the part of the clinician.

Van De Weyer and colleagues (2010) explored rehabilitation professional’s perspectives about goal setting on a neurorehabilitation unit. Using a qualitative approach, clinicians participated in focus groups about two different goal-setting methods used on the unit. The two different types of goal setting were usual practice and increased client participation. They found that rehabilitation staff reported feeling less confident about managing what might be perceived as ‘unrealistic’ goals expressed by the client in the increased participation method. Limited professional experience with goal setting and in particular, the issue of clinicians’ perceptions
about the realism of their clients’ goals was thought to contribute to this lack of confidence. The authors speculated that clinicians need considerable support from an organization perspective (e.g., planning and preparation time, staff education) if they are to facilitate client-centred goal setting.

In summary, while there is some research that identified how client characteristics and the client-therapist relationship affect goal setting, there is less evidence to support our understanding about how clinician’s may influence this process in ABI rehabilitation. Research with occupational therapists working with geriatric clientele offer some insights (Trentham & Dunal, 2009). The issue of organizational influences on how clinicians facilitated client participation in goal setting was raised in all three papers and requires further exploration. A better understanding is needed about how clinician factors influence goal setting with individuals with ABI and how the clinician is influenced by contextual factors within their work place.

2.4 Facilitating Goal setting

This section explores what is known about facilitating goal setting in rehabilitation and builds upon what was reported in the previous section about clinician influences on goals setting. As seen earlier in this chapter, there is emerging evidence to support that the client’s participation in goal setting leads to better outcomes. However, numerous studies, reviews and reports have found that including the client in goal setting in rehabilitation is a complex, effortful process (e.g., Playford et al., 2009; Parry, 2004; Sugavanam et al., 2013). As decreasing this effort may result in less patient involvement in goal setting (Schoeb, 2009), understanding how to facilitate clients’ participation is important to enabling their engagement in this process.

2.4.1 The goal setting interview

Literature about facilitating goal setting in rehabilitation has largely focused on the interview process and structure. As interviewing individuals with ABI can pose unique challenges due to cognitive and communication impairments (Paterson & Scott-Findlay, 2002), different facilitative strategies have been proposed. Use of semi-structured interviews, specific interview techniques, and goal classification frameworks to guide the interview have been suggested as possible ways to facilitate goal setting.
While interviews have been recognized as a commonly used method in goal setting, challenges to this method have also been described. In a qualitative investigation of goal setting in mental health rehabilitation, Sumison (2004) reported that the goal-setting process is a partnership that begins in the initial interview when the client is encouraged to identify their areas of concern. However, she found that including the client in this process was difficult for clinicians. As a result of these difficulties, other researchers have proposed structured and semi-structured interviews and classification frameworks to guide the interviewer to identify problems, and promote client participation (Lohmann, Decker, Muller, Strobl, & Grill, 2011; Melville, Baltic, Bettcher, & Nelson, 2002; Phipps & Richardson, 2007; Turner, Ownsworth, Turpin, Fleming, & Griffin, 2008). Structured and semi-structured interviews and outcome measures such as the Canadian Occupational Performance Measure (COPM) (Law et al., 1994), Self-Identified Goals Assessment (SIGA) (Melville et al., 2002), Metaphoric Identity Mapping, (Ylvisaker & Feeney, 2008) and Motivational Interviewing (Medley & Powell, 2010) have been used to facilitate initial goal setting with individuals with brain injury.

The COPM, in particular, has been shown to be an effective tool in assisting clients with neurological impairments, including ABI, to establish functional goals (Dawson et al., 2009; McColl et al. 2006; Phipps & Richardson, 2007; Trombly, Radomski, Trexel, & Burnet-Smith, 2002). The COPM is an outcome measurement tool that consists of a semi-structured interview that enables clinicians to identify problems in occupational performance and to measure change in clients’ self-reported performance and satisfaction in the identified occupational performance issues. Considerable data exists regarding reliability and validity of the tool (McColl et al., 2006).

However, clinical implementation has been reported to be difficult due to challenges such as time constraints, the client’s cognitive or communication impairments, and difficulty applying client-centred approaches. The use of the COPM requires an understanding of client-centred practice (McColl et al., 2006). In many rehabilitation populations including ABI, clinicians continue to struggle with how to enable maximal client participation in goal setting within a client-centred approach, despite considerable training in theoretical underpinnings (Barnard, 2010). In an empirical study using the COPM with individuals with ABI (traumatic brain injury
and stroke), it took an average of twenty-six minutes to administer this assessment (Phipps & Richardson, 2007). However the authors admit that their population did not have significant cognitive problems.

Motivational Interviewing (MI) is another facilitative technique that has shown promise for facilitating goal setting with individuals with ABI (Medley & Powell, 2010). It has been useful in promoting engagement in rehabilitation by connecting the apparent discrepancies between priorities of clinicians and clients (Medley & Powell, 2010; Van den Broek, 2005). Motivational Interviewing is based on a client-centered framework, and is thought to facilitate goal setting by enhancing the development of self-awareness through a collaborative partnership between the client and clinician (Medley & Powell, 2010; Van den Broek, 2005). Guiding principles, such as supporting independence and self-efficacy through skillful interviewing, and core skills such as reflective listening, are used to elicit information that will allow an understanding of the client’s perspective and enable the individual to set goals and formulate plans to achieve those goals (Medley & Powell, 2010). However, little is known about what actually happens during goal setting using a semi-structured interview between the cognitively impaired client and clinician. For example, how does the interview process affect goal identification? Does the clinician provide leading questions that influence the client to identify specific goals? Are these clients able to identify functional problems without prompting? Are there types of communication patterns that facilitate or inhibit client responses? Is there evidence of client self-reflection or self-awareness?

At present, there is little evidence to support (or refute) suggested facilitative techniques such as the use of semi-structured interviews with individuals who are cognitively impaired. To learn more about how best to facilitate goal setting in this unique population, it is important to examine this process in more detail.

2.4.2 Facilitation techniques

Other researchers have identified specific communication techniques that have been useful for facilitating goal setting with individuals with ABI. Giving the client time, broad information
gathering, using specific language or asking particular questions, giving examples to clients, and providing the client and their family with education are examples of other facilitation techniques.

Lawler and colleagues (1999) qualitatively examined goal setting using semi-structured interviews with stroke clients. They identified stages of goal setting (identification of problems, developing goals from problems, progressing toward goal achievement) and reported that it was important to give patients time to identify problems for themselves. The professionals, who in this study were nurses, suggested that problem identification required broad information gathering and that this was not an easy process with this population, but was required to understand the patient perspective. They also reported that the use of familiar language to discuss goals (e.g., referring to goals as “hopes”, or “expectations”) was helpful in facilitating dialogue between clients with stroke and their nurses. Providing examples of goals to the client was identified as another helpful strategy to facilitate goal identification (Wressle, Eeg-Olofsson, Marcusson, & Henriksson, 2002).

Another study examined goal identification and improvement in overall function in post acute geriatric rehabilitation (Kus et al., 2011). Trained interviewers used a semi-structured questionnaire to identify patient goals and to assess improvement. Patients were found to identify ‘general’ goals, and the therapist’s role was to help them to be more specific or to “deconstruct” them in a way that they could be addressed in rehabilitation. Unfortunately, these studies have largely excluded individuals with cognitive impairment.

Other strategies to facilitate goal setting include providing the client and their family with education and information. Results from Rosewilliam and colleagues’ (2011) systematic review of client-centred goal setting in stroke rehabilitation indicated that client and family education regarding pathology, rehabilitation process, and goal setting were important facilitators. Other studies in rehabilitation have agreed with this conclusion (Collins et al., 1999; Laver et al., 2011). In their work with adults with mental health concerns, Collins and colleagues (1999) found that greater exposure to information about goal setting contributed to better specificity in goal setting. Laver and colleagues (2011) reported that improving “health literacy” was an important way to facilitate goal setting. This included education about their medical condition, terminology, recovery, and the rehabilitation and goal setting processes.
2.4.3 Measurement

Goal Attainment Scaling has been found to be a reliable, valid measure of goal setting in physical rehabilitation and neurorehabilitation settings (Hurn, Kneebone, & Cropley, 2006; Malec, 1999). However, research regarding its use with cognitively impaired populations is lacking due to assumed limitations with this population (Ertzgaard et al., 2011). These assumptions include that lack of insight will lead to unrealistic goals, that decreased attention, memory etc. will make the goal setting process lengthy and be problematic with self-ratings.

In sum, it is evident that the therapist has a key role in facilitating goal setting through initial interviews. Semi-structured interviews, education and using familiar language to help guide the process have been identified. There is concern, however, that clinicians may not be participating fully in client centred practice as reflected in reported limitations in the client’s participation in goal setting. While motivational interviewing shows promise for use with individuals with ABI, many questions remain unanswered. For example, what is going on during the semi-structured goal setting session that is contributing toward reported practice difficulties and subsequently what factors are useful in facilitating client centred goal setting? Further, exploration is needed to clarify where the problem lies: with the therapist, the client population or the organization?

2.5 Goal setting: What’s next?

Goal setting with individuals with ABI is clearly a complex process for multiple reasons. These individuals frequently lack awareness, have limited attention, and memory deficits that may make goal setting an even more difficult and lengthy process (Ertzgaard et al., 2011; Hart & Evans, 2006). Clinicians may also make assumptions about the client’s potential to engage in goal setting, assuming that lack of insight or awareness impairs the ability to set realistic goals (Ertzgaard et al., 2011). They may privilege some goals over others (Levack et al, 2006a). Consequently, research in goal setting has largely ignored or excluded cognitively impaired populations and their participation in clinical goal setting is often ignored or marginalized.

While there is general agreement that use of goals in rehabilitation is important in client-centred approaches and results in improved outcomes, little is known about how to best facilitate this process with individuals with cognitive impairments due to ABI.
There have been many suggestions in the literature as to how to facilitate goal setting in rehabilitation but there are few studies that evaluate their efficacy. Relatively little is known about what the clinician says or does that actually facilitates goal setting. While attention has been given to the interview process there is little evidence to support the use of one technique over another (e.g., structured versus semi-structured or unstructured interview) or what clinicians may say that facilitates client participation.

There is evidence to suggest that context may play a role in goal setting but this has not been specifically examined within ABI rehabilitation. Several studies reported that the workplace or organization factors were thought to influence clinical goal setting practice but this has not been studied extensively so our current understanding is limited. Time constraints are frequently cited as a barrier to the inclusion of the participant in goal setting within the rehabilitation research (e.g. Leach, 2010). Why this occurs is generally unclear, with the exception of the identification by Levack and colleagues (2006a; 2006b; 2011) that facility constraints may prevent the clinician from spending the time required to develop rapport with, and gather information from, the client.

Finally, there is a lack of information regarding what the process of client-centred goal setting with the individual with ABI entails and what specifically facilitates this process. A better understanding about how occupational therapists can facilitate participation in goal setting with the client with cognitive impairments following brain injury and how contextual factors shape this process is needed. The following sections describe the specific gaps in the literature that this dissertation aims to address.

2.5.1 How does clinician communication facilitate goal setting with cognitively impaired individuals during the goal setting interview?

Goal setting requires active communication between the clinician and client. Previous literature has found that considerable skill is needed by the clinician in this process. Sumison (2004) suggests that client-centered practice begins with the initial interview. This appears to be a good place to begin to characterize how therapists facilitate goal setting with individuals with ABI.

It is not clear whether motivational interviewing skills are being employed in goal setting
interviews using the COPM and if so, are these techniques facilitative? Further study of the impact of motivational interviewing, and goal setting in the ABI population is warranted due to the potential facilitative nature of the technique.

2.5.2 How does use of a semi-structured interview facilitate goal setting?

Many authors have suggested the use of semi-structured interviews to facilitate goal setting. However there is limited evidence that supports or refutes this recommendation. While Parry’s work has provided some initial insights, there is little is known about what happens during goal setting using a semi-structured interview between the individual with ABI and the clinician. For example, how does the interview process affect goal identification? Does the clinician provide leading questions or prompts that influence the client to identify specific goals? Are these clients able to identify functional problems without prompting? Are there types of communication patterns that facilitate or inhibit client responses (e.g., Motivational Interviewing)? Is there evidence of client self-reflection or self-awareness? At present, there is little evidence to support (or refute) suggested facilitative techniques such as the use of semi-structured interviews with individuals who are cognitively impaired. To learn more about how facilitate goal setting in this unique population, it is important to examine this initial interview process in more detail.

2.5.3 How does context affect goal identification?

There is research that suggests that context may play a role in goal directed therapy and goal setting (Bottari et al., 2006; Trentham & Dunal, 2009). However there is no research that directly explores the impact of the environment, and specifically, the organization within which goal setting takes place, on the ease of the goal setting process. For example, does a familiar environment trigger self-observation and self-awareness leading to more efficient goal identification as measured by the clinician’s evaluation and time constraints? The context in which goal setting occurs may impact the extent of an individual’s ability to participate or clinicians’ ability to facilitate this process. There has been no research to date that specifically addresses how environmental context (e.g., workplace organization) influences occupational therapist’s goal setting practices in ABI rehabilitation.
2.5.4 How do occupational therapists facilitate goal setting with individuals with cognitive impairment due to acquired brain injury?

Studies to date have sought the perspectives of clinicians from multiple backgrounds, or examined single professions (e.g., physiotherapy, nursing). One study was found that addressed the goal setting perspectives of occupational therapists albeit in mental health rehabilitation (Sumison, 2004). As such there are no studies that explicitly represent the perspectives of occupational therapists in goal setting in brain injury rehabilitation. Occupational therapists have considerable training in client-centred philosophy and practice. Examining how one profession (occupational therapists) with the same philosophical background facilitates client-centred goal setting in an ABI practice may be helpful in further delineating goal setting processes and facilitative techniques, and overcoming implementation challenges.

2.6 Conclusion

This review of the literature has shown that the use of client-driven goals, and client’s active participation in goal setting contributes to better outcomes. However, there is evidence that clinicians are reluctant to involve the individual with ABI in collaborative goal setting due to limited understanding of how best to facilitate this process, and an assumption that these clients may lack the ability to participate in goal setting due to their impairments. Many suggestions have been made as to how to facilitate goal setting, however, there is little evidence supporting or refuting these ideas. Numerous gaps in the literature were identified including a lack of understanding about how clinician-client communication may facilitate goal setting and how contextual factors, specifically the workplace organization, influence goal setting. Although there is some evidence about how clinicians facilitate goal setting in general, it is not clear how occupational therapists, whose profession has client-centred beliefs and values at its core, do this specifically with individuals with ABI.

This doctoral research project aims to address these gaps and to further elucidate factors that facilitate and hinder goal setting by studying how occupational therapists facilitate goal setting with their clients with cognitive impairments due to brain injury. This work is grounded in a client-centred framework (Townsend, 1997; Restall et al., 2003). Globally, how occupational
therapists facilitate goal setting in brain injury rehabilitation and more specifically, how clinician communication facilitates or hinders goal setting with these clients will be addressed. How contextual factors (i.e. organization/workplace factors) influence clinician’s goal setting practices will also be examined.
Chapter 3

3  Communication during goal setting in acquired brain injury: what helps and what hinders?

A version of this manuscript that has been submitted to the *British Journal of Occupational Therapy*.

3.1 Abstract

**Purpose.** To explore communication during goal setting between occupational therapists and individuals with cognitive impairment due to brain injury, with an aim of understanding conversational behaviours that facilitate and hinder this process.

**Method.** This exploratory study used a conversation analysis inspired approach and descriptive statistics to analyze videotaped goal setting sessions. Sequences of dialogue leading to, and distracting from problem identification, the first step in goal setting, were identified and analyzed. Specific therapist behaviours that facilitated or hindered problem identification were subsequently identified.

**Results.** Acknowledgments and affirmations (38%), open-ended questions about specific tasks (38%) and reflective listening (24%), were found to lead to problem identification by the client (facilitators). Instances of disconnections (hindrances) were characterized by abrupt topic shifts (21%), lack of acknowledgment (21%), or failure to explore (15%) client responses and not waiting for client verification (12%).

**Conclusions.** Clinicians should consider their language use during goal setting interviews and aim to utilize conversational behaviours that are facilitative whilst minimizing those that distract to optimize their client’s engagement during the problem identification phase of goal setting.
3.2 Introduction

Foundational to client centred practice is inclusion of the client in setting his or her own rehabilitation goals (Townsend, 1997). However, this process is perceived to be more complex and challenging when the client has cognitive impairments following brain injury (Rosewilliam et al., 2011). Clinicians are reported to view lack of awareness, memory and attention deficits, and executive dysfunction as hindrances to a brain-injured person’s ability to engage in setting realistic rehabilitation goals (Fischer et al., 2004; Kus, et al., 2011; Rosewilliam et al., 2011). As a result, these individuals often have less input into goal setting and subsequently, their rehabilitation goals reflect team or clinician priorities rather than their own (Rosewilliam et al., 2011). Since emerging evidence suggests that the use of client driven goals is associated with better rehabilitation outcomes, it is important to determine how to maximize client participation in goal setting (Dalton et al., 2011; Gauggel et al., 2002; Holliday et al., 2007; Kus et al., 2011; Ponte-Allen & Giles, 1998; Webb & Glueckauf, 1994). To date, those with moderate to severe cognitive impairment have been largely excluded from research about client driven goal setting, resulting in a lack of knowledge about how to optimize their participation. Establishing what clinicians say that facilitates or hinders goal setting is one way to inform practice.

In-depth analysis of communication interactions between rehabilitation professionals and their clients during goal setting, has improved our understanding of how decisions are made and how goals are formulated (Barnard et al., 2010; Parry, 2004; Schoeb, 2009). In conversation analytic studies examining interactions between physiotherapists and orthopaedic patients, therapists were found to use increasingly constraining questions to identify patient problems (Parry, 2004), interactions were primarily therapist led, and goals were determined based on decision making dominated by therapists (Parry, 2004; Schoeb, 2009). Barnard and colleagues (2010) extended this research to goal setting in neurorehabilitation using similar methods (e.g., conversation analysis) to examine communication during team goal setting. Notably, they found that minimal responses by patients were typical, but nonetheless important, as they led to more dialogue, with the treatment team. Understanding how therapists facilitate more dialogue is of importance in optimizing client participation in goal setting.
Structured and semi-structured interviews have been found to be a useful way to identify problems, the first step in goal setting (Lawler et al., 1999), and promote client participation (Law et al., 1998; Melville et al., 2002; Ylvisaker et al., 2008). The Canadian Occupational Performance Measure (COPM) (Law et al., 1998) is an outcome measure that consists of a semi-structured interview and has been used with individuals with brain injury to identify problems in everyday living. However, therapists report difficulty using the COPM clinically due to perceived challenges such as time constraints, and client’s cognitive or communication impairments (Phipps & Richardson, 2007). How therapists and clients communicate while engaged in these types of goal setting interviews has not been studied with the brain injury population. Understanding these interactions may enable therapists to improve facilitation of client participation in goal setting in challenging populations.

The purpose of this study, therefore, was to explore the communication between occupational therapists and individuals with moderate to severe cognitive impairment due to traumatic brain injury during goal setting interviews. More specifically, our aim was to understand how therapist communication facilitated or hindered problem identification, the initial step in the goal setting process.

3.3 Methods

This was a preliminary descriptive study, influenced by tenets of conversation analysis, (Drew et al., 2001; tenHave, 2007) that analyzed pre-existing videotapes of goal setting sessions between occupational therapists (‘therapists’) and individuals with moderate to severe cognitive impairment due to traumatic brain injury (‘clients’). Our approach to data collection and analysis was guided by select aspects of applied conversation analysis, but did not strictly adhere to the rigorous pragmatics of this technique due to data and resource constraints (e.g., therapists were not observable on the videos; detailed transcriptions were not available). We also used descriptive statistics to characterize identified conversational practices.

Ethics approval was granted from the Baycrest and University of Toronto Research Ethics Boards. All participants provided informed, written consent for use of the videotapes for research purposes.
Videotapes of initial goal setting sessions between occupational therapists and individuals with traumatic brain injury were collected during previous research in which the goal setting session was a prerequisite for participation in a metacognitive strategy training intervention (Dawson et al., 2009; Dawson et al., 2013; Ng, Polatajko, Marziali, Hunt & Dawson, 2013). The Canadian Occupational Performance Measure, (COPM) (Law et al., 1998) a semi-structured outcome measure, was used to facilitate goal setting in all sessions. The session was the first meeting between the therapist and client and took place in an interview room in the research wing of a hospital. A digital video camera was set up on a tripod in the room and was turned on at the start of the session by the therapists after client consent was obtained.

The six clients ranged in age from 24-55 years (mean=38.5; SD=12.6) and had experienced a moderate or severe traumatic brain injury from 4-30 years (mean=14.5; SD=9.6) prior to their participation in the original studies. Two clients were female and four were male. All had completed high school and two had completed post secondary education. At the time of the interviews, all clients demonstrated evidence of moderate to severe cognitive impairments on standardized neuropsychological tests, were conversationally fluent in English, were living with family members or another support person and reported functional difficulties in day-to-day life.

The therapists were three female occupational therapists, each with more than 10 years of clinical experience working with individuals with cognitive impairment following traumatic brain injury. All were experienced in the administration of the COPM and were employed as research clinicians or were graduate students at the time of the original studies.

Data collection began with the selection of videotapes for analysis. From the data bank of 13 videotaped interviews, eight had been conducted by OT1, two by OT2 and three by OT3. To ensure equal representation, two sessions from each therapist were selected. Videotapes for OT1 and OT3 were selected consecutively beginning with the earliest (according to date) recorded interview amenable to transcription. One session, from OT1 was not easily transcribed due to poor audibility and was not used. The decision regarding amenability for transcription was made in conjunction with the transcriptionist and was not influenced by the content of the interview, its length, nor the type of goals. The selected interviews were transcribed verbatim, along with notations for conventions such as pauses greater than one second and utterances that occurred...
simultaneously or were overlapping (ten Have, 2007). The final data set included six interview transcriptions, each with a unique therapist-client dyad.

Next, interactions related to problem identification were identified and extracted from transcripts for further analysis. Problem identification was defined as an explicit statement by the client or therapist that identified, confirmed, or clarified, a problem experienced by the client in the performance of their daily-life activities. Working with the conversation analysis principle that interactions are connected in turns and sequences of actions (ten Have, 2007), we identified conversation turns, an expression by one individual and a subsequent response by another, and sequences of turns, relating to problem identification. Cut-off points for turns and sequences were identified by a change in subject in conversation before and after the problem identification statement. Sequences were labeled ‘facilitators’ if the interaction led to problem identification. Interactions where the therapist response did not appear to relate to what the client had said (‘disconnections’) were designated as hindrances. The first author (AH) was responsible for extracting identified sequences from the raw transcriptions. The second author (GLD) and the senior author (DD) examined the extracted sequences to confirm appropriateness of the data as identified according to operational definitions. In total, 21 conversation sequences depicting facilitation and 16 sequences of hindrances were extracted for further analysis.

These “vignettes” were then analyzed further to characterize the facilitators, statements or questions that led directly to problem identification, or hindrances, turns and sequences that detracted from problem identification. Identified facilitators and hindrances were then grouped according to similarities, and subsequent descriptions of themes relating to facilitators and hindrances were developed. Frequencies of facilitators and hindrances were calculated for each therapist to characterize style differences that may have influenced problem identification.

3.4 Results

The results of this preliminary study are organized by first presenting the major themes that emerged that characterize the data. Next, the specific conversational behaviours that comprise each theme are described along with supporting examples from transcription data (for ease of readability, transcription notations have been simplified). Descriptive statistics, operational
definitions of facilitators and hindrances, supporting examples, and therapist utilization frequency data are presented in accompanying tables.

Three themes relating to facilitating problem identification were discovered: *reflective listening*, *open-ended questions about specific tasks*, and *acknowledgements and affirmations*. *Lack of uptake* by the therapist was the single theme that related to hindrances. Each theme encompassed a number of conversational behaviours. Operational definitions of those identified and specific examples of each are found in Table 1.
<table>
<thead>
<tr>
<th>Theme</th>
<th>Conversational Behaviour</th>
<th>Operational Definition</th>
<th>Exemplar</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FACILITATORS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflective Listening</td>
<td>Clarifying question/statement</td>
<td>Therapist seeks to confirm participants report.</td>
<td>T: “So, you don’t feel you are performing your job at the level you should be?”</td>
</tr>
<tr>
<td></td>
<td>Shared thought process</td>
<td>Therapist describes her thought process to client.</td>
<td>T: “So, what I’m writing is…” T: “What I’m trying to figure out is…”</td>
</tr>
<tr>
<td></td>
<td>Summary statement/ reflection</td>
<td>Summary or reflection of participant’s statement(s)</td>
<td>T: “So, working on improving how you schedule yourself.” T: “So, learning how to cook a few more meals.”</td>
</tr>
<tr>
<td></td>
<td>Seeks opinion</td>
<td>Use of open-ended question that seeks the client’s opinion.</td>
<td>T: “How is that working for you?” T: “What do you usually do?” T: “What do you think’s causing that?”</td>
</tr>
<tr>
<td>Acknowledgements &amp; Affirmations</td>
<td>Acknowledgement/ affirmation</td>
<td>Acknowledgement of the client’s response in a neutral or positive manner</td>
<td>T: “OK.” T: “Hmm.”</td>
</tr>
<tr>
<td></td>
<td>Agreement</td>
<td>Explicit agreement with client’s statement</td>
<td>T: “Right.” T: “Absolutely!”</td>
</tr>
<tr>
<td></td>
<td>Open-ended questions-task specific</td>
<td>Use of open-ended question about a specific task</td>
<td>T: “And how have you found driving...?”</td>
</tr>
<tr>
<td><strong>HINDRANCES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abrupt topic change</td>
<td>Therapist changes topic without warning to client.</td>
<td>T: “When is the family reunion?” C: “Next June.” T: “So, you have a year.” C: “Yeah.” T: “So, do you live on your own?”</td>
<td></td>
</tr>
<tr>
<td>Makes assumption</td>
<td>Therapist takes what client says at face value and does not explore client statement further.</td>
<td>T: “So, you have no problem with that.”</td>
<td></td>
</tr>
<tr>
<td>Does not acknowledge</td>
<td>Therapist does not respond to what client says but proceeds with interview.</td>
<td>C: “...I’d like to go back to school to do my Masters...” T: “...And your hobbies? What are your hobbies? What things do you do for recreation?”</td>
<td></td>
</tr>
<tr>
<td>Redirects to another topic/puts topic on hold</td>
<td>Therapist prematurely directs conversation to another topic.</td>
<td>T: “O.K., we’re gonna get to that...let’s talk about...”</td>
<td></td>
</tr>
<tr>
<td>Failure to explore</td>
<td>Therapist acknowledges what client has said but fails to ask additional questions about the topic.</td>
<td>T: “Is there an expectation that you would get your own [car] at some point?” C: “Um, I see, that’s the...truck, really uh, that’s never come up...but, it would be good...but I’m nervous.” T: OK it doesn’t sound like it’s so much of an issue.”</td>
<td></td>
</tr>
<tr>
<td>Differences in ‘naming’ the problem</td>
<td>Therapist and client separately recognize a problem but each call it by another name.</td>
<td>Client identifies problem as ‘problems planning the family reunion’ while therapist refers to it as ‘problems with financial management.’</td>
<td></td>
</tr>
<tr>
<td>Poses question that includes multiple topics</td>
<td>Therapist asks question that includes multiple topics.</td>
<td>T: “So, how do you think you manage at, mmm, caring for yourself, like getting dressed, doing bathing, and doing things like eating and personal hygiene?”</td>
<td></td>
</tr>
<tr>
<td>Does not wait for validation/verification</td>
<td>Therapist acknowledges client response using summary or reflective statements but does not allow time for client to verify/validate that reflection.</td>
<td>T: “Alright...let’s just finish up with...”</td>
<td></td>
</tr>
<tr>
<td>Lack of redirection</td>
<td>Therapist allows several minutes of off topic discourse.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

T=therapist  
C=client
The first theme, ‘reflective listening’, included four conversational behaviours by the therapist: asking clarifying questions, making summary or reflective statements, seeking the client’s opinion and sharing their own thought process. All of these conversational behaviours were observed to prompt clients to make self-reflective statements that in turn, led to them or the therapist to confirm, clarify or identify a specific problem. For example, in the following vignette the therapist (OT3) and client (C) engaged in considerable conversation about self-care activities. The therapist requested clarification that led to problem identification and the client’s explicit goal.

1. OT3: Uh huh. Are (there) components of these tasks that you want to explore and potentially try to do yourself later on or would that be related to things that you want to be able to do?
2. C3: I’d like to do the whole thing all by myself, eventually.
3. OT3: Uh huh? (1.0 sec. pause) The showering, dressing and shaving?
4. C3: Yes, exactly, I want to do all myself eventually.

The conversational behaviours ‘open-ended questions about specific tasks’ used alone and in combination with ‘acknowledgments and affirmations’ facilitated problem identification. When open-ended questions regarding a specific task were asked, clients made self-observations and reflected on previous performance, which subsequently enabled them to self-identify problems. For example, questions such as, “Tell me about how you manage your grocery shopping?” elicited more detailed responses that subsequently led to problem identification than “So, are you able to do your home management activities?” The following vignette displays the use of an open-ended question about a specific task (work), followed by an acknowledgement, and results in problem identification and goal statements. Here, the therapist (OT1) asked the client (C1) to talk about her productivity at work:

1. OT1: OK. So what are you having trouble with (at work)?
2. C1: I’m having trouble...it takes me longer to get something done. I’m working with a really loud guy near me. I can’t concentrate; I can’t focus on getting things done so it takes me twice as long to get something done.
3. OT1: OK.
4. **C1**: I’m good when it comes to getting new clients, I’m good with talking to people, I’m good with all that stuff. Umm...I need to have it more structured. I need to work in a quiet place and I need to have more structure.

5. **OT1**: OK.

Problem identification also was observed when the therapist shared her own thinking with the client. In this next vignette the therapist (OT1) shared with the client (C101) what she was trying to do. After this, the client was able to make an explicit problem identification.

1. **OT1**: What I am trying to tease out is where the problem is.
2. **C101**: OK.
3. **OT1**: And make it a little more specific to what specifically you’re having problems with
4. **C101**: Ok, ok.
5. **OT1**: Because saying you have a problem with your job is pretty, pretty broad so trying to define a little more what the problems, what the problems you’re experiencing are.
6. **C101**: OK.
7. **OT1**: Um ok so tell me you start work...
8. **C101**: OK my problem is basically attention, distraction and being able to focus at work.

Simple ‘acknowledgements and affirmations’ by the therapist also served to elicit problem identification. Examples of these acknowledgments included the therapist stating, “O.K.” or “Hmm, hmm” and “…that must be really hard…” in response to the client’s statements. These acknowledgments and affirmations were typically followed by a brief pause by the therapist. Acknowledgments and affirmations were considered to be facilitators as they were frequently followed by explicit problem statement from the client.

The theme ‘lack of uptake’ identified conversational behaviours that hindered problem identification. These were behaviours in which there was an apparent disconnection between what the client said and how the therapist responded. Lack of uptake refers to the therapist seemingly not fully processing the client’s response in favour of some other internal thought process. Conversational behaviours that exemplified this theme are found in Table 2 and in the
transcription excerpts that follow in the text. At times, therapists appeared to not follow the conversational flow of the client and, abruptly switched the topic without notice to the client. These sudden topic changes resulted in failures to fully explore client statements and/or identified problems, and led the therapist to make incorrect assumptions about client performance. In the following sequence, there is both a failure to follow up on what the client has said and an abrupt topic change:

While explaining his self-care to a therapist, one client stated, “...today, while having my shower, water went everywhere...” to which the therapist responded, “O.K., so do you live on your own?”

In another sequence, the therapist made what turned out to be an incorrect assumption in relation to what the client had stated. The therapist asked the client, “...so what about eating? Do you have any trouble with that?” The participant responded, “No, I eat once or twice a day.” The therapist appeared to accept what the participant had said and continued on to a further area of performance and responded with her assumption, “O.K. So you’re fine with that. What about your mobility?” The therapist appeared to be asking the question about eating, and listening to the response, from the framework of physical ability inferring that because the person is eating that this area of performance is fine, while not attending to the fact that eating once or twice a day is generally not considered adequate. In subsequent sessions, the therapist learned that the client forgot to eat due to her memory impairments which resulted in numerous fainting episodes at work-a significant problem for this client.

In addition to identifying conversational behaviours and related themes, differences among the use of these behaviours by each therapist interviewer were examined. Frequency data on each therapist’s conversational behaviours and summary data are reported in Table 2.
### Table 2 Occurrence & Types of Observed Conversational Behaviours

<table>
<thead>
<tr>
<th>Theme</th>
<th>Conversational Behaviour</th>
<th>Therapist 1 Frequency (proportion)</th>
<th>Therapist 2 Frequency (proportion)</th>
<th>Therapist 3 Frequency (proportion)</th>
<th>Totals Frequency (proportion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL CONVERSATIONAL BEHAVIOURS</td>
<td>85</td>
<td>83</td>
<td>37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PROPORTION FACILITATORS</td>
<td>79/85 (92.9%)</td>
<td>68/83 (81.9%)</td>
<td>25/37 (67.6%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FACILITATORS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Reflective listening</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Clarifying question</td>
<td>8 (10%)</td>
<td>8 (12%)</td>
<td>2 (8%)</td>
<td>18 (11%)</td>
<td></td>
</tr>
<tr>
<td>• Shared thought process</td>
<td>8 (10%)</td>
<td>0</td>
<td>0</td>
<td>8 (4%)</td>
<td></td>
</tr>
<tr>
<td>• Summary statement</td>
<td>8 (10%)</td>
<td>2 (3%)</td>
<td>5 (20%)</td>
<td>15 (9%)</td>
<td></td>
</tr>
<tr>
<td>• Seeks opinion</td>
<td>16 (20%)</td>
<td>17 (25%)</td>
<td>8 (32%)</td>
<td>41 (24%)</td>
<td></td>
</tr>
<tr>
<td>• Affirmation of response</td>
<td>31 (39%)</td>
<td>23 (34%)</td>
<td>5 (20%)</td>
<td>59 (34%)</td>
<td></td>
</tr>
<tr>
<td>• Expression of agreement</td>
<td>2 (2.5%)</td>
<td>3 (4%)</td>
<td>2 (8%)</td>
<td>7 (4%)</td>
<td></td>
</tr>
<tr>
<td>• Open ended questions</td>
<td>6 (7.5%)</td>
<td>15 (22%)</td>
<td>3 (12%)</td>
<td>24 (14%)</td>
<td></td>
</tr>
<tr>
<td><strong>Total Facilitators Identified</strong></td>
<td>79 (100%)</td>
<td>68 (100%)</td>
<td>25 (100%)</td>
<td>172 (100%)</td>
<td></td>
</tr>
<tr>
<td>HINDRANCES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lack of uptake by therapist</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Does not acknowledge</td>
<td>1 (17%)</td>
<td>3 (20%)</td>
<td>3 (25%)</td>
<td>7 (21%)</td>
<td></td>
</tr>
<tr>
<td>• Abrupt topic shift</td>
<td>1 (17%)</td>
<td>2 (13%)</td>
<td>4 (33%)</td>
<td>7 (21%)</td>
<td></td>
</tr>
<tr>
<td>• Redirects to another topic</td>
<td>2 (33%)</td>
<td>1 (6%)</td>
<td>0</td>
<td>3 (9%)</td>
<td></td>
</tr>
<tr>
<td>• Does not redirect off topic discourse</td>
<td>0</td>
<td>0</td>
<td>1 (8%)</td>
<td>1 (3%)</td>
<td></td>
</tr>
<tr>
<td>• Failure to explore</td>
<td>1 (17%)</td>
<td>2 (13%)</td>
<td>2 (17%)</td>
<td>5 (15%)</td>
<td></td>
</tr>
<tr>
<td>• Names the problem differently</td>
<td>1 (17%)</td>
<td>1 (6%)</td>
<td>1 (8%)</td>
<td>3 (9%)</td>
<td></td>
</tr>
<tr>
<td>• Makes assumption</td>
<td>0</td>
<td>2 (13%)</td>
<td>0</td>
<td>2 (6%)</td>
<td></td>
</tr>
<tr>
<td>• Does not wait for client validation</td>
<td>0</td>
<td>4 (27%)</td>
<td>0</td>
<td>4 (12%)</td>
<td></td>
</tr>
<tr>
<td>• Poses question that includes multiple topics</td>
<td>0</td>
<td>0</td>
<td>1 (8%)</td>
<td>1 (3%)</td>
<td></td>
</tr>
<tr>
<td><strong>Total Hindrances Identified</strong></td>
<td>6 (100%)</td>
<td>15 (100%)</td>
<td>12 (100%)</td>
<td>33 (100%)</td>
<td></td>
</tr>
</tbody>
</table>
In the vignettes analyzed, Therapist 1 (OT1) used 85 conversational behaviours, 92.9% of which were facilitators, Therapist 2 (OT2) used 83 conversational behaviours, 81.9% of which were facilitators and Therapist 3 (OT3) used 37 conversational behaviours, 67.6% of which were facilitators. Therapist 1 had experience working in acute care and community rehabilitation. Therapist 2’s clinical experience was in community-based rehabilitation, while Therapist 3 (OT3) had only worked in inpatient rehabilitation. OT2 conducted the shortest interviews (28 and 43 minutes). OT3 conducted the longest (111 and 162 minutes) and OT1’s interviews were in the mid-range (55 and 62 minutes).

There were also individual variations in conversational behaviours between therapists. OT2 was observed to use the highest frequency (15%) of open-ended questions regarding specific tasks and did the least amount of reflective listening (15%). She also conducted the shortest interviews, with problem identification occurring the most quickly. However, OT2 also had the highest frequency (27%) of not waiting for the client’s to verify/validate the therapist’s statements/questions. OT3 requested client opinion more often (32%) and had the lengthiest interviews. OT1 was observed to use the most acknowledgements and affirmations (41.5%) and conducted interviews in the mid time range. The most frequently observed disconnections (i.e. lack of acknowledgement, abrupt topic shifts, failure to fully explore clients’ identified problem were seen across all three therapists.

3.5 Discussion

To the authors’ knowledge, this is the first study that has examined what clinicians say during the goal setting process that facilitates or hinders problem identification in the course of goal setting with clients with moderate to severe cognitive impairment due to traumatic brain injury. Problem identification was facilitated when therapists used reflective listening and asked open-ended questions about specific areas of daily life function (e.g., work, shopping, bathing etc.) and when they acknowledged and affirmed clients’ responses using simple phrases like “o.k.”. In contrast, the lack of uptake, that is disconnections between what the client said and therapists’ response, hindered the identification of problems.
Our finding that reflective listening facilitated problem identification is consistent with other research about goal setting and motivational interviewing. “Active and mindful listening” by the therapist was identified by Bright and colleagues (2012) as being integral in the goal setting process. It also is consistent with the guiding principles of motivational interviewing (MI) which has shown promise in use in goal setting with individuals with traumatic brain injury (Medley & Powell, 2010). MI uses a client–centred framework, and is thought to facilitate goal setting by enhancing the development of self-awareness through a collaborative partnership between client and clinician. Guiding principles, such as supporting self-efficacy through proficient interviewing, and core skills such as reflective listening, are used to elicit information that will allow understanding of the client’s perspective and enable the individual to set goals (Medley & Powell, 2010). In our study, therapists were actively using reflective listening and this was associated with engagement of the participant in self-observation and self-reflection. In addition to the benefits conferred for goal setting, these conversational behaviours also may contribute to development of self-awareness and self-efficacy by enabling the client to self-identify their own functional problems in daily life, rather than being directly told of the existence of a problem by a professional.

Another conversational behaviour that served to elicit client perspective in problem identification was asking open-ended questions about specific tasks. It may be that this type of question elicits problem identification more quickly than other conversational behaviours. This interpretation is supported by the finding that the therapist (OT2) who used this type of question most frequently also conducted the shortest interviews. Another interpretation is that asking open-ended questions about a specific task provides structure for clients that may be of benefit as they become fatigued. This finding builds upon that of Paterson & Scott-Findlay (2002) who found that brain injured participants had difficulty with open-ended questions and particularly as the interview progressed. In our study, the questions that facilitated problem identification were open ended, yet, were focused on a particular task (e.g. “tell me how you are doing at work?”) as opposed to non specific (e.g. “what are you having problems with?”) and may have provided sufficient cues to lead the client to identify a problem. Asking open-ended, but task specific questions, may help to focus attention and hence lessen frustration of the brain-injured individual during the interview, especially as fatigue sets in.
The use of simple acknowledgments and affirmations was found to elicit client engagement in the interview process and also served to encourage self-reflection. These simple phrases (‘O.K.’; ‘hmm, hmm’) may have served as non-judgmental responses that contributed to rapport development between client and therapist, and promoted the client’s self-confidence that subsequently enabled them to share information.

The findings in this study are consistent with other goal setting research that clients require time to engage in the problem identification process (Bright et al., 2012; Holliday et al., 2007; Phipps & Richardson, 2007). While the ideal amount of time required is not known from previous research and was not the focus of this study, our results indicated that the process can take anywhere from thirty minutes to two hours. It may be that acknowledgments and affirmations, which were typically followed by a brief pause in conversation, facilitated problem identification by giving the client more time to process information and to formulate a response. Not giving clients sufficient time may have led to the apparent disconnections in conversation. All the clients in this study were able to identify problems within their interview suggesting that as long as sufficient time and guidance is provided, the client’s perspective can be elicited.

Although the clinicians in this study were experienced in goal setting with clients with brain injury, we saw evidence of lack of uptake in all six interviews. Several possible reasons for this have been identified in previous research. First, even experienced clinicians reported feeling inadequately trained or uncomfortable in collaborative goal setting (Bright et al., 2012; Sumison, 2004). The abrupt topic changes and lack of acknowledgments may represent poor listening by the therapist, a desire to move the interview along as they feel they are unable to address the client’s problem in therapy. This is consistent with Parry’s (2004) research that found that during goal setting sessions, clinicians shifted topics when the client raised a problem that was not likely to be addressed in therapy. This suggests that the therapists may be filtering information and only responding to what the client says that is relevant to the context of a particular therapy. Alternatively, these disconnects may be due to frustrations on the part of the client or therapist due to the client’s limited attention or distractibility as was found by Paterson & Scott-Findlay (2002). Finally, therapists may be uncomfortable with pauses in conversation when waiting for the client to respond. Friedland & Miller’s (1998) conversation analysis of a
individual’s (with ABI) conversations with his wife, mother, and a researcher support this. Their study showed that the researcher was not as “tolerant” of silences as were family members who gave the client the time he needed to respond.

Differences were found between occupational therapists’ interview styles. These differences were not necessarily facilitators or hindrances but they impacted clinically relevant aspects of goal setting such as length of the interview and focus of goals identified. Previous clinical experience may have influenced conversation topics. For example, OT3, whose experience was in inpatient rehabilitation, spent more interview time on self-care and mobility issues compared to OT1 and OT2 who were community practitioners who, in contrast, placed more emphasis on leisure and employment. The goals subsequently identified by the participants reflected these differences in therapist practice experience, although all participants were living in the community and were 4 to 30 years post brain injury.

Eliciting client participation in goal setting can be challenging as evidenced by the complexity of client-therapist communication in eliciting problem identification. However, the process seems to be remarkably robust to inter-therapist differences and all the clients in this study were able to identify problems (the first step in goal-setting). While specific behaviours appear to facilitate and hinder goal setting, no observed behaviours halted the process. These findings support the inclusion of cognitively impaired clients in the goal setting process.

### 3.6 Limitations & Future Directions

This study was exploratory in nature and provides an initial look at the conversational behaviours used in the process of problem identification during goal setting. While inspired by conversation analysis, we were not able to employ the rigorous and strict pragmatics required in this approach. Limited resources did not allow for the detailed transcriptions used by conversation analysts, and the nature of the videotapes constrained our analysis, as therapists were not shown in most videotapes. However, our initial results suggest that conventional conversation analysis, complete with detailed transcriptions of speech delivery characteristics (e.g., intonations) would be a useful method for deepening our understanding of therapist-client interaction in goal setting with individuals with cognitive impairments. Given the small sample size in this study and
methodological limitations, further research is needed before considering broader applications. While generalization of our results is limited, they do provide a foundation for future analyses of this kind.

Further examination of the issue of lack of uptake by the therapist is warranted. It is hypothesized that lack of uptake, such as lack of acknowledgement of client response, has considerable impact on what the client will share with the therapist and, as a result, affect the course of, and information obtained during the goal setting interview. How topic shifts should be managed in the context of goal setting interviews is not clear. For example, perhaps clients should be asked if they are ready to move on before shifting topics. Further characterization of conversational pauses may provide guidance about managing topic shifts as it may elucidate the optimal time needed for individuals with chronic brain injury to respond to interview questions.

The impact of the conversation partners (dyads) was not explicitly examined in this study. Differences in communication patterns between client-therapist dyads with respect to age and gender or experience levels of the therapist would be useful to consider. For example, do younger or less experienced therapists use different communication behaviours than older or more experienced therapists? Do female therapists communicate differently with male versus female clients? Finally, what impact do these dyads have on identifying specific problems or negotiating goals?

In summary, this analysis of therapist-client interaction during goal setting sessions identified conversational behaviours that facilitated and hindered problem identification. While further study is warranted, our results suggest that therapists need to be vigilant about really listening to their clients, exploring what they say and allowing sufficient time for their responses. Being mindful of behaviours that facilitate and hinder goal setting may assist clinicians to improve goal setting interview skills and to subsequently assist their cognitively impaired clients to participate optimally in setting their rehabilitation goals.
Chapter 4

4 The challenge of client-centred goals in brain injury rehabilitation: Embracing the impractical, unrealistic, and unattainable.

This manuscript is the first of two papers resulting from a study that explored occupational therapists’ perspectives about goal setting in acquired brain injury rehabilitation. The second manuscript is found in Chapter 5. A version of this manuscript (Chapter 4) has been submitted to the Canadian Journal of Occupational Therapy.

4.1 Abstract

**Background:** Many well-meaning clinicians may not fully include their clients with acquired brain injury in goal setting despite evidence showing that their participation is associated with better outcomes. **Purpose:** The purpose of this study was to understand how occupational therapists facilitate goal setting with their clients with acquired brain injury. **Methods:** Thirteen occupational therapists employed in different neurorehabilitation settings participated in in-depth interviews regarding their goal setting practices. A grounded theory perspective guided participant recruitment, data collection and analysis. **Findings:** Embracing client-determined goals emerged as the main theme explaining how client’s participation in goal setting was accomplished regardless of severe brain impairment and rehabilitation setting constraints. Four subthemes were uncovered: believing that the client decides, enabling client engagement, taking on the challenge and managing arising tensions. **Implications:** Considering these themes may be useful for developing goal-setting protocols that enable more fulsome participation by individuals with brain injury.
4.2 Introduction

Many clinicians assume that individuals with acquired brain injury (ABI) are likely to set goals that are unrealistic and unachievable (Ertzgaard, Ward, Wissel, & Borg, 2011; Levack, Dean, McPherson, & Siegert, 2006; Van de Weyer, Ballinger & Playford, 2010). As a result, these individuals may be excluded from the goal setting process or included only as passive participants (Abreu, Zhang, Seale, Primeau, & Jones, 2002; Parry, 2004). However, there is mounting evidence that client participation in goal setting is associated with better engagement, and improved outcomes in rehabilitation (Kus, Muller, Strobl & Grill, 2011; Matsos, Miller, Eliasson, & Imms, 2004; Playford, Siegert, Levack, & Freeman, 2009; Webb & Glueckauf, 1994; Wressle, Eeg-Olofsson, Marcusson, & Henriksson, 2002; Young, Manmathan, & Ward, 2008). Understanding how to facilitate this participation is thus of considerable importance to occupational therapists.

Discrepancies have been identified between clinicians’ intentions to include the client with ABI in goal setting and what happens in actual practice (Lawler, Downswell, Hearn, Forster, & Young, 1999; Levack et al., 2006). A systematic review found that while clinicians valued client participation and perceived themselves to be client-centred, in actual practice, clients were passive participants, and including the client in goal setting was uncommon (Rosewilliam, Roskell, & Pandyan, 2011). Discrepancies between what the client wants and what the professional thinks they need, and professionals’ judgments about how realistic and achievable the client’s goal may be, have been identified as factors that limit clients’ participation (Barnard, Cruice, & Playford, 2010). These discrepancies have resulted in the therapist setting the goal (Parry, 2004) or changing the ‘essence’ of the client’s expressed goal (Barnard et al., 2010).

Multiple barriers to actively including the client in goal setting have been identified (Kuipers, Carlson, Bailey, & Sharma, 2004; Parry 2004; Sumison, 2004). Among these constraints are environment factors (lack of time, resources), clinician factors (lack of expertise), and client factors (previous knowledge about goals, readiness to participate, cognitive/communication impairments) (Hersh, Worrall, Howe, Sherratt, & Davidson, 2012; Larson Lund, Tamm, & Branholmm, 2001; Laver, Halbert, Steward, & Crotty, 2010). Unfortunately, these barriers outweigh facilitators (Sugavanam, Mead, Bulley, Donaghy, & vanWijck, 2013).
Strategies to address barriers have been suggested but their efficacy is not known (Barnard et al., 2010; Hersh et al., 2012; Kuipers et al., 2004). Clinician led actions have been proposed, including, providing education, orientation to rehabilitation (Holliday, Cano, & Freeman, 2007; Leach, Cornwell, Fleming, & Haines, 2009), using listening and negotiation skills (Bright, Boland, Rutherford, Kayes, & McPherson, 2012), and adapting strategies to meet the needs of clients with cognitive (Kuipers et al., 2004) and communication impairments (Hersh et al., 2012).

Identifying barriers and proposing solutions is an important step in working toward clinically useful goal setting practices that provide more opportunity for client participation. Given emerging evidence linking client participation in goal setting to better outcomes, and evidence that many of these individuals are able to self-set realistic and achievable goals (Fischer, Gauggel, & Trexler, 2004; Gauggel, Hoop, & Werner, 2002), it is important to gain a better understanding about how occupational therapists can facilitate more fulsome participation in goal setting.

4.3 Purpose

This study sought to understand how occupational therapists facilitate participation in goal setting with individuals with ABI.

4.4 Methods

4.4.1 Design

In-depth interviews were conducted with occupational therapists about their goal setting experiences with individuals with ABI using a constructivist interpretive grounded theory perspective (Charmaz, 2006). Grounded theory was chosen as it provides a method for systematically studying the diversity of complex processes such as goal setting and is useful in understanding how these take place in real world settings (Charmaz, 2006). The constructivist interpretative approach meant that we sought an understanding of the practice of interest, (goal setting), and the meaning ascribed to that practice by participants, in this case, occupational therapists. Accordingly, we viewed, “both data and analysis as created from shared experiences...
and relationships with participants and other sources of data” (Charmaz, 2006, p.130). We considered ourselves as researchers to be part of the research process, and understood that our experiences, values, and assumptions influenced how data was collected and analyzed. A reflexive stance was taken to recognize how our pre-existing experiences, values and assumptions influenced the research process.

The positionality of all authors as both researchers and rehabilitation professionals (four occupational therapists and one speech-language pathologist) meant that we were familiar with the contexts within which participants worked. The occupational therapist researchers’ perspectives about clinical occupational therapy were assumed to be similar to the participants. This meant an a priori assumption that we shared similar professional values and beliefs with the participants including those related to client-centeredness; that clients are “active partners in the occupational therapy process” and that “occupational therapy focuses on enabling occupation” (Townsend, 1997, p.31). We assumed that participants would share our beliefs that every individual is unique, capable of making choices, and has the ability to participate in occupation and the potential for change.

This study received the necessary approvals by the Research Ethics Boards from Baycrest and University of Toronto. All participants provided written, informed consent prior to participation in the study.

4.4.2 Participants

Initially, occupational therapists with greater than five years experience with goal setting working in the area of ABI were recruited from private and public health care settings in Canada. According to grounded theory methods, questions that arose during the analysis guided subsequent participant selection and resulted in purposive participant recruitment. For example, to explore the emerging idea that therapists with less experience had more difficulty facilitating goal setting than those with more experience, led to recruitment of participants who had less than three years experience. Wondering if differences existed between practice environments led to recruitment of participants from a variety of practice settings, including both private and public facilities. As themes emerged, additional participants were recruited using a snowball technique.
Participants continued to be recruited until subsequent interviews did not render any new ideas (i.e. theoretical saturation).

4.4.3 Data Collection

In-depth interviews were conducted with thirteen occupational therapists regarding their goal setting experiences with individuals with ABI. The first author conducted all interviews and began by inviting participants to describe their goal setting practices with the statement, “Tell me about how you use goal setting in your practice.” Following grounded theory tradition (Charmaz, 2006), interview questions were modified throughout data collection to explore emerging issues raised by participants. All interviews were audiotaped and transcribed verbatim by a research assistant.

4.4.4 Data Analysis

Constant comparative analysis was used; data from each interview were analyzed and compared prior to conducting subsequent interviews (Charmaz, 2006). In this way, emerging ideas could be explored further in subsequent interviews. Transcripts were analyzed line-by-line and initial codes were assigned to data. Next, focused coding, where initial codes with similar context were merged into super-ordinate categories, was done. Through this process, data was sorted and synthesized into representative conceptual categories. Theoretical coding, which integrated the synthesized data into themes and subthemes, was performed in conjunction with the development of a conceptual map that indicated the relationships between core categories. Throughout the analytical process, as new data were collected, codes were compared, data revisited and reconsidered in relation to new data and emerging codes.

To ensure rigor of the analysis, several strategies were employed. Memo-writing, diagramming, and in-depth discussions between research team members were used to compare data, develop ideas about codes, direct further data collection, explore relationships, and guide further data collection (Charmaz, 2006). To ensure reliability of coding, other members of the research team (DD, GLD) performed initial coding independently, and then codes were compared with those of the primary author to ensure that they were reflective of what was happening in the data. This process was repeated at each step of the analysis.
4.5 Results

Thirteen occupational therapists with an average of 12.58 (SD=6.99) years experience working with clients with ABI, participated in interviews that ranged from 27 to 57 minutes (mean=41.15; SD=10.12). All therapists were working in practice settings in large urban and suburban communities in Canada where their primary clients were individuals with ABI. Three therapists worked in public acute care hospitals; three in inpatient rehabilitation; three in outpatient rehabilitation centres; two in public community rehabilitation; and two in private community rehabilitation practices. All therapist participants received their occupational therapy training in Canada at four different schools. Four therapists had Bachelor’s degrees in occupational therapy; five had professional Master’s Degrees; and 4 had research Master’s degrees in a variety of subjects.

Results are presented according to the major conceptual theme and sub-themes that emerged from the analysis. The major conceptual theme of *embracing client-determined goals* explains how therapists facilitated client-determined goal setting. Subsequent sections describe subthemes: *the client decides, enabling engagement, taking on the challenge* and *managing tensions*. These relationships are depicted in Figure 1. Supporting quotes have been edited to improve readability (i.e. words such as “um” were removed).
4.5.1 Embracing Client Determined Goals

Embracing client-determined goals was the major theme that explained how occupational therapists facilitated goal setting with their clients with ABI. This meant the therapist held a strong belief that the client would decide on his or her own goals and took whatever steps were needed to ensure that they could do so. For many therapists, this was a considerable challenge that involved managing tensions that arose as a result of enabling clients to decide on their goals.

“I want to go see Justin Bieber” was an example of a client-determined goal, set by a client with a severe brain injury in acute care. To many professionals involved with this client’s care, this goal appeared impractical, unrealistic, and unattainable. However, this client’s therapist held a strong belief that the client decides on the goal, that her job was to enable engagement by using
strategies to empower the client to make that decision, *take on the challenge* of making this happen, and to *manage tensions* that arose as a result of enabling the client to determine his goal.

“...*Most often, it’s [the goal] identified by the patient and they say something that people dismiss and are like well that’s ridiculous, and so I often say, that’s not ridiculous! Let’s try it...I like to run with wild and crazy ideas!*” Elena (acute care)

Therapists, like Elena, who embraced client determined goals, did not accept minimal inclusion of the client, and challenged themselves to elicit what was really important to that client. They worked toward keeping the client’s goals at the forefront. They were seen by other therapists to ‘*go beyond*’ the usual goal setting practice patterns of that setting. Therapists who embraced client-determined goals were excited by this challenge.

“I love the challenge! I get excited to say oh this seems so not possible but the patient really wants it so let’s just do it!” Elena (acute care)

Not all therapists in this study were able to fully embrace client-determined goals although all expressed a desire to do so. Only three therapists wholly embraced client-determined goals. Of the others, nine expressed desire to practice this way, but felt unable to do so completely. One community-based therapist explained that there was no room for client participation in goal setting in her practice. The goals were pre-determined by an intake worker and simply given to her. A continuum of embracing client-determined goals was identified, ranging from those who wholly embraced this goal setting means to those who were unable to do so at all. Data presented in this article comes from the three therapists who fully embraced client-determined goals as well as several therapists who were able to partially embrace this goal setting means. Data that reflects therapists who were not able to embrace client-determined goal setting is presented in another paper (Chapter 5).

### 4.5.2 The client decides.

Regardless of the severity of impairment, therapists who embraced client-determined goals assumed from the outset that the client was capable of participation in goal setting. They understood that using client-determined goals was connected to the client’s engagement in
therapy. They valued and accepted the unique opinions of that person, even if severely impaired, and accepted that what the client wants is not necessarily what the therapist wants or expects. They took the stance that the client decides his or her own goal.

“I think we don’t assume that they are incapable. We assume that they are capable. We want to empower our patients with as much information and education as we can so that they can make an informed decision [about goals].” Elena (acute care)

4.5.3 Enabling Engagement.

Enabling engagement explains how therapists operationalized their core belief that the client decides on the goal. This meant ‘doing it differently,’ to engage each client. Categories that characterized enabling engagement were: enabling the client to have perspective; getting to know the client and what they might want; adapting engagement strategies; developing trust and rapport; and helping the client to understand and decide.

4.5.3.1 Enabling the client to have perspective.

This category described how therapists provided foundational information about the parameters of rehabilitation to the client and their family. Therapists provided an orientation to rehabilitation, the role of occupational therapy, routines, schedules and explained expectations. It also meant sharing their assessment results and recommendations for intervention with the client.

“So there is lots of education about the process of goal setting, about where they’re going to move along, how long the process takes even the fact that we don’t accomplish many of those goals at the hospital, that they are going on a journey...” Elizabeth (acute care)

4.5.3.2 Getting to know the client and what they might want.

Therapists described an iterative process of getting to know the client that occurred over time and used multiple strategies for engagement. They interviewed the client and their family, and observed occupational performance through standard assessment procedures. Therapists reported that with experience, they learned to “ask the right questions” which facilitated client
engagement in goal setting. Examples of questions therapists identified as helpful are included in Table 3. Simply asking clients what their goals, wishes, or plans were, was found to be effective in engaging clients, even those with severe impairment. Therapists recommended guiding the client from general questions to more specific, but trying to let the conversation flow as naturally as possible.

Table 3 Examples of Facilitative Questions Identified by Interviewees

<table>
<thead>
<tr>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>What do you really need to be able to do to go home?</td>
</tr>
<tr>
<td>What is most important for you to do?</td>
</tr>
<tr>
<td>What are your expectations about our work together?</td>
</tr>
<tr>
<td>Tell me what you can’t do right now.</td>
</tr>
<tr>
<td>Tell me what you’d like to be able to do.</td>
</tr>
<tr>
<td>Tell me what is a typical day for you?</td>
</tr>
<tr>
<td>What does walking help you to do?</td>
</tr>
<tr>
<td>Does this goal sound accurate to you?</td>
</tr>
<tr>
<td>Tell me more about that…</td>
</tr>
</tbody>
</table>

“I think it’s like for me, it’s all about finding out about who they were before they came to hospital. I spend a lot of time in my initial interview and my initial assessment understanding who they were and what they did you know, sort of getting a sense of that person.” Kimberley (acute care).

Getting to know the client also required careful listening. Therapists emphasized that it was important to ‘really listen’ (Elena) as this helped to understand that individual and uncover their needs.

“I really want to comment that every client is different so even though I’ve seen hundreds of clients with the same injury every client will bring in to that interaction something different and you have to always step back and listen.” Elizabeth (acute care)

“…I think, hearing the patient's perspective, because so many times we as a team, everybody dismisses people's wishes or goals...that's just not realistic until you hear them out and see their plan.” Elena (acute care)
Adapting engagement strategies.

Therapists described how enabling their clients’ engagement in goal setting meant ‘*doing it differently*’ (Tamara). This meant by adapting strategies to suit the client’s unique needs. Therapists described how they used shorter, more frequent sessions to set goals, and focused on setting one goal at a time. They adapted interview procedures for clients with more severe impairment by providing additional time for clients to process information and respond to questions, by repeating questions, and clarifying or reflecting back the client’s responses. They made frequent reference to goals, and repeated how goals would be used in rehabilitation. They involved family members when the client was unable to communicate due to severe cognitive, communication or medical impairment. How Elena, an acute care therapist adapted her approach for people with severe cognitive impairment is described in the following excerpt.

“...*We involve the patient as soon as they can be involved, in making them aware of what's happening, and setting goals on a concrete basic level. So breaking it down to something that's relevant, personally meaningful to the patient and where they can see the benefit...I think there is a lot more repetition and work involved. I would do one goal at a time with a patient with significant impairment.*” Elena (acute care)

Developing trust and rapport.

Building trust and rapport was identified as being of particular importance in engaging clients with severe impairment. Therapists across care settings explained that trust and rapport was a foundational tool used to enable client engagement in goal setting.

“*You need to be able to interact with the person. You need to be able to understand what's going on first. So if you can built a rapport you have that as a back bone kind of the foundation [for goals setting].*” Eden (inpatient rehabilitation).

Helping the client understand and decide.

Enabling engagement meant helping clients understand and decide on their goal. To help them make informed decisions, therapists voiced concerns, explained what the client’s future needs might entail, and discussed what might be the consequences of the client’s decisions. They
accomplished this by explaining assessment results and reviewing their recommendations with the client.

“...Trying different things to see what they have difficulty with, to grade it in such a way to see what they're understanding or not understanding, to see if that's what they want to work on...” Tamara (inpatient rehabilitation).

4.5.4 Taking on the challenge.

Embracing client determined goals meant taking on the challenge of enabling clients to decide on their goals in environments that may not be conducive to, or may be in conflict with, working toward those goals. Categories that explained this subtheme were advocating for the client and their goals, overcoming barriers, and pushing aside traditional goal setting practices.

4.5.4.1 Advocating for the client and his or her goals.

Taking on the challenge of embracing client-determined goals required therapists to be strong advocates for clients and their goals. This meant that therapists prioritized the client’s goals over others (e.g., organization or therapist’s goals) and convinced others of the merits of these goals. Establishing and maintaining key supporting relationships, practicing transparently by educating others about the importance of the client’s goal (e.g., reporting on them in team meetings), and integrating them with the organization’s goals were all ways therapists advocated for clients and their goals. One therapist described how she was able to pursue a client’s goal to use the bathroom independently by advocating for that goal with the unit manager:

“...[Pursuing the client’s goal is important] even if the way is so unorthodox that it’s never been tried before. We’ve never taken a door apart so the client can see the toilet directly [from his bed] and this is the first case in 20 years that I’ve seen, but the manager said ‘sure, let’s try it’ and they called maintenance and they did it.” Elizabeth (acute care)

4.5.4.2 Overcoming barriers.

Overcoming barriers meant engaging the client despite challenging circumstances (e.g., cognitive impairments, facility constraints). Therapists who embraced client-determined goals
did not talk about barriers, but rather articulated opportunities for helping the client, and opportunities for educating and engaging others. They seized these opportunities to pro-actively create a practice culture that supported working toward client-determined goals.

“I guess I wouldn’t see barriers because I think we just try to work around it and if that person has an impairment we would still try to get through them as much as possible.” Kimberley (acute care).

4.5.4.3 Pushing aside traditional goal setting practices.

Therapists described *pushing aside traditional goal setting practices* to enable clients to determine their own goal. They questioned the use of SMART goal (Specific, Measureable, Achievable, Realistic, Time-bound) setting rubrics for people with brain injury. They challenged the notions of realistic, achievable, measurable and time bound. They reported that setting time frames, making judgments about realism or achievability should be done cautiously as what clients with ABI can accomplish, and how long it will take them, is not known or predictable. One community-based therapist explained her thinking about the realism of goals.

“Mind you, you know what? It's okay for them to have goals that are unrealistic. Sometimes I think personally because even if they can't accomplish them right now we’re in it for the long run.” Ava (community-private practice)

Therapists reported that clients typically chose occupational goals as opposed to impairment-based goals. They reported that many occupational goals are difficult to measure and measurements cannot necessarily account for progress seen in self-efficacy and self-confidence, even if occupational goals could not be achieved within the rehabilitation time frame. Therapists described client goals the way their clients worded them, in real world, functional contexts.

“And they're [the goals are] very functional because I feel like otherwise it's a waste of time goal setting.” Ava (community-private practice).

They saw no limits to client goals that could be addressed. For example, when presented with a non-traditional client goal (e.g., I want to see Justin Bieber), they chose to ask ‘why not?’ instead
of invoking limits to goal setting that would confine goals to what were common for that practice setting (e.g., self-care, dressing).

“...Well, you need to let them set those goals [unrealistic or difficult to achieve] because if you don't you're going to basically tell them that they can't have dreams or they can't even think about getting better and you're really limiting them...People make gains so many years post injury. How can you tell someone you’re never going to work again, you’re never going to drive again? I mean you can't.” Ava (community-private practice).

4.5.5 Managing arising tensions.

Therapists described how they managed tensions between client determined goals and conflicting organization parameters. They did this by garnering support from key personnel, aligning client goals with differing professional agendas and pre-determined outcomes (e.g., discharge). Managing arising tensions became easier with experience.

“ ...I think the older, the more experience the OT has the better, right? Because as a new grad you shy away from thinking outside the box or saying things that are out of the norm whereas the more experience you get the more reflective you get and the more direct you can become with the team member even if it's going against the grain or the usual norm of how things worked on that unit or the culture of the unit.” Tamara (inpatient rehabilitation).

Managing arising tensions was possible when surrounded with others who also supported working toward the client’s goals. Creating this milieu required that therapists recognize the importance of establishing trust and maintaining supportive relationships with other health care professionals and staff. It meant being an active part of developing a culture that welcomed client input.

“If the staff on the floor don't support this type of culture [i.e. welcoming client input], it is incredibly hard to do. If the nurses don't support it [client determined goal-setting], it won't happen...that's one of the reasons I stay where I stay is because somehow they've caught onto our role. A lot of time they have no clue what we're doing but they're coming along with us and they're trusting that when [everything] settles down it will work.” Elizabeth (acute care)
4.6 Discussion

The aim of this study was to understand how occupational therapists facilitate participation in goal setting by clients with ABI. Using grounded theory methods, in-depth interviews with occupational therapists revealed that client-centred goal setting was facilitated through a means of embracing client-determined goals. Therapists who were fully committed to this means enabled clients to decide their goals and undertook strategies to facilitate their engagement.

Aspects of the emergent themes warrant discussion. First, the subtheme, the client decides, has important implications because it extends our understanding about the collaborative nature of client-centred goal setting by identifying that goal source (i.e. who decides the goal) is relevant for facilitating and prioritizing clients’ goals. Second, embracing client-determined goals reflects a goal setting process that aligns with the Canadian Model of Client-Centred Enablement (CMCE) but does not fit as well with clinically popular goal setting paradigms (e.g., SMART goals). Third, insights about strategies therapists employed to facilitate goal setting were found. These may be useful in designing more specific, relevant goal setting paradigms for use with this client population.

Embracing client-determined goals was underpinned by the therapist’s adherence to the belief that the client decides his or her goals. This adherence led some therapists to follow a goal setting means that prioritized clients and their goals above all else. These therapists explicitly identified the goal source as the client, and not the therapist. This finding is in contrast, with previous studies that have found that the therapist ultimately set the goals and the client simply agreed (Barnard et al., 2010; Holliday et al., 2007; Parry, 2004; Sherratt et al., 2011). Our results suggest that explicitly establishing the client as the goal source, may be an important factor in facilitating client participation in goal setting.

Embracing client-determined goals reflects a goal setting process that is well aligned with Canadian occupational therapy practice models (e.g., Canadian Model of Client-Centred Enablement and Canadian Practice Process Framework) (Townsend, 1997; Townsend & Polatajko, 2007). Given that our participants were all Canadian trained, and presumably well versed in Canadian occupational therapy literature, this finding is not surprising. However, that
only three therapists were able to wholly embrace this type of practice is of concern and suggests that many therapists continue to struggle with clinical implementation of client-centred practice related to goal setting. In these practice models, goal setting is described as a collaborative process between client and therapist “with client participation and power-sharing as much as possible” (Townsend & Polatajko, 2007, p. 251). Our findings suggest that goal setting with individuals with ABI is facilitated when the client has more of the power.

In contrast, *embracing client-determined goals* does not appear to fit well with clinically popular goal setting paradigms (e.g., SMART goals). The majority of therapists in our study used the SMART rubric to guide goal setting. While therapists agreed that specificity was important, many reported concerns about how to manage goals they perceived to be unrealistic or occupational goals that were challenging to address within set time frames and the therapy setting. Previous literature supports the contention that these traditional goal-setting rubrics may not be appropriate, and that requirements for realism and achievability interfere with client-centred philosophy (Playford et al., 2009). This issue is of clinical importance given that other studies have found that when encountering what therapists perceived to be unrealistic client determined goals, therapists either ignored the client’s goals, guided them to other goals, or set the goals for them (Levack et al., 2006; Parry, 2004). Understanding goal setting means such as the one described in this paper, may lead to the development of more clinically applicable goal setting paradigms in brain injury rehabilitation.

Our findings provide descriptors of how therapists who *embraced client determined goals* used and adapted strategies to enable client’s engagement in goal setting. For example, they modified their interview techniques by ‘*asking the right questions*’, ‘*really listening*’ and giving the clients time to respond. These findings reflect those of Trentham and Dunal (2009) and Bright and colleagues (2012) who reported the importance of listening, allowing time, prioritizing what is important to the client, and viewing the therapist’s role differently. Further, our results elaborate on Rosewilliam and colleagues’ (2011) recommendation that clinicians should use strategies to enhance client-centeredness by explaining how therapists can do this in goal setting with individuals with brain injury.
4.7 Limitations and future directions

It is conceivable that personal characteristics of the therapist may have an impact on facilitating goal setting. Characterizing personality traits of therapists may be one way to improve our understanding of why some therapists were able to fully embrace client-determined goals and others were not.

To build on our findings and to determine optimal methods for client inclusion in goal setting interviews, exploration of different interview methods would be useful. Motivational interviewing (Medley & Powell, 2010) and life narrative interviewing (Mattingly & Lawlor, 2000) are two possible avenues for investigation. Conversation analysis could be used to explore the interactions between therapists and clients during goal setting interviews.

A strength and a limitation of this study was the relatively homogenous participant group. While this enabled us to make assumptions about the similarities of therapist’s training and background knowledge, it is not clear if similar results would be found with occupational therapists from other countries or within other health care systems. As all participants in this study were female, how gender differences affect goal setting is not known. While therapist participants came from diverse ethnic and religious backgrounds (e.g., East Indian, Chinese, Greek, Italian, Jewish, Caucasian) how this diversity affected facilitating goal setting was not explicitly examined. A question for future study would be to examine how diversity in relation to gender and cultural background of the therapist and the client affects the means of goal setting followed and how tensions arising from pursuit of client-determined goals are managed.

4.8 Conclusions and Implications for practice

Embracing client-determined goals in ABI rehabilitation reflects the importance of valuing and prioritizing the individual in goal setting. Therapists can facilitate client-determined goal setting by committing to the belief that the client determines his or her own goals and advocating on their behalf. Adapting strategies to enable engagement such as providing clients with foundational information, allowing time to understand the individual, adopting an occupational focus for goals, and developing supportive relationships with other staff, enabled therapists to
create a milieu that supported client-determined goal setting. Our results, together with previous literature, lead us to conclude that the development of a more clinically friendly, client-determined goal setting paradigm is needed in brain injury rehabilitation.
Key Messages

1. Enabling individuals with acquired brain injury to set their own rehabilitation goals is a complex process, and requires the therapist to believe in, and advocate for clients and their goals.

2. To facilitate client-determined goal setting with individuals with acquired brain injury, occupational therapists adapted the process by providing foundational information, additional time and repetition, and focusing on occupation over impairment.
5.1 Abstract

The importance of client participation in goal setting has received considerable attention in brain injury rehabilitation literature and is of considerable importance to professions that espouse client-centred practice including occupational therapy. However, numerous barriers to client participation have been identified, including, the environment within which occupational therapists practice. The purpose of this paper is to understand how occupational therapists experience organizational influences on goal setting practices in brain injury rehabilitation. Grounded theory methods were used to explore the goal setting experiences of thirteen occupational therapists in diverse neurorehabilitation practice settings. Findings were conceptualized by the overarching concept, *conceding to organization-determined goals*, which explained how therapists perceived the organizations’ influence on goal setting practices. This meant that *the organization decides* on the goal, and attempts by therapists to incorporate client-centred beliefs resulted in *practice quandaries* and inconsistencies. *Considering the struggle* reflected how therapists struggled to balance their client centred beliefs and values with the obligations of their organizations. Rehabilitation paradigms that address these conflicts are
needed to improve client participation in goal setting and to reduce incongruence in occupational therapy practice and philosophy.

5.2 Introduction

The importance of client participation in goal setting has received considerable attention in brain injury rehabilitation literature (Rosewilliam et al., 2011; Sugavanam et al., 2013). Goals that are meaningful to the client have been shown to lead to better engagement in rehabilitation and better outcomes (McAndrew, McDermott, Vitzakovitch, Warunek, & Holm, 1999; Webb & Glueckoff, 1994). However, therapists have also reported abandoning the client’s goal due to a myriad of external constraints to client-centred practice (Sumison & Smyth, 2000).

Known barriers to the inclusion of individuals with acquired brain injury (ABI) in goal setting include client, clinician and organizational characteristics (Rosewilliam et al., 2011). Client characteristics include their impairments, particularly cognitive or communication deficits (Holliday et al., 2007), lack of knowledge and experience about rehabilitation and goal setting (Laver et al., 2010), and readiness for rehabilitation (Laver et al., 2010). Lack of professional expertise (Sumison, 2004; Van De Weyer et al., 2010) characterized clinician limitations. Facility constraints such as lack of time (Holliday, et al., 2005; Trentham & Dunal, 2009; Van De Weyer et al., 2010), and professional group work patterns (Van De Weyer et al., 2010) have also been identified as barriers to goal setting.

Discrepancies between rehabilitation professionals’ perceptions of client-centred goal setting and what happens in actual practice have been found to impede goal-setting practices (Rosewilliam et al., 2011). The client and therapist have been reported to have different goals, as therapists’ values and beliefs may preclude acceptance of the client’s goal, especially when it differs from the therapist’s or is viewed to be unrealistic (Sumison, 2004). These differences may also arise when therapists perceived that the client lacked the ability to participate in goal setting (Kjellberg, Kahlen, Haglund, & Taylor, 2012).
Challenges resulting from differing goals between therapists and clients have also been reported to be associated with conflict (McPherson, Kayes, & Weatherall, 2009). Tensions have been described when therapists perceived that pursuing client-decided goals were not possible due to limited resources or the client’s impairments (Sumison, 2004). These perceptions have contributed to the exclusion of individuals with cognitive impairment from clinical involvement in, and research about, goal setting (Playford et al., 2009).

Inconsistent approaches may also contribute to the challenge of client-inclusion in goal setting. Leach and colleagues (2010) identified three different goal-setting approaches in the same subacute rehabilitation setting: therapist-controlled, therapist-led and patient-focused. Only one out of eight therapist participants employed a patient focused approach and all therapists identified goals at the level of impairments. This is in contrast to client-centred practice that focuses on setting meaningful occupational goals (Townsend & Polatajko, 2007) and findings in Chapter 4 of this dissertation. Therapists also reportedly have difficulty adapting their approaches to engage clients’ participation, given differing levels of client ability (Larson Lund, et al., 2001). Understanding contextual factors relating to goal setting (i.e. organization influences) may help explain these observed variations in practice, and challenges with implementing client-centred goal setting.

Bright and colleagues’ (2012) autoethnographic study on how clinicians operationalize client-centred practice begins to address organization influences on rehabilitation practice. They found that current health care models constrained client-centred practice by limiting time spent with clients. These models focus on how to move clients through the health care system as quickly and efficiently as possible. This resulted in limited time to get to know the client and to focus on determining and pursuing client identified goals (Bright et al., 2012).

Several studies examined the collective perceptions of health care providers about goal setting in ABI (Bright, et al., 2012; Kuipers, et al., 2004; Lawler, et al., 1999; Leach et al., 2010; Levack, 2006a). Findings from these studies have been largely reported generically. Thus, it is difficult to discern to what extent they are representative of individual professions’ perceptions.
It is clear that client-centered goal setting can be a challenge in neurorehabilitation. What is not clear are the factors which shape and constrain goal setting practices employed by clinicians. Although studies have recognized numerous barriers to goal setting, none have explored in detail how the organization within which rehabilitation professionals work, influence goal setting practices in brain injury rehabilitation. More specifically, there are no studies that this author is aware of that specifically examine how occupational therapists, a profession that espouses client-centred beliefs, perceive organization influences on goal setting in brain injury rehabilitation. Understanding these influences is one way to target development of goal setting paradigms that are more in concert with occupational therapy practice values and beliefs and lead to better alignment of client, occupational therapy and facility priorities.

This paper is the second paper resulting from a larger grounded theory study that aimed to understand how occupational therapists facilitated goal setting with their clients with acquired brain injury. Considerable data about organization related influences emerged in this study and this data was compelling enough to warrant additional attention in the current article.

### 5.3 Purpose

The purpose of this paper is to understand how occupational therapists experience organization influences on goal setting practices in ABI rehabilitation.

### 5.4 Methods

#### 5.4.1 Design

The data reported and analyzed in this paper resulted from a larger grounded theory study that aimed to understand how occupational therapists facilitated goal setting with their clients with acquired brain injury. The interviews that formed the basis of this study explored occupational therapists’ experiences with goal setting in relation to their work with clients with ABI (Hunt et al., under review, Chapter 4 in this dissertation) as well as organizational-related influences on their practice. This paper reports on the latter.

Grounded theory methods, as proposed by Charmaz (2006) were used to guide participant recruitment, data collection and analysis. In-depth interviews were conducted with occupational
therapists about their goal setting experiences with individuals with ABI using a constructivist interpretive grounded theory perspective (Charmaz, 2006). Grounded theory was chosen as it provides a method for systematically studying the diversity of complex processes such as goal setting and is useful in understanding how these take place in real world settings (Charmaz, 2006).

The positionality of the authors, as both researchers and rehabilitation professionals (four occupational therapists and one speech-language pathologist), was such that all authors were very familiar with the contexts within which participants worked. In addition, the four occupational therapist researchers’ training was assumed to be similar to the participants’. As such, an a priori assumption was that we shared similar professional values and beliefs with the participants. This meant we assumed that participants shared our beliefs that every individual is unique, capable of making choices, and has the ability to participate in occupation and has the potential for change.

The constructivist interpretative approach taken in this study views “both data and analysis as created from shared experiences and relationships with participants and other sources of data” (Charmaz, 2006, p.130). The researcher is considered to be part of the research process. A reflexive stance was taken to identify pre-existing assumptions and to recognize how these may influence the research process. The shared professional backgrounds (occupational therapy) and subsequent beliefs and values, between the first author and the participants are recognized as part of the data collection, analysis and interpretation. Additional strategies addressing rigor are addressed in the analysis section below.

This study received the necessary approvals by the Research Ethics Boards from Baycrest and University of Toronto. All participants provided informed, written consent.

5.4.2 Participants

Participants were occupational therapists (N=13) currently working in neurorehabilitation practice settings in Canada with individuals with ABI. In keeping with grounded theory methods, hypotheses that arose during the analysis guided participant selection. Initially therapists with greater than five years experience, working in both public and private institutions
in Canada were recruited. To explore questions that arose relating to experience and differences across practice settings, therapists with minimal experience (i.e. less than 2 years) and from different practice settings (e.g., acute care, community, inpatient and outpatient rehabilitation) were recruited. Participants continued to be recruited until subsequent interviews did not render any new ideas (i.e. theoretical saturation).

The occupational therapist participants had an average of 12.58 (SD=6.99) years experience in ABI rehabilitation. Interviews ranged from 27 to 57 minutes (mean=41.15; SD=10.12). Therapists were from a variety of practice settings, in large urban and suburban communities in Canada. The mission statements from all facilities indicated that “client-focused” care and “collaboration” with clients is an integral part of their care philosophy. Three therapists worked in public acute care hospitals; three in inpatient rehabilitation; three in outpatient rehabilitation centres; two in public community rehabilitation; and two in private community rehabilitation practices. All therapists received their occupational therapy training in Canada and were working in public or private health care facilities in a neurorehabilitation context at the time of the interviews. Four therapists had Bachelor’s degrees in occupational therapy; five had professional Master’s Degrees; and four had research Master’s degrees in a variety of subjects (e.g., religion; sociology; rehabilitation) in addition to their undergraduate occupational therapy education.

5.4.3 Data collection

An interview guide was developed to prompt the interviewer if needed to gather additional information related to the research topic. However, as is convention in grounded theory, questions were designed to avoid leading the participant, but rather to stimulate further thought and discussion. Interview questions were modified throughout data collection to explore emerging issues raised by participants.

Information about the mission and values of participant’s workplaces was obtained following the emergence of themes from the data. This information was identified from participants’ workplace websites.
5.4.4 Procedure

Occupational therapists were recruited by direct calling facilities with occupational therapists working in neurorehabilitation, and by word-of-mouth recruiting. Potential participants were initially contacted by telephone, and upon oral agreement, an interview time was established. Following receipt of written, informed consent, face-to-face in-depth interviews were conducted with the first author. Participants were asked to describe their goal setting practices by asking them to, “Tell me about how you use goal setting in your practice”. Interviews were audio tape-recorded and then transcribed verbatim by a research assistant.

5.4.5 Analysis

As per grounded theory methods, constant comparative analysis was ongoing throughout the study. Each interview was transcribed, coded, and analyzed before proceeding with the subsequent interview. The analysis for this paper was guided by an emerging hypothesis from initial interview data that organization parameters influenced therapists’ goal setting practices. As such, previously completed interview transcripts were re-read and compared with subsequent interview data.

The specific analysis began with the first author’s review and line-by-line analysis of each transcript. Initial codes were assigned to each line to reflect what was occurring in the data. Next, initial codes with similar context were merged into super-ordinate categories (focused coding). Transcripts and codes were reviewed, compared with new data and refined following each subsequent interview. Following this constant comparative process, data was sorted and synthesized into representative conceptual (core) categories. Finally, theoretical coding, which integrated this synthesized data into a unifying framework was performed. A conceptual map was developed that indicated the relationships between core concepts. Memo writing and conceptual mapping strategies were used to compare data, refine and develop ideas, and to direct further data collection.

As themes relating to organizational influence emerged, the primary author visited participants’ workplace websites to obtain additional context regarding workplace care philosophies for the analysis.
To ensure rigor of the analysis, several strategies were employed. Other members of the research team (DD, GLD, BT) performed initial coding independently, and then codes were compared to ensure that they were reflective of what was happening in the data. In the event of disagreement, codes were re-worked until mutual agreement was reached. This process was repeated at each step of the analysis. Regular, frequent, in-depth discussions with other members of the research team were also employed to ensure rigor and reliability of the analysis.

5.5 Results

How occupational therapists experienced organization influences on goal setting practices was captured by the overarching concept of *conceding to organization-determined goals* as shown in Figure 2. At the top of the diagram, *the organization decides* represents therapists’ perceptions that the organization had pre-determined goals (e.g., “the goal is discharge”). Therapists either accepted and prioritized the organization goal (as depicted on the right side of diagram) or struggled with how to balance their client centred values with their perceived obligations to their workplace (*considering the struggle*) (as depicted on the left side of the diagram). These attempts resulted in *experiencing pragmatic quandaries* (bottom of diagram) or clinical practices that created additional conflicts for therapists, that ultimately also led to prioritizing the organization’s goals. Therapists who worked towards enabling client centred goals also tipped the balance towards experiencing more pragmatic quandaries. Therapists who worked within the organizational demands experienced fewer quandaries. This is represented by the centre part of the diagram.
The results are first presented by characterizing the central theme of *conceding to organization-determined goals*. Subsequent sections describe the sub-themes, *the organization decides* and experiencing *pragmatic quandaries* and parallel theme, *considering the struggle*. Supporting data (i.e. quotes or interview excerpts) have been edited for readability (e.g., words such as ‘um’ have been removed).

### 5.5.1 Conceding to organization-determined goals

*Conceding to organization-determined goals* was the central theme that illustrated the impact of organization parameters on occupational therapy goal setting practices in brain injury rehabilitation. *Conceding to organization-determined goals* depicted a goal setting mechanism whereby the therapist accepted or felt obligated to prioritize goals that were predetermined by the organization, consequently marginalizing client participation and input in goal setting yet maximizing therapists’ time efficiency. This meant that client participation and input in goal setting was minimal if sought at all. Therapists explained how perceived or real pressures to demonstrate outcomes or meet benchmarks (e.g., discharge, time efficiencies) in combination with a need to follow work place traditions, (i.e. what has been done before in that workplace) led to a perceived lack of control over establishing and pursuing client determined goals.
Ultimately, this resulted in not pursuing goal setting with the client at all, or relinquishing the client’s goal in favour of the organization’s goal. This core theme also explained how therapists’ attempts to balance client-centred practice beliefs with their workplace obligations resulted in conflicts in day-to-day pragmatics of practice (i.e. experiencing pragmatic quandaries).

“There were a lot of assigned goals. Some based on the staffing and what the staffing wanted of certain professions. Some were based on just the fact that we had to get patients through. As soon as they could get home they were being discharged. To the point, you're sometimes pushing people through. They have great other goals but, well, we gotta make sure you can get home, get dressed, get yourself fed.” Laurel [inpatient rehabilitation; 5 years experience].

5.5.2 The organization decides

“The goal is discharge...the end goal is ultimately whether we get the people to be discharged home safely or on to their rehab program or their next discharge destination” Kimberley [acute care; ten years experience].

This statement, by an acute care occupational therapist, exemplified how she perceived that the organization decides the overarching goal for clients. This subtheme, the organization decides reflected occupational therapists’ acknowledgment and acceptance of organization-determined goals as over-riding all else. It also represented how therapists perceived a lack of control over the ability to change the goal source (i.e. who sets the goals), or to enable the clients to set their own goals instead. The impact of organization-decided goals was perceived to limit the scope of goals that could be addressed by occupational therapists, marginalized client participation, and resulted in therapists feeling obligated to prioritize the organization’s goals. One community therapist described how goals were predetermined by the intake worker within her organization, and given to the therapist. She reported little or no opportunity to explore goals with the client, thus marginalizing the importance of the client in the goal setting process.

“...So the goal setting for the primary goals is already dictated based on their intake interview [with another health care professional]...so not entirely client centred...my goals always have to be based on the reasons for referral. So goal number one would be something along the lines of client will safely complete bathroom transfers...we would never be able to justify time with the
client in terms of goal setting about anything to do with leisure or activity.” Rebecca [community; one year experience].

However, the organization decides also meant that therapists were provided with a pre-determined roadmap with a specific focus and a plan of action, thus maximizing time efficiency. Having organization-determined goals resulted in therapists making quick referrals to other service providers when clients had goals that went beyond what their facility was able to address. “...Because we have such limited visits it was usually a matter of, to be honest, referring to a different service in the community or like at the hospital or something like that.” Rebecca [community; one year experience]

Despite the positive perceptions of time efficiencies, the perceived obligations to abide by organization decided goals created tensions and struggles for therapists by constraining client-centeredness. These struggles also resulted in uncertainties and inconsistencies in day-to-day goal setting practices.

5.5.3 Experiencing pragmatics quandaries

This subtheme reflected how occupational therapists experienced tensions and subsequent practice dilemmas that arose from conflict between attempts to integrate the client-centred philosophies inherent in occupational therapy, with organization obligations. To reduce these, therapists often conceded to organization-determined goals. These practice quandaries were typically described as inconsistencies, ambiguities, and uncertainties in day-to-day goal setting pragmatics. Examples of the practical quandaries described by therapists related to the use of organization-determined goal setting methods (e.g., SMART goals, use of goal coordinators), time constraints, and the lack of, or inconsistent, goal setting practices.

The use of commonly accepted goal-setting practices created conflict for occupational therapists, as they were perceived to support organization priorities at the expense of the clients’ priorities. An inpatient rehabilitation therapist described how therapy goals were based on the organization’s established practice of using the Functional Independence Measure (FIM). She reported that there was no room for client input into goal setting and that she perceived little control over changing this process.
“A lot of our goals are centered on FIM goals because that is what [our facility] uses to discuss goals...it’s very structured. There is no room for individual differences...Everyone is evaluated on self-care, their mobility. I mean there is a section on social interaction and communication but that's not often regarded. I mean the primary goal ...is get them walking and leave. That's the primary goal of the inpatients...client goals...I don't know how much focus that gets.”

Tamara [inpatient rehabilitation; ten years experience]

Another therapist explained her perceptions about her facility’s use of Goal Attainment Scaling (Malec, 1999) to set goals. She recognized the benefit to the organization by measuring goal progress and attainment, and that it provided structure to the therapist for recording goals. However, this also created tensions for the therapist as she deemed the exercise futile for client benefit. “The notion [is] that we set goals using GAS [goal attainment scaling] because the facility demands it, but it really has no meaning to anyone because they scale it so that the person can meet the goals. Staff get intimidated by goal setting because they feel the client’s goal attainment [or not] is a reflection of their practice. Afka [community; three years experience].

Pragmatic quandaries also arose from the use of the SMART (specific, measureable, achievable, realistic and time bound) goal setting rubric. Six out of thirteen therapists reported using this method of goal setting as they perceived that it was favourably viewed by their organizations and professional regulatory bodies (e.g., provincial occupational therapy regulatory organization) and was an accepted best practice. However, therapists were uncomfortable making judgments about what might be possible (realistic) for clients with ABI to achieve and subsequently struggled with the client-centeredness of SMART goals. Using this rubric was associated with a focus on, impairment-based goals that favoured the organizations’ goals rather than client-determined, occupation-based goals. A community based therapist indicated that being obligated to use this goal setting rubric pushed therapists to make judgments about the realism or achievability of goals which did not promote client-centeredness and contributed toward conceding to organization-determined goals rather than working toward the clients’. An inpatient occupational therapist summed up her experience: “Goals are often written as SMART goals and
more impairment based because [the] facility requires objective outcome measures which may or may not mean anything to the client.” Jenna [inpatient rehabilitation; fifteen years experience]

Using a ‘goal-coordinator’ was another reported practice that led to conflicts between client-centeredness and organizational demands as it segmented professional team roles. Here, a designated member of the multidisciplinary health care team (‘goal co-coordinator’) was responsible for eliciting client goals that would then be addressed by appropriate team members. Although this goal setting method was reportedly designed for efficiency, it nonetheless resulted in practices that reduced efficiency, marginalized the client’s participation and prioritized the organization’s goals. Therapists reported that some professionals were better at eliciting goals and that each professional brought their own particular bias to goal setting. This frequently resulted in goals that were not suitable or relevant for occupational therapy. Clients’ participation was marginalized when the professional in charge of goal setting did not actively seek client participation, but rather set the goals with the client simply agreeing to them.

“They [the goal coordinator] initiate the conversation, with [the client], but it works differently, with every team [member]. Sometimes the social worker will talk about goals in terms of social work…” Valerie [outpatient rehabilitation; twenty years experience]

“It’s interesting sometimes people will say a goal that has nothing to do with me directly…like ambulation. I want to be able to walk.” Sarah [outpatient rehabilitation, twenty plus years experience]

Therapists were left to re-interpret these goals or revisit goal setting with the client creating additional pressures by reducing time efficiency.

Another practice that resulted from using a goal coordinator was the development of multiple sets of goals (e.g., therapist’s goals and client’s goals). Typically, having two sets of goals resulted in prioritization of therapists’ or organizations’ goals over the clients’. One outpatient therapist described how the client’s goal was recorded as stated, but team members wrote in their own goals afterwards. Subsequently, the client’s goals were largely ignored in favour of the therapist’s.
“I would try to stick to that [the client’s goals] but it sometimes depends on how busy we are. We say what the patient tells us. We write down exactly what they say because the patient has difficulty coming up with that long goal right? And we will write down exactly what the patient wants to work on and then as the therapist, the team, [we] will add our sub-intervention goals.

Valerie [outpatient rehabilitation; twenty years experience]

Lack of a formal goal setting procedure, in combination with a reported lack of time, led to inconsistent practices and resulted in conceding to organization determined goals. More than half of the therapists interviewed reported that client goals were never formally established or recorded. Therapists’ perceived lack of time was cited as the primary reason for why goals were not formally established. Caseloads affected how much time therapists were able to devote to the goal setting process. In busier times and without a clear process to elicit client goals, therapists abandoned the process altogether in favour of organization determined goals. An inpatient therapist described how she perceived the need to change client goals due to time pressures resulting from increased caseload demands. In addition, she described how this affected her emotionally.

“And then you never knew what got thrown in… your new patients that would come in that would impact your time with your other patient. So goals… I found had to be pretty fluid just because of the setting. And that was the worst for me as a therapist when you had to change your patient’s goals for the rehab stay based on your entire caseload.” Laurel [inpatient rehabilitation; five years experience].

Lack of time affected therapists’ use of strategies to engage the client with ABI in goal setting. This included strategies such as contacting families to gain their input, and taking the time to get to know that person and what is meaningful to them. One therapist reported that she simply stated the goals for individuals who lacked awareness (Rory; private practice; twenty plus years experience) while others reported referring people to other agencies immediately. One inpatient therapist reported how lack of time affected her ability to contact families which she felt was an important aspect of goal setting with individuals with ABI (e.g., finding out more about the individual; confirming details).
“It's hard because often times there is no time to call to make that extra phone call to the family member who doesn't visit and it's lack of time that is a real problem.” Tamara, [inpatient rehabilitation; ten years]

Another practice quandary was that a perceived lack of support by the organization for client-centred goal setting practices led to procedures being abandoned over time and the adoption of less client centred methods. Without established mechanisms for monitoring the use of goal setting practices and training new therapists, therapists reported that previously established goal setting procedures were simply abandoned over time and organization determined methods were followed instead. An inpatient rehabilitation therapist described how formal goal setting methods were slowly abandoned at her facility.

“I don't know [what happened to formal goal setting procedure] I was on mat [maternity] leave and I came back it wasn't working, it wasn't being used anymore.” Jenna, [inpatient rehabilitation, fifteen years experience].

Another therapist described using procedures that were implemented when their unit was involved in goal setting research but then abandoned when the research project ended. “We don't use it [goal setting procedures] anymore. That's the thing, we used to collect all this data. We started this project because they [management] thought 'oh this is great' or whatever. They've heard of SMART goals, everybody is doing it right? But we don't use it anymore.” Valerie [outpatient rehabilitation; twenty years experience].

The need for mechanisms for training new therapists was also recognized.

“There was a committee that looked at this whole thing and they taught everybody. They did training in the beginning and then new people started working and they didn't have any training. It doesn't carry on, they don't train everybody. We did talk about that in the beginning. Someone did try to look at that with us, educate us again on how to set goals with the clients and make sure we're all doing the same thing, but it just kind of fell through. They [new therapists] learn, I guess, just by observation and listening to other people.” Valerie [outpatient rehabilitation; twenty years experience].
Ultimately, these pragmatic quandaries and resulting conflicts exhausted therapists who subsequently conceded to relying on the structure provided by organization determined goal setting pathways because it was “easier” (Laurel; acute care/inpatient rehabilitation; five years experience). One therapist reported that her decision about how much effort she put into pursuing client-determined goals was based on “how much energy I had that day” (Laurel). Proceeding with what was expected by the organization, was deemed the easier and more acceptable route to follow in goal setting.

5.5.4 Considering the struggle

Considering the struggle emerged as a theme and reflected how therapists struggled to balance their client centred beliefs and values with the demands of their organizations. Therapists questioned the value of including the client in goal setting given their perception of organizations’ control over the process. They considered how hard to fight for client-centeredness in goal setting against their obligations to meet organization-determined goals. Practicing within this paradigm created stress and frustration for therapists who perceived that there was little freedom to pursue clients’ goals that were outside of traditional or expected goals for that care setting. Therapists described resultant feelings of “demotivation” (Tamara) and burn out as Laurel explains below.

“I think we [the occupational therapists] wanted to be doing more client based goal setting and the physiatrist also wanted client based and client led goal setting but because it was a [medical model] unit the therapists actually tend to get very burned out there because you are kind of always fighting the system. When I'd bring up an idea, it was almost be like a brick wall with certain people.” Laurel (inpatient rehabilitation, five years experience).

Considering the struggle was seen across all care settings but was reported primarily by therapists working in publicly funded organizations. Therapists in private community based practice settings perceived more control over goal setting and fewer obligations to follow organization-determined goals and as such did not experience these struggles to the same extent. However, pre-set limits to the number of sessions and time allotted for goal setting interventions, as well as pre-determined limits to the scope of goals, were found in both private and public
settings. These pre-determined limits left therapists feeling disempowered and contributed to their struggles for client-centeredness.

Therapists who worked in publicly funded acute care, rehabilitation and short-term community care agencies explained that goal setting was largely influenced by pre-determined outcomes that were set by their facility (e.g., the goal is discharge). The therapist’s job was to move the client toward that goal. These mandates resigned therapists to prioritizing organization-determined goals. An inpatient rehabilitation therapist noted that “going beyond self-care” was difficult (Jenna). Several therapists reported that client goals were less of a priority in acute care or inpatient rehabilitation than in the community. A community therapist noted the inconsistencies between what the agency mandated and what the client wanted.


How client-centred goals were perceived by others in the organization was considered by therapists. When the individuals leading treatment teams did not value client-centeredness, therapists felt resigned to defer to the organization’s goals. An inpatient therapist explained how the head of the treatment team influenced goal setting in her workplace.

“I don't know as an institution how readily we are interested in what the patients' want to work on. It depends on the team. I work on two different teams with two different physiatrists who have very different ways of seeing the roles of the patients and that impacts also what I do with the patient. One of the physiatrists is not interested in function and that impacts on our work. Especially as OTs because he doesn't value or doesn't see the role of OT and so that is demotivating to a certain degree.” Tamara (inpatient rehabilitation, fifteen years experience).

In contrast, therapists working in publicly funded long term community care settings or privately funded organizations in the community did not experience these struggles to the same extent and reported more freedom in setting goals. These therapists indicated that goal setting was primarily focused on what the client wants or needs and that they had adequate time to include
the client in this process. Overall, they reported fewer constraints to including the client in goal setting or pursuing the client’s goals than their publicly funded peers.

The lack of standard procedures for goal setting and lack of continuity within and across care settings contributed to therapists’ struggles. Therapists expressed frustration at spending considerable time and effort determining client goals only to have no formal mechanism for forwarding these goals to the next care setting, even if that care setting was within the same organization. Some therapists did not see the value in setting goals that would not be carried on to the next care setting.

“I don't know what happens after, I feel like it gets lost to be honest with you…because really, it'd be nice if they could carry it [the goals] out at [another] program.” Valerie [outpatient rehabilitation; twenty years experience].

In summary, conceding to organization-determined goals described therapists’ experiences of struggling to balance organization-determined goals with their client-centered values. Practice quandaries resulted when therapists made attempts to integrate client-centeredness and organization goals. The majority of therapists lacked formal goal setting procedures, and reported following the goal setting mechanism used by their workplace, thus, conceding to organization-determined goals. Therapists’ perceived little control in their workplace with respect to client-centred goal setting. This, in turn, contributed to feelings of “demotivation” and frustration.

5.6 Discussion

This study explored how occupational therapists’ experienced organization influences on goal setting practices in brain injury rehabilitation. Figure 2 depicts how this is thought to occur. Organization-determined goals (e.g., discharge) may be pre-determined. Therapists struggled with balancing these organization priorities with their client-centred beliefs. This resulted in practice quandaries (e.g., setting two sets of goals) and led to the organizations’ goals being prioritized over clients’ goals. These results suggest that goal setting practices or paradigms that
better enable therapists to integrate client-centred goal setting practices within their workplace environment are needed.

This discussion focuses on four key findings regarding clinical practices. First, who sets the goal (goal source) is important as it resulted in specific goal setting means that prioritized the organization goals. Second, two sets of goals resulted from therapists’ attempts to integrate organization obligations and client-centred beliefs. Third, traditional goal setting rubrics and discrepancies between impairment and occupation-based goals were found to be in contrast with client-centeredness. Finally, tensions from philosophical differences, inconsistent practices and lack of time resulted in tensions experienced by therapists.

Our study extends the knowledge about goal setting in brain injury rehabilitation by identifying that goals may be pre-determined by the organization. The resulting goal setting process favours organization priorities while conflicting with therapists’ desire to prioritize clients’ individual needs. When the organization decides the goals, conflict is clearly created with occupational therapists’ client-centred practice beliefs. This may explain why many therapists in this study did not use any formal mechanism for goal setting but instead chose to follow those pre-determined by the organization. These organization-decided goals, were characterized by physical or self-care orientations, and took priority over client goals. This is in alignment with previous research findings that certain goals were privileged over others and clinicians prioritized goals that emphasized physical function and those with shorter time frames (Levack et al., 2011). Our findings extend current knowledge by offering a possible explanation for why clinicians may be prioritizing these types of goals. Therapists prioritize these types of goals because they are the organization’s priority.

The practice of setting two sets of goals (therapist goals and client goals) was reported by the majority of therapists in this study. Reporting a second set of goals, ostensibly referred to by therapists in this study as “sub-goals” or “therapist goals” added to the therapist’s time burden. It also resulted in the client’s goal being largely ignored during intervention. This finding is not surprising given that previous research has shown that having differing goals is a barrier to implementing client-centred practice (Sumison, & Smyth, 2000), that treatment teams simply set goals for the clients in spite of client’s input (Barnard et al., 2010), and that ‘interactional
dilemmas’ arose when clients expressed interest in goals that conflicted with professional goals (Levack et al., 2011). Our findings suggest that organization influences may be one possible source of these barriers.

While the rehabilitation goal setting framework proposed by Scobbie and colleagues (2011) recognized the existence of both client and therapist goals at a conceptual level, the results of our study indicate that in clinical practice, having two sets of goals resulted in organization-determined goals being prioritized and clients’ goals receiving minimal attention. Occupational therapists and the organizations where they work would be wise to consider developing collaborative goal-setting methods that result in a single set of goals that are more reflective of client priorities.

Therapists felt SMART goal setting was needed to comply with organization demands to measure progress and represented best practice methods. Therapists reported difficulties fitting clients’ occupation-based goals in this rubric. This may have occurred due to therapists’ discomforts using occupation-based goals over impairment-based goals in the medical model health care system where they worked. Other researchers have reported problems using SMART goals. Hersh and colleagues (2012) proposed a different rubric (SMARTER goals) in an attempt to improve goal-setting practices in speech language therapy with individuals with aphasia. According to their rubric, goal formulation should consider that goals are shared, monitored, accessible, relevant, transparent, evolving and relationship-centred (Hersh et al., 2012). Playford and colleagues (2009) suggested that goal-setting rubrics in rehabilitation need to be adjusted to reflect patient-centeredness, and that goals should be specific, ambitious and time limited. Our findings suggest that these latter rubrics may be more appropriate in brain injury rehabilitation than traditional SMART goals.

Organization obligations appeared to influence therapists to establish goals that were impairment based, rather than occupation-based. A possible explanation for this may be the therapist’s need to work within organizational parameters and medical models of care (Holliday et al., 2005). In our study, therapists expressed discomforts discussing occupational goals within medical models of care that emphasize impairment. Bright & colleagues (2012) reported similar findings, that therapists’ practice was dominated by the model of care in which they work, and tended to be
primarily assessment based and impairment driven. Using occupation-based goals, rather than impairment-based goals may shift practice toward more client-centeredness (Kjellberg et al., 2012; Sumison, 2004). Adopting an occupation-centred perspective might be one way to enable therapists to shift practice paradigms from impairment-based goals to ones that are meaningful to the client (Fisher, 2013; Hunt unpublished doctoral dissertation, Chapter 4). For example, therapists (Chapter 4) who embraced client determined goals, reported using occupation-based goals (i.e. goals relating to activity and participation) rather than those based on impairments. Therapists’ discomforts using occupation goals in medical model health care systems may also reflect a lack of skill in advocating for the client and their goals (Dhillon et al., 2010).

Inconsistencies in pragmatics and procedures relating to goal setting were a contributor to struggles therapists experienced related to goal setting. Formal and informal goal setting methods, inconsistent reporting methods, and even a lack of goal setting, were described. Inconsistencies were also reported by Leach and colleagues (2010) who found that therapists used a variety of goal setting methods. While Henricksson and colleagues (2009) found that using formal goal setting methods greatly improved client participation over use of informal methods, our study found that including the client was difficult in all methods used. This may be reflective of the challenges resulting from organization influences on occupational therapy goal setting practices.

Finally, lack of time has been consistently identified by therapists, in this study and others (Parry, 2004) as a constraint to client inclusion in goal setting. This has resulted in organization goals and other demands on therapists (i.e. caseloads) taking priority over providing time required to fully engage the client in goal setting.

### 5.7 Limitations and Future Directions

The findings of this study are reflective of a select group of occupational therapists working in practice settings with individuals with ABI. The majority of these practices (N=10) were within the publicly funded health care system in Canada. While struggles were seen across care settings, differences between goal setting in public and privately funded organizations were not
actively explored in the interviews. Future investigation into these differences may provide an additional view of therapists’ experiences in different systems and models of health care.

This study explored the experiences of occupational therapists. Whether other rehabilitation professionals experience similar struggles and practice concerns was not addressed. The influence that individual team members (e.g., team leaders) had on implementing organizational parameters was also not explored. Some of these individuals may have been more or less supportive of client-centred practice. How these results apply to the broader spectrum of rehabilitation professionals and within health care teams is an area for future research.

Recognizing that there are different orientations to setting goals may be a step toward the development of improved methods of client-centred goal setting. Mechanisms that address goal source and use occupation based goals may lead to more holistic, client-centred goal setting practices and result in fewer tensions for occupational therapists in ABI practices. Establishing mechanisms for goal setting that integrate the International Classification of Disability and Functioning (ICF) (WHO, 2001) classifications of impairment, activities and participation may be one place to start. The ICF is a framework that is used internationally across health care professions and provides a common language from which to talk about goals. Managers within organizations who do not have a health professional or client-centred practice background may more readily understand discussing goals that relate to activity and participation. In turn, occupational therapists may be more comfortable using this type of language in team meetings.

Exploring how time influences goal setting practices may be another way to enhance our understanding of best practices in goal setting. While therapists consistently complain that lack of time affects client inclusion in goal setting, little is known about what this means or how much time it takes to effectively practice client-centred goal setting or how this affect outcomes. Studies that examine the issue of time more closely may help our understanding of the influence of organizational constraints on practice.
5.8 Conclusions & Clinical Implications

Using a grounded theory perspective, this study uncovered how occupational therapists’ goal setting practices in ABI rehabilitation were influenced by perceived or real obligations to their workplace organization. Therapists perceived considerable tensions and struggled with attempts to meet demands of their work place which were often in conflict with their client-centred practice beliefs and values. Therapists need to acknowledge these conflicts, and understand how they influence their practices. Preparing occupational therapy students to manage these challenges to client-centred practice during their professional education may be one place to effect change. On a broader scope, different rehabilitation paradigms may be needed to better integrate organization obligations with client centred practice. Considering how the ICF could be integrated into client-centred goal setting practice may be somewhere to start.
Chapter 6

6 Toward the development of client-centred goal setting practice in brain injury rehabilitation

6.1 Introduction

This final chapter provides a summary of the key findings of this dissertation and a discussion regarding how these enhance our understanding of facilitating goal setting with individuals with ABI. Clinical implications for occupational therapy practice are raised, limitations are identified, and considerations for future research conclude this chapter.

6.2 Summary of findings

When this doctoral journey began, I was a clinical occupational therapist who was frustrated with the challenges associated with goal setting with individuals with cognitive impairments due to ABI. Inherently, I believed that these individuals were capable of setting their own rehabilitation goals, but it was not clear why I, and other occupational therapists, seemed to struggle to accomplish this. Research findings confirmed that other rehabilitation professionals also experienced similar challenges (e.g., Levack et al., 2006). However, I found no studies that specifically examined occupational therapists’ experiences with goal setting in this population. My own experiences also led me to speculate that what we say and what we don’t say to our clients may influence the goal setting process. Again, the research literature on this topic in occupational therapy was lacking. It seemed to me that occupational therapists, whose profession has client-centeredness at its core (Townsend, 1997), have much to offer with respect to facilitating goal setting with this clientele. My clinical experiences and questions combined with the lack of answers in the literature, led to the purpose of my doctoral dissertation: to explore how occupational therapists facilitate goal setting with individuals with cognitive impairment due to ABI. My ultimate objective was to determine clinical recommendations for goal setting with this clientele.
The original vision of my PhD journey was distinctly quantitative and straightforward. I planned to develop a tidy goal setting protocol based on a literature review and ‘expert’ interviews. Then, after testing its clinical usefulness with one or two individuals with ABI, I would conduct a pilot study testing its use versus usual care. However, I soon learned that goal setting was a tremendously complex process and there were too many unexplored gaps in the literature to simply jump right into protocol development. Instead, I aimed to address the gaps relating to communication and context, by focusing on developing a better understanding of how occupational therapists set goals with individuals with ABI. To do this, two studies were conducted. First, an exploratory study was carried out that examined how occupational therapists’ communications facilitated and hindered goal setting. Next, a qualitative study using grounded theory methods was undertaken to explore occupational therapists’ experiences with goal setting in brain injury rehabilitation, with the aim of gaining an understanding how therapists facilitated goal setting with their clients.

The first study was a descriptive study that explored communication factors that facilitated and hindered goal setting (Chapter 3). Communication between occupational therapists and individuals with ABI during initial goal setting interviews that used the COPM were analyzed using methods inspired by tenets of conversational analysis (Chapter 3). Results indicated that therapists’ use of acknowledgments and affirmations, open-ended questions about specific tasks, and reflective listening were facilitators for goal setting. Instances of disconnections were hindrances, and were characterized by therapists’ abrupt topic shifts, lack of acknowledgment of, or failure to explore client responses, and not waiting for client verification.

My second study used grounded theory methods to explore occupational therapists’ experiences with goal setting with individuals with ABI. Thirteen occupational therapists, who worked in a variety of practice settings with individuals with ABI, participated in in-depth interviews. The results from this study were extensive and resulted in two manuscripts (Chapters 4 & 5). At the outset of this study I presumed that at least some experienced therapists were able to successfully facilitate goal setting with their clients with ABI. I also assumed that these occupational therapists practiced client-centred goal setting. I found that although some experienced
therapists were able to successfully practice client-centred goal setting, the majority reported considerable challenges to doing so.

The analysis of the interviews with these thirteen occupational therapists elucidated two approaches for facilitating goal setting with individuals with ABI. Who decides the goal (i.e. goal source) was found to be the major distinguishing factor between them. The first means, *embracing client determined goals* described how a minority of therapist participants held a strong belief that the client determined their rehabilitation goals and how these therapists enabled this to happen in actual practice (Chapter 4). Tensions arising as a result of enabling the client to decide on their goal were identified and described.

In contrast, the second goal setting approach, *conceding to organization-determined goals* emerged from the data (Chapter 5). These results were unexpected, and offered a different perspective about goal setting challenges that has not previously been reported. *Conceding to organization-determined goals* explained how therapists prioritized or simply accepted organization-determined goals (e.g., discharge) with minimal or no exploration of the client’s goals. How therapists struggled between obligations to their organization and to their client were described and identified across care settings. Therapists of all experience levels and in all care settings reported experiencing these struggles.

### 6.3 Contributions to the goal setting literature

Taken together, the findings from these studies suggest that implementing client-centred practice with respect to goal setting is a struggle for many occupational therapists working in ABI rehabilitation. Understanding the powerful influence that organization parameters have on goal setting practices, elucidating how some therapists were able to override these influences, and identifying the underlying assumptions and strategies they used to embrace client-determined goals, are the major findings from this doctoral research. These findings address previously unexplored areas of goal setting research, namely how occupational therapists’ facilitate participation by individuals with ABI in setting their own rehabilitation goals. In addition, they provide preliminary results regarding another minimally explored area of research, how
environmental factors, and specifically the health care organization, influence therapists’ goal setting practices.

Research on client perspectives in client-centred rehabilitation, tells us that participating in goal setting and preparing for life in the real world are important to clients (Cott, 2004). The understanding gained by the findings in this dissertation may contribute to the development of goal setting practices that prioritize clients’ perspectives and subsequently enhance client-centred rehabilitation practice.

6.3.1 The struggle of client-centred goal setting in brain injury rehabilitation: Organization influences.

That therapists struggled to implement client-centred practice within the context of their workplace organization was evident throughout both studies undertaken in this dissertation. These struggles were apparent at points of tension between the therapists’ beliefs and values about the importance of using client-centred goals and external structures. Thus, Chapter 3 (Study 1) showed therapists’ struggles during goal-setting interviews when they prioritized the interview structure over the clients’ responses. Chapter 5 (Study 2) showed the same type of struggle but when therapists prioritized organization goals over clients’. For the majority of therapists, organization parameters and priorities prevailed as therapists struggled to balance client-centeredness and organization obligations. Figure 3 combines the methods of embracing client-determined goals (Chapter 4) and conceding to organization-determined goals (Chapter 5) and illustrates how this may occur.
As seen at the top of Figure 3, the goal setting approach taken begins with the therapist’s stance that the client decides the goal, or that the therapist or organization decides (see top of diagram, ‘who decides’). In either case, therapists’ attempt to enable the client’s engagement in goal setting process in a variety of ways, which range from passive participant to active decision maker. As seen in the middle of Figure 3, therapists encounter tensions that arise from either enabling the client to determine their goal or following pre-determined organizational goals. Therapists struggled with or learned how to manage these arising tensions (middle of Figure 3). As seen at the bottom of the diagram, how these struggles are resolved, or not, leads therapists to prioritize and concede to the organization goal (left side of Figure 3) or take on the challenge of embracing client-determined goal setting (right side of Figure 3).
In relation to conceding to organization-determined goals, these findings are consistent with, and expand on, what has been previously reported in the literature about how organizations or health care systems influence therapy and constrain client-centeredness. Bright and colleagues (2011) reported that the priorities in health care systems where therapists (who were involved in a goal setting intervention trial) worked, were found to play a “powerful role in how we prescribed and provided rehabilitation” (Bright et al., 2011, p. 999). Another study recognized that environmental contexts played a role in terms of time constraints and service provider availability (Kuipers et al., 2004). While Levack and colleagues (2011) identified that some goals that favoured short time frames for achievement were privileged over others. Colquhoun and colleagues (2012) demonstrated that specific training and use of the COPM by occupational therapists in geriatric rehabilitation resulted in significant practice improvement, including knowledge of client perspectives, but that following the study period, therapists reverted to previous practices. These authors hypothesized that organization parameters (in this case, previous practice tradition) prevailed. In each of these studies, the context, specifically that of the health care organization, was thought to influence clinical practice.

My findings help to extend our understanding of these influences by identifying that organizations have implicit or, in some cases explicit, goals that must be addressed (e.g., discharge). Further, that therapists felt considerable pressure to meet these obligations, which in turn, led them to prioritize organization goals over the clients and to develop practices that constrained client-centeredness (e.g. developing two sets of goals). By prioritizing organization goals, therapists may meet organization demands (i.e. for apparent time efficiency or achieving organization goals such as discharge) but at the expense of providing their client with optimal opportunities for rehabilitation and perhaps more long-range efficiency (i.e. establishing client-determined goals; retraining goal setting skills).

The organizational psychology literature about goal setting help to explain these struggles and to understand why therapists may prioritize organizations’ goals. From this research, we understand that goal prioritization is related to goal importance and difficulty, with more important, and less difficult goals typically being prioritized (Sun & Frese, 2013). For the majority of therapist participants, meeting the goals determined by their workplace was
important to them, and viewed as achievable. In contrast, client goals were often viewed as
difficult to attain within the health care setting.

Goal setting and client-centred practice literature enables us to understand why clinical practices
such as setting two sets of goals were found (Chapters 4 & 5). Developing two sets of goals
(either explicit or implicit) was reported by a majority of therapists in my research and appeared
to arise from therapists’ attempts to integrate organization obligations and client-centeredness.
The notions of multiple sets of goals and different goal sources are not new (Locke & Latham,
2013). Multiple goals, which may be related or independent of one another, require common and
finite resources including time, attention, and people (e.g., the therapist and client) (Sun & Frese,
2013). The presence of two sets of goals identified in my research (e.g., client and organization
goals) meant that therapists must allocate their time and attention to both sets of goals resulting
in less time spent on each. The majority of therapists attempted to manage this conflict by
prioritizing the organizations’ goals. However, having different goals has been reported as the
number one barrier to client-centred practice (Sumison & Smyth, 2000). Further, it is in conflict
with the partnership that is supposed to be inherent between the client and therapist in client
centred practice. Townsend, in describing client-centred practice stated that it is “vital for all
parties to be working toward the same vision” (Townsend, 1997, p. 73). For therapists,
attempting to guide interventions using two sets of goals is confusing and does not promote this
client-centred practice. When two sets of goals exist, it is not clear that there is a shared vision
for goals and there is potential for goal conflict (Locke & Latham, 2013). Goals that are
perceived to be in conflict can lead to anxiety for the client and the therapist. It may also lead to
certain goals being prioritized at the expense of others (Sun & Frese, 2013; Locke & Latham,
2013). This appeared to be the case in my research, as the majority of therapists relinquished
clients’ goals in favour of organizations’ goals. This seemed to occur when they were unable to
overcome the organization constraints to client-centeredness and/or manage the resultant tension.

Goal setting theory helps us to understand why using one set of goals is important for individuals
with cognitive impairments due to ABI. Locke and Latham reported that goal setting focuses
attention on a particular goal at the expense of others and that goals are supposed to direct our
action and attention. The greater degree of goal commitment, the greater one’s ability to inhibit
alternative tasks (Locke & Latham, 2013). It appears that having one set of goals is beneficial for both clients and therapists.

Townsend’s views about empowerment also help to make sense of why some therapists’ prioritized organization determined goals over the clients’ goals and the resultant tensions they experienced (Townsend, 1998). In her critique of empowerment in mental health systems, she writes that, occupational therapists’ “good intentions” to empower their clients were “overruled” by contradictory organizational processes. These processes included objectifying participants (e.g., referring to them as cases or patients), individualized accountability (e.g., management information system reports such as therapist statistics), and hierarchical decision-making.

“When professionals attempt to promote empowerment, but go along with the system, we lose sight of the disjuncture, the contradiction in every day practice. We are left with a sense of frustration at being misfits who are unaware of the organizational basis of our frustration.” (Townsend, 1998, p.178).

In my research, therapists reported wanting to include the client in goal setting and to prioritize their goals, but that they felt powerless to do so because of organizational processes that overruled their intentions to be client-centred.

Advocacy literature also aids our understanding of why most therapists accepted and/or prioritized organization-determined goals over their clients. Although client-centred practice espouses working in partnership with clients, including advocating for clients’ goals, organizational challenges have been identified as constraints to this advocacy and client-centred practice (Dhillon, Wilkins, Law, Stewart & Tremblay, 2010). Dhillon and colleagues (2010) reported that these constraints exist, as not all health care systems and professions espouse client-centred care. The adversarial nature of advocacy, discomforts with the power differentials between clients and health care professionals, and lack of training in advocacy strategies were reported to be additional reasons that made advocating for clients challenging (Dhillon et al., 2010; Townsend, 1998). Other authors have suggested that due to the potential conflicts with the workplace, occupational therapists cannot act as advocates without risking their jobs, even if it is in the best interest of their client to do so (Tannous, 2000; Whalley Hammell, 2007).
Findings (Chapters 4 & 5) suggest that who decides the goal (i.e. the goal source) also impacts which goals are privileged. A recently developed goal setting framework by Scobbie and colleagues (2011) acknowledged that goals may be set by therapists or self-set by clients, but did not recognize the role that organization determined goals (e.g. discharge) play in goal setting processes. Findings from this dissertation suggest that the impact of organization determined goals should be considered in such frameworks, due to their powerful influences on goal setting practices.

Organizations’ focus on efficiencies and outcomes may explain conflicts arising from traditional goal setting practices. Questions about the relevance of these traditional goal-setting rubrics appeared throughout this research. For example, therapists were found to be distracted from clients’ verbal responses in favour of following COPM protocols, and reported frustrations with clients’ raising goals that they viewed as unachievable or unrealistic in relation to SMART goals. All therapists in this study reported using at least one component of the traditional SMART rubric (e.g., time bound) and several declared having difficulty accepting clients’ goals because they were neither realistic nor achievable in the therapist’s view. Therapists who embraced client determined goals, reflected that judging the realism of client goals was not appropriate as doing so took away the client’s hope. In addition, the nature of the client’s impairments and recovery made it difficult to predict what he or she might be able to achieve in the future. Previous studies have also questioned the value of using the SMART goal rubric for individuals with impairments due to ABI (e.g., Hersh et al. 2012; Sherratt et al., 2011) and modifications have been suggested for individuals with communication impairments (Hersh et al., 2012). Hersh and colleagues developed a framework for goal setting in aphasia rehabilitation using SMARTER goals (Shared, Monitored, Accessible, Relevant Transparent, Evolving and Relationship-centred). Playford and colleagues (2009) highlighted issues relating to achievability, measurability and realism of goals. Revising client goals so that they were achievable and realistic was thought to be paramount to the clinician not listening to the client’s goal or taking hope away from the client. Thus, they recommended that goals be ambitious or ‘possibly achievable’. Findings from my studies agree with the Playford recommendations as the majority of therapists reported struggles with the achievability and realism aspects of SMART goals setting.
Given the challenges to enabling client participation and using clients’ goals, it is not surprising that therapists in my studies prioritized organizational procedures (e.g., COPM interview structure) and processes (organization-determined goals). By examining my results through the lens of organizational psychology, advocacy and empowerment perspectives, I have developed hypotheses regarding why this may be occurring. My primary hypothesis is that therapists may be lacking the advocacy skills necessary to establish client-determined goal setting within organizations that are not inherently supportive of this practice. This is discussed more in the next section in relation to how therapists successfully embraced client-determined goals.

6.3.2 Embracing client-determined goals: values & implementation strategies

Considering how the minority of therapists in my studies overcame these aforementioned challenges to embrace client-determined goals offers an understanding of how to work toward more client-centred goal setting practice. This section will describe the values and beliefs held, and strategies used by, therapists who embraced client determined goals. Values and beliefs are listed in Table 4 and discussed in more detail in relation to the existing literature below. These were drawn from the results of the grounded theory study described in Chapters 4 and 5. The details column offers elaborations of each value/belief for the therapist to consider.

<table>
<thead>
<tr>
<th>Values &amp; Beliefs</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>The client decides on their goal.</td>
<td>• The goal source is the client.</td>
</tr>
<tr>
<td>Clients are capable participants.</td>
<td>• The therapist’s job is to figure out how to engage their client in the process.</td>
</tr>
<tr>
<td>Client’s goals may be realistic and achievable at some point in time.</td>
<td>• Consider that the client may continue to progress long after their participation in therapy.</td>
</tr>
</tbody>
</table>
| Client goals are prioritized. | • Client goals are prioritized above others.  
|                           | • Consider how working toward client goals will contribute to organization goals. |
| Sufficient time is required and will be taken to enable client participation. | • Recognize that goal setting is an integral part of therapeutic intervention and requires time. |
Therapists who embraced client-determined goals believed that the client could and would determine their goal. They believed that the clients were capable participants despite the severity of impairment. Enabling the client to decide their rehabilitation goals is a fundamental tenet of client-centred practice (Townsend, 1997), is supported by theories of self-regulation (Carver & Scheier, 2000; Hart & Evans, 2006; Siegert et al., 2004; Zimmerman, 2000), social-cognitive behaviour (Bandura, 1991), and plays a role in the development of self-awareness (Bergquist & Jacket, 1993) and improved self-efficacy (Bandura, 1991; Locke & Latham, 2013). Self-regulation and social cognitive theories contend that active participation in re-learning to set goals following brain injury is an important part of recovery. Behaviour is goal driven and an individual’s goals help to energize and direct activities. For these reasons, therapists should be eliciting goals that are client-determined as it explicitly encourages re-learning of this skill (Cicerone et al., 2006; Ertzgaard et al., 2011).

Therapists, who embraced client-determined goals, believed that at some point in time, clients’ goals might be realistic and achievable. These beliefs appear to have important implications for individuals who may lack awareness due to their brain injury. Rather than simply setting goals for the client, therapists who embraced client determined goals reported that clients developed awareness and self-confidence by participating in goal setting and pursuit of their own self-set goals. This belief is supported by empirical research by Gauggel and colleagues (2002) who demonstrated that individuals with brain injury are indeed capable of self-setting realistic goals. In contrast, using assigned goals with individuals with brain injury has been shown to decrease motivation and increase dependency (Bergquist & Jacket, 1993). Therapists who embraced client-determined goals may have been implicitly addressing the development of clients’ self-efficacy beliefs (i.e. belief in one’s capability and competence) by giving credence to their wishes, opinions and thoughts by enabling them to express themselves and to participate. Self-efficacy beliefs have also been linked with positive adjustment in brain injury recovery (Cicerone & Azuley, 2007). These therapists understood the social importance of using a client-centred goal setting framework by enabling clients to understand that the goal and their progress toward that goal was their own and not understood abstractly as the therapists’ (Ylvisaker, Turkstra & Coelho, 2005).
Prioritizing the clients’ goals above others demonstrates how these therapists truly espoused client-centred practice principles (Townsend, 1997). They were able to do this by using multiple strategies to engage and understand the client and his or her needs. These strategies, designed for use by therapists, are described in Table 5. Results from Chapters 3, 4 and 5 informed the development of this table which summarizes facilitative strategies identified in this dissertation. The details column provides additional elaboration of each strategy.

Table 5 Practical strategies used by therapists who embraced client-determined goals

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Details</th>
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<tbody>
<tr>
<td>Establish and use a consistent process.</td>
<td>• Adapt this process to suit the individual.</td>
</tr>
<tr>
<td></td>
<td>• Incorporate goal setting into assessment.</td>
</tr>
<tr>
<td></td>
<td>• Ensure that someone is in charge of maintaining, updating and training.</td>
</tr>
<tr>
<td>Provide an introduction to goal setting.</td>
<td>• Explain the process of rehabilitation, role of occupational therapy, client, &amp; family, expectations, scheduling.</td>
</tr>
<tr>
<td></td>
<td>• Provide this information in writing.</td>
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<tr>
<td></td>
<td>• Explain what goals are and how they will be used.</td>
</tr>
<tr>
<td>Take the time necessary to enable client engagement.</td>
<td>• Talk about goals while engaging the client in occupational performance assessment.</td>
</tr>
<tr>
<td></td>
<td>• Provide sufficient time for clients to respond.</td>
</tr>
<tr>
<td>Emphasize occupation.</td>
<td>• An occupational approach is used.</td>
</tr>
<tr>
<td></td>
<td>• Refer to goals using activity and participation rather than impairment.</td>
</tr>
<tr>
<td>Listen to the client.</td>
<td>• Ensure that you understand what the client has communicated to you, by using reflective listening techniques (making clarifying statements, reflecting back what the client has said).</td>
</tr>
<tr>
<td>Advocate for the client and their goals.</td>
<td>• Establish the client’s goals and refer to them during intervention.</td>
</tr>
<tr>
<td></td>
<td>• Document the client’s goals.</td>
</tr>
<tr>
<td></td>
<td>• Talk about client’s goals with other team members.</td>
</tr>
</tbody>
</table>
The importance of listening, providing time, advocacy, and focusing on occupation will be examined in relation to existing literature. Establishing a consistent process will be discussed in limitations and future directions.

“Really listening” to clients was found to be an important strategy used by therapists who embraced client-determined goals. That reflective listening, a core technique in motivational interviewing (Medley & Powell, 2010), was found to facilitate goal setting, (Chapter 3) suggests that given sufficient time, many individuals with brain injuries can determine their own rehabilitation goals. This finding aligns with those of Bright and colleagues (2012) who identified active and mindful listening as a key strategy for understanding what is meaningful to clients. In contrast, in the case of my research (Chapter 5), following a specific goal setting rubric that aligns toward organization-determined goal setting distracted from really listening and fully exploring what the client has to say.

Therapists who embraced client-determined goals allowed individuals with brain injury sufficient time for identifying their own goals. Lack of time has been previously recognized as a barrier to client inclusion in goal setting (Holliday et al., 2007; Parry, 2004). Parry (2004) and Wilkins and colleagues (2001) recognized that time spent talking about goals was time taken away from intervention. In our study, all therapists perceived obligations to demonstrate time efficiency and focus on outcomes (e.g., discharge). While the majority prioritized these obligations, therapists who embraced client-determined goals took the necessary time to enable clients to participate in goal setting. There is little rehabilitation literature that addresses issue of time with respect to goal setting, although a suggested time frame for completion of the Canadian Occupational Performance Measure is thirty minutes (Law et al., 1998). The therapists in our study who embraced client determined goals all indicated that goal setting could be done within a similar time frame.

Therapists who embraced client-determined goals appeared to understand and implement advocacy strategies. They established and talked about the client’s occupation based goals in team meetings despite reported discomforts or team preferences for using impairment-based goals. According to Restall and colleagues’ (2003) framework of strategies for implementing client-centred practice, these therapists are practicing advocacy at the practice setting level or a
micro/meso level. By doing this, these therapists reported being able to get their managers to ‘buy in’ to occupational goals and interventions, which in effect translated this advocacy to the managerial level, or a higher (meso or macro) level. It may be that therapists who were less able to embrace client-determined goals were not as skilled in understanding and implementing advocacy strategies at all levels. Dhillon and colleagues (2010) suggested that it is the value that occupational therapists place on advocacy that enables them to persevere on the client’s behalf despite the challenge of advocacy in the workplace. Restall and Ripat (2008) found that some occupational therapists in their survey study on advocacy placed such high value on advocacy that they were willing to take on these challenges in spite of adversity. In contrast, my results suggest that very few therapists feel prepared, or are willing to take on these challenges.

Therapists who embraced client determined goals used an occupation-based approach to goal setting. This meant they helped clients identify goals in their own words, using language that described activities in the real world. In this way, goals were meaningful and belonged to the client not to the therapist (e.g., I want to see Justin Bieber vs. to improve strength and endurance and insight). Unfortunately the majority of therapists interviewed in my research did not talk about occupational goals, but rather impairment based goals and struggled to implement client-centred goal setting practices. Use of impairment-based goals has been found by other researchers examining client-centred goal setting. Doig and colleagues (2009) found that occupational therapists identified goals at the level of impairment and viewed them as stepping-stones toward independence. However these goals did not match those perceived by the clients. The health system focus on impairments and deficits, and therapists’ struggles to overcome these organization parameters enables us to understand why this might happen.

To optimize participation by individuals with ABI in setting their own rehabilitation goals, a more client-centred goal-setting stance is needed. Adopting the assumptions underlying embracing client goals may enable therapists to take a step in that direction. Minimizing conflict between impairment based goals and occupation-based goals by choosing to pursue occupation-based goals should be considered by occupational therapists in brain injury rehabilitation.
6.4 Limitations

While this dissertation offers some understanding about goal setting in ABI rehabilitation, there are limits to this work. The research in the communication study (Chapter 3) was exploratory and used small samples. While the findings were consistent with previous research, the generalizability is limited for a number of reasons. There were only three occupational therapists in the sample, and all interviews were conducted with individuals with ABI sequellae that were chronic. How these findings would apply to individuals with communication deficits due to stroke, or those in more acute stages of recovery is not known.

The communication analysis study examined interviews that were part of a larger research project and took place in a quiet interview room with only the therapist and client present. As such, conversational behaviours may reflect communications differently than those that might be found in typical rehabilitation clinics where client-therapist communication takes place in environments that are noisier and with more distractions present. However, using conversation analysis in its pure sense, in an actual clinical setting, may offer additional insights as to client-therapist communication during goal setting in this population, and be a useful way to inform future research.

Goal setting throughout this dissertation was examined through the lens of occupational therapists. While this view is important for this profession’s perspective, it does not necessarily represent the views of other rehabilitation professionals. Further, all participants were female occupational therapists working in neurorehabilitation and in Canada. Whether male therapists have different perceptions of goal setting is not known. Client views were not solicited as their views have been sought extensively in other studies (Hersh et al., 2012; Holliday et al., 2007; Larson Lund et al., 2001; Laver et al., 2010; Lawler et al., 1999; McEwan, Polatajko, Davis, Huibregts & Ryan, 2010). However, these other studies did not examine clients’ perspectives of occupational therapy exclusively.

Developing the interpretation of the data in the grounded theory study (Chapters 4 & 5) led to an examination of advocacy, empowerment and client-centeredness. These linkages resulted in a global interpretation of categories of data that may be reflective of occupational therapy in
general rather than specific to occupational therapy with individuals with acquired brain injury. Although I alluded to links between therapists’ experiences of conflicts and the model of care in which they practiced, I did not explore these connections with specific health care models (e.g., medical model vs. private insurance models). This may be useful in developing theoretical categories into a more substantive theory. Data were collected and analyzed from the level of the practice setting consistent with Restall and colleagues’ (2003) client-centred strategies framework. As such, how occupational therapists could effect change at the organization levels and beyond (e.g., policy levels) levels was not addressed.

6.5 Future Directions & Clinical Implications

6.5.1 Future directions

The data in my dissertation suggest that the development and evaluation of consistent goal setting practices that prioritize the client’s goals and embrace client-centeredness is needed. To do this, a better understanding of the factors that enabled therapists to embrace client determined goal setting and time factors would be useful. Further study of the issues that appeared to conflict with this goal setting means would also aid our understanding of how to shift therapists practice toward embracing client-determined goal setting.

One hypothesis generated from the grounded theory study is that characteristics of the individual therapist may be an influential factor in embracing client-determined goals. Further examination of the personalities, and more detailed exploration of the training and previous experiences of these therapists may aid our understanding.

The issue of time, and more specifically, lack thereof, has been identified by therapists in this, and other studies as a barrier to goal setting. However, this issue has not been studied in depth. How much time is necessary to engage the client in goal setting? Is including the client in goal setting really as time consuming a process as therapists perceive? Understanding more about how time factors into goal setting may also be addressed by development and evaluation of standard goal setting protocols.
Hypotheses that arose in Chapter 3 regarding therapist-client communication require additional study. A better understanding of the reasons for the observed lack of uptake by therapists during goal setting is warranted. It is hypothesized that lack of uptake, such as lack of acknowledgement of client response, has considerable impact on what the client will share with the therapist, thus affecting what information is obtained during the goal setting interview. How topic shifts should be managed in the context of goal setting interviews is also not clear and requires further study. For example, perhaps clients should be asked if they are ready to move on before shifting topics. Further characterization of conversational pauses may provide guidance about managing topic shifts as it may elucidate the optimal time needed for individuals with chronic brain injury to respond to interview questions.

6.5.2 Clinical Implications

There are several clinical implications from my research. First, including the client with brain injury in client-determined goal setting is possible despite level of impairment and within different health care models that may or may not be client-centred. Second, that the types of conversation behaviours used by therapists affect client-therapist communication during goal setting with individuals with ABI. Third, that organizations influence occupational therapists’ goal setting practices in brain injury rehabilitation.

From my research, and that of others, it is clear that individuals with ABI are capable of participation in goal setting, but therapists must overcome considerable struggles to facilitate this participation. Adopting strategies used by therapists who embraced client-determined goals and facilitative conversational behaviours may be helpful. However, therapists also need to value client participation enough to overcome challenges to advocate for client-determined goal setting within the workplace. They need to make some basic assumptions about goal setting that would enable them to take a more client-centred approach. Namely, assuming that the client is capable of participating in goal setting in spite of the severity of impairment. They need to decide that the client will determine their rehabilitation goals and accept that their job is to enable them to make this decision.
Attending to the conversational behaviours used in goal setting may help therapists to develop improved skills in goal setting interviews, thus facilitating client participation. Using acknowledgments and affirmations and reflective listening, and giving the client sufficient time to respond are recommended. In contrast, recognizing instances of lack of uptake will enable therapists to reflect on why this may be occurring, and to make preventative changes.

On a larger scale, addressing how organizations can support a client-centred, occupational focus on activity and participation in rehabilitation, rather than impairments, may offer another way to enable client inclusion in goal setting. Establishing mechanisms to integrate and align multiple goals, and using an occupational focus may enable therapists to better embrace client-determined goal setting. Education at administrative/managerial levels for non-occupational therapists may be useful in garnering support at that level for client-centred practices.

Therapists may benefit from additional training in advocacy related to goal setting to help them overcome these organizational challenges. According to Dhillon and colleagues (2010), occupational therapists reported learning advocacy on the job. Changes to how advocacy skills are learned may be needed. Perhaps providing specific attention to advocacy training during professional education that addresses development of skills at micro and meso levels will better prepare therapists for clinical advocacy related to client-centered goal setting that occurs on an individual client basis.

6.6 Conclusion

The idea for this dissertation arose from my own clinical struggles with goal setting in an ABI practice and my inherent belief that these clients could and should be setting their own rehabilitation goals. My intent was to develop clinically useful recommendations for occupational therapists to facilitate goal setting with this clientele. To address identified gaps in the literature, I examined what occupational therapists say that facilitates or hinders goal setting in initial interviews. Next, I explored how occupational therapists facilitated goal setting in a variety of practice settings with clients with cognitive impairments due to with ABI. I was surprised to find that my assumption, that all therapists did client-centred goal setting, was unfounded as many therapists were not doing this and their comments illustrated that client-
centred goal setting was not a straight forward process at all. Throughout my research, I was astounded at the influence that organizational process and procedures had on grassroots occupational therapy practice. While I addressed the major questions that I began this PhD journey with, I uncovered unexpected practice challenges in goal setting along the way. I also realized that my objective at the outset, for a tidy list of recommendations for facilitating goal setting in ABI, would require work well beyond the scope of my PhD research.

In summary, the results from this dissertation indicate that occupational therapists struggle with implementing client-centred practices with respect to goal setting with individuals following brain injury. Further, findings suggest that it is the therapists who may be uncomfortable in goal setting due to being ill equipped in the advocacy skills needed to embrace client determined goals within constraints posed by organizations. In my view, it is imperative that therapists develop practice strategies that enable them to embrace client-determined goals and subsequently enhance client participation in goal setting. Acknowledging the goal source and goal setting means may be one place to begin, as well as giving clients sufficient time to provide their input and really listening to their responses. More education about advocacy on micro and meso levels may also enable improved client-centred goal setting. On a broader scale, the results from this dissertation raise awareness of the importance of goal setting, that how what we say or don’t say matters, and how our beliefs, values, assumptions and the context within which we work shape how we facilitate goal setting in brain injury rehabilitation.
References


Canadian Institute for Health Information (August 2006). Head injuries in Canada: A Decade of Change. *Analysis in Brief: Taking Health Information Further*. Ottawa: CIHI.


Appendices

Appendix A Interview guide

Informed consent obtained: YES  NO

BACKGROUND INFORMATION

FACILITY TYPE:

POSITION:

TRAINING/CLINICAL EXPERIENCE:

INTERVIEW QUESTIONS & PROMPTS

1. Please describe your current goal setting practices.
   a. Who has input into the process? Client, family, other staff?
   b. Please describe any formal assessments/interviews that you use for goal setting.
1. Do you use these as per the intended protocol or have you adapted them? How? Why?
   c. How long does this process take?
   d. What is the client’s specific role in goal setting?

2. Do clients’ cognitive impairments impact the goal setting process? Please elaborate.

3. How does your goal setting practice relate to client centred practice?

4. What role do goals play in your intervention?

5. What works well with your current goal setting practice?

6. What would you do differently? Why? Are there any barriers to goal setting in your particular work context?

7. The following problems have been reported as barriers to goal setting in the literature. How do these affect your practice?
   a. Lack of time
   b. Lack of expertise
   c. Lack of client involvement
   d. Lack of client knowledge about goal setting/rehabilitation
   e. Cognitive impairment
   f.

8. Please describe a typical goal setting scenario in your work place.
Appendix B  Clinical Information & Consent Form

CLINICAL INFORMATION & CONSENT FORM

TITLE: An exploration of goal setting practices in neuro-rehabilitation

INVESTIGATORS: Drs. Deirdre Dawson, Guylaine Le Dorze, Gary Turner, Helene Polatajko and Anne Hunt (PhD candidate)

Purpose
You have been asked to participate in a study investigating goal setting practices in neuro-rehabilitation. We want to find out what factors are useful in enabling individuals with brain injury to participate in goal setting during their rehabilitation. We also want to determine if there are factors that prevent these individuals from participating in goal setting. We hope that the knowledge gained through this study will contribute to future care and treatment of others. Please read this information sheet carefully to make your decision about whether you would like to participate.

Procedures
If you agree to participate, you will be contacted by one of the researchers (Anne Hunt) to schedule an interview. The interview can be done at a place and time convenient to you. The interview will take approximately 60 minutes. The interviews will be audio taped so that the researchers can review each interview in detail to make sure that they have your answers
An exploration of goal setting practices in neuro-rehabilitation

recorded accurately. These audiotapes will be identified only with a number and will be stored in a locked cabinet. If you agree, the audiotapes or parts of the transcription (written version) may also be used for educational purposes (e.g., educating occupational therapy students about this technique, presentations at professional conferences). You will be given an honorarium in appreciation of your participation.

Risks and Benefits

There are no known risks or discomforts associated with participating in the interview. While your participation will not have any direct benefit to you at this time, your opinions will contribute to the future treatment of individuals with brain injury and education of health care professionals.

Confidentiality

All information obtained during the study will be held in strict confidence. No names or identifying information (e.g., phone number) will be recorded on any transcript or the audiotapes nor used in any publications or presentations. All data and audiotapes will be kept in locked filing cabinets and/or password-protected computer files.

Your Rights

Your participation in this study is voluntary. You may decline to participate in this study, or you may withdraw from the study, at any time, and for any reason. Please be assured that the quality of healthcare you or your family receive either now or in the future through Baycrest will not be affected by your refusal to participate or your withdrawal from this study nor will there be any affect on your current place of employment.
Contact Information

Should you have any questions or concerns about the study, please call Anne Hunt at (416) 785-2500 ext. 3377. If you wish to contact someone not connected with the project about your rights as a research participant, feel free to call Dr. Ron Heslegrave, Chair of the Research Ethics Board at (416) 785-2500, ext. 2440.
Appendix C  Ethics Approvals

Notification of REB Approval

Date:  July 11, 2012
To:  Dawson, D.
Re:  An exploration of goal setting practices in neuro-rehabilitation (REB# 12-32)

Sponsor:  N/A
REB Review Type: Initial
REB Initial Approval Date:  July 9, 2012
REB Expiry Date:  July 9, 2013
Documents Approved: Study Protocol, Budget, ICF (Version #3, July 9, 2012)
Documents Acknowledged:  

The above named study has been reviewed and approved by the Baycrest Research Ethics Board. If, during the course of the research, there are any serious adverse events, confidentiality concerns, changes in the approved protocol or consent forms or any new information that must be considered with respect to the project, these should be brought to the immediate attention of the REB. In the event of a privacy breach, you are responsible for reporting the breach to the Baycrest REB and the Baycrest Corporate Privacy Office (in accordance with Ontario health privacy legislation – Personal Health Information Protection Act, 2004). Additionally, the Baycrest REB requires reports of inappropriate/unauthorized use of the information.

If the study is expected to continue beyond the expiry date, you are responsible for ensuring the study receives re-approval. The REB must be notified of the completion or termination of this study and a final report provided. As the Principal Investigator, you are responsible for the ethical conduct of this study.


Sincerely,

Rob Heslegrave, Ph.D.
Chair, Baycrest Research Ethics Board
PROTOCOL REFERENCE # 28038

August 15, 2012

Dr. Deirdre Dawson  Ms. Anne Hunt
DEPT OF OCCUPATIONAL THERAPY  DEPT OF OCCUPATIONAL THERAPY
FACULTY OF MEDICINE  FACULTY OF MEDICINE

Dear Dr. Dawson and Ms. Anne Hunt,

Re: Administrative Approval of your research protocol entitled, "An exploration of goal setting practices in neuro-rehabilitation"

We are writing to advise you that the Office of Research Ethics (ORE) has granted administrative approval to the above-named research protocol. The level of approval is based on the following role(s) of the University of Toronto (University), as you have identified with your submission and administered under the terms and conditions of the affiliation agreement between the University and the associated TAHSN hospital:

- Graduate Student research - hospital-based only
- Storage or analysis of De-identified Personal Information (data)

This approval does not substitute for ethics approval, which has been obtained from your hospital Research Ethics Board (REB). Please note that you do not need to submit Annual Renewals, Study Completion Reports or Amendments to the ORE unless the involvement of the University changes so that ethics review is required. Please contact the ORE to determine whether a particular change to the University's involvement requires ethics review.

Best wishes for the successful completion of your research.

Yours sincerely,

[Signature]

Daniel Gyewu
REB Manager
PROTOCOL REFERENCE # 29213

July 17, 2013

Dr. Deirdre Dawson  Ms. Anne Hunt
DEPT OF OCCUPATIONAL THERAPY DEPT OF OCCUPATIONAL THERAPY
FACULTY OF MEDICINE FACULTY OF MEDICINE

Dear Dr. Dawson and Ms. Anne Hunt,

Re: Administrative Approval of your research protocol entitled, "An analysis of communication during goal setting in acquired brain injury"

We are writing to advise you that the Office of Research Ethics (ORE) has granted administrative approval to the above-named research protocol. The level of approval is based on the following role(s) of the University of Toronto (University), as you have identified with your submission and administered under the terms and conditions of the affiliation agreement between the University and the associated TAHSN hospital:

- Graduate Student research - hospital-based only
- Storage or analysis of De-identified Personal Information (data)

This approval does not substitute for ethics approval, which has been obtained from your hospital Research Ethics Board (REB). Please note that you do not need to submit Annual Renewals, Study Completion Reports or Amendments to the ORE unless the involvement of the University changes so that ethics review is required. Please contact the ORE to determine whether a particular change to the University's involvement requires ethics review.

Best wishes for the successful completion of your research.

Yours sincerely,

Daniel Gyewu
REB Manager