Understanding current goal-setting practices in an inpatient rehabilitation service: A qualitative case study.

Amanda Baker BPhty, MCommRehab, GDNR, Masters of Medical Research Candidate

School of Allied Health Science

Griffith University

Submitted in fulfilment of the requirements of the degree of Masters of Medical Research

Date: 20/11/2018
Abstract

Goal-setting is common practice in rehabilitation services, both locally in Australia and internationally (Plant & Tyson, 2017). It is recommended that goal-setting is client-centred and that clients should be involved in the negotiation of rehabilitation goals (National Institute for Health and Clinical Excellence, 2009; National Stroke Foundation, 2010; Smith et al., 2016). Goals set in rehabilitation should be specific and be used to direct rehabilitation activities (Levack, Dean, Siegert, & McPherson, 2006). Barriers to the implementation of client-centred goal-setting practice have been identified in the literature internationally (Plant, Tyson, Kirk, & Parsons, 2016) however, only one study has reviewed this in Queensland Australia (Leach, Cornwell, Fleming, & Haines, 2010; Plant, Tyson, Kirk, & Parsons, 2016). Implementing client-centred goal-setting practices is a current focus within the Queensland Rehabilitation Clinical Network, however in order to move towards this aspiration it is necessary to understand current practice. This thesis therefore aimed to review the current goal-setting practice in one varied case mix inpatient rehabilitation unit in Queensland.

Methods: This program of research utilised a qualitative case study design to describe the goal-setting practices through three studies in a single inpatient rehabilitation unit in Queensland, Australia (Baxter & Jack, 2008). A theoretical conceptual framework was used to guide the selection of data collection tools and data sources. Multiple data sources enhanced the understanding of the goal-setting phenomena in the rehabilitation context. Study 1 utilised medical record auditing to analyse the structure and process of goal-setting in rehabilitation. Study 2 aimed to explore the client-centredness of goal-setting practices and the level of client involvement in the process through structured interviews. Finally study 3 utilised a
focus group to explore clinicians’ perspectives and experiences of implementing client-centred goal-setting practices in the rehabilitation setting.

**Results:** Goal-setting was undertaken with all rehabilitation clients attending the service during the data collection period. Goal-setting in this rehabilitation unit was undertaken by individual disciplines with the client present. Goal-setting interactions have previously been observed to be either therapist controlled, therapist led or patient focussed (Leach et al., 2010). Although clients voiced that goals were client-centred interactions were predominantly therapist-led. Key findings from study 1 identified that the majority of the goal-setting completed in the unit was undertaken by physiotherapists and occupational therapists. Goals were set predominantly at an activity level and lacked specificity. Rehabilitation goals audited did not regularly direct the rehabilitation activities conducted with clients. Clients in study 2 identified a high level of client-centredness with the lowest scores reported relating to their participation in the process. Clinicians in study 3 identified barriers to implementing client-centred goal-setting in the rehabilitation service at the level of the client, the clinician, the team and the organisation. These barriers included a lack of a shared vision, difficulty in knowing what and how to goal set, barriers related to the organisational agenda and team processes.

**Conclusion:** This study has utilised a theoretically informed framework to reviewing current goal-setting practices in rehabilitation. This framework used theory to inform the selection of multiple data sources to review the mechanisms and constructs of current goal-setting practice ensuring that a comprehensive understanding of the phenomena under investigation could be obtained. Key constructs affecting the
mechanisms of goal-setting such as including the client, goal specificity, action planning and feedback would benefit from improvement in this rehabilitation unit.

Similar to other published findings (Holliday, Antoun, & Playford, 2005; Plant & Tyson, 2017; Scobbie, Duncan, Brady, & Wyke, 2015) goal-setting practices in this rehabilitation setting are not achieving standards aspired to in theoretical models. The findings from this study are consistent with previously published international literature indicating that this literature is likely relevant also to inpatient Queensland varied case mix rehabilitation wards and would be useful to inform implementation studies (Plant & Tyson, 2017; Plant et al., 2016; Rose, Rosewilliam, & Soundy, 2017). Future goal-setting implementation studies would benefit from focussing on the skills and knowledge of the clinician, preparing clients for the goal-setting experience in rehabilitation and advocating for changes at an organisational level to support these practices.
Statement of originality

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

Amanda Baker

Date: 16/11/18
# Table of Contents

1.0 Introduction ................................................................................................................................. 11  
1.1 Defining Goal-Setting .................................................................................................................. 11  
1.2 Defining the Rehabilitation Context ......................................................................................... 12  
1.3 Review of Goal-setting literature ............................................................................................... 14  
1.3.1 Effectiveness of goal-setting in rehabilitation .................................................................... 15  
1.3.2 Mechanisms of goal-setting in rehabilitation ..................................................................... 18  
1.3.3 How is goal-setting structured? ......................................................................................... 28  
1.3.4 Goal-setting experiences - Clients and clinicians ............................................................... 36  
1.3.5 Barriers and facilitators ...................................................................................................... 38  
1.4 Summary and Study Aims ......................................................................................................... 40  
2.0 Methods .................................................................................................................................... 43  
2.1 Study Design and methodology ................................................................................................. 43  
2.1.2 Conceptual framework ....................................................................................................... 44  
2.1.3 The Case ............................................................................................................................ 44  
2.1.4 Participatory Approach ....................................................................................................... 45  
2.1.5 Benefits of study design ..................................................................................................... 46  
2.1.6 Propositions ....................................................................................................................... 46  
2.2 Project Sub-studies ..................................................................................................................... 46  
2.3 Study 1 ....................................................................................................................................... 48  
2.3.1 Design ............................................................................................................................... 48  
2.3.2 Materials ............................................................................................................................ 48  
2.3.3 Participants ......................................................................................................................... 50  
2.3.4 Procedure .......................................................................................................................... 51  
2.3.5 Data Analysis ..................................................................................................................... 52  
2.4 Study 2 ....................................................................................................................................... 52  
2.4.1 Design ............................................................................................................................... 52  
2.4.2 Materials ............................................................................................................................ 53  
2.4.3 Participants ......................................................................................................................... 54  
2.4.4 Procedure .......................................................................................................................... 54  
2.4.5 Data Analysis ..................................................................................................................... 55  
2.5 Study 3 ....................................................................................................................................... 56  
2.5.1 Design ............................................................................................................................... 56  
2.5.2 Materials ............................................................................................................................ 56
Rehabilitation goal-setting: a case study

2.5.3 Participants ................................................................. 56
2.5.4 Procedure ........................................................................... 57
2.5.5 Data Analysis ..................................................................... 57
2.6 Data Triangulation ................................................................. 58
2.7 Ethical Considerations ........................................................... 58
3.0 Results .................................................................................. 61
3.1 Study 1 - How is goal-setting structured? .............................. 61
  3.1.1 Participants ...................................................................... 62
  3.1.2 Mode of goal-setting delivery ............................................. 62
  3.1.3 Classification of Goals ...................................................... 63
  3.1.4 Goal Attributes ............................................................... 64
3.2 Study 2 - Client-centredness of goals set ............................... 67
  3.2.1 Participants ...................................................................... 67
  3.2.2 Client-centredness of Goal-setting ..................................... 68
3.3 Study 3 – Clinicians’ Experiences of Client-centred Goal-setting ............................................................................. 71
  3.3.1 Participants ...................................................................... 71
  3.3.2 Clinicians’ perspective of client-centred goal-setting .......... 71
3.4 Summary .............................................................................. 82
4.0 Discussion .............................................................................. 84
  4.1 Summary of the findings across the three studies ................. 85
    4.1.1 Study 1- Current structure of goal-setting in inpatient rehabilitation .... 85
    4.1.2 Study 2 – The level of client-centredness and client involvement in goal-setting..... 90
    4.1.3 Study 3 - Clinicians’ experience of implementing client-centred goal-setting .... 92
  4.2 Synthesis of study findings .................................................... 99
  4.3 Clinical implications ............................................................. 105
  4.4 Study Limitations ................................................................. 106
  4.5 Further research ................................................................... 107
  4.6 Summary .............................................................................. 108
Appendices .................................................................................. 110
  Appendix 1 ............................................................................. 110
  Appendix 2 ............................................................................. 119
  Appendix 3 ............................................................................. 135
  Appendix 4 ............................................................................. 136
References .................................................................................. 137
List of Tables

Table 1: Mechanisms and relevant constructs for goal-setting in rehabilitation 20
Table 2 Classification of goals using the ICF 64
Table 3 Presence of goal attributes for each goal 65
Table 4 Occasions of action and coping planning by discipline 66

List of Figures

Figure 1 Goal-setting and Action Planning Framework 30
Figure 2. Study participants 47
Statement of acknowledging extent and nature of assistance.

I would like to acknowledge the support and assistance received by myself throughout the course of this Masters program of research. I would like to thank and acknowledge the full funding of the State-wide Rehabilitation Clinical Network (SRbCN), Queensland Health in supporting me to conduct this project. I would also like to acknowledge Aleksandra Karwaj (Goal-setting working group member, SRbCN) for her assistance in coding the qualitative data presented in this Master’s thesis.

I would especially like to thank my supervisors Associate Professor Petrea Cornwell (Griffith University) and Professor Norman Morris (Griffith University) for the expertise and support that I have throughout my research studies.
Introduction
1.0 Introduction

There is clear consensus that client-centred goal-setting is a core principal in rehabilitation services (Siegert & Levack, 2015). However, the evidence to suggest that goal-setting is effective in rehabilitation remains low, with limited research exploring how or why goal-setting is effective in rehabilitation populations (Levack et al., 2015). This may be due to complexities of research design in rehabilitation settings, or to a lack of theoretical basis to goal-setting interventions and models implemented (Scobbie, Dixon, & Wyke, 2011; Siegert & Levack, 2015). It has been shown that rehabilitation goal-setting is more effective and preferred by clients when conducted in a structured format (Levack et al., 2015; Rose et al., 2017). Despite the current state of research evidence to support the effectiveness of goal-setting and rehabilitation there are many clinical guidelines that recommend it as a good practice principle (National Institute for Health and Clinical Excellence, 2009; Stroke Foundation, 2017). Consequently goal-setting is practiced informally and in variation across many rehabilitation settings.

1.1 Defining Goal- Setting

Before further review of the goal-setting literature it is pertinent to first describe and define what is meant by goal-setting within this thesis. This need arises due to the fact that within the goal-setting literature terminology is often used inconsistently, creating confusion about what constitutes a goal and goal-setting in rehabilitation. For consistency, this research study will utilise the rehabilitation goal and goal-setting definitions provided by Levack et al (2015).

Levack and colleagues (2015) describe a rehabilitation goal as a “desired future state to be achieved by a person with a disability as a result of rehabilitation activities” (p.9). As a part of this definition these authors advocate for rehabilitation goals that are
Rehabilitation goal-setting: a case study

intentionally selected, created and shared among the team, the client and family. Goal-setting is considered the negotiation and establishment of these rehabilitation goals that direct activities (Levack et al., 2015). This thesis will also utilise the definitions proposed by Levack and colleagues (2015) to describe goal pursuit. Goal pursuit refers to the additional goal-related activities that should occur when goal planning (Levack et al., 2015). In this thesis examples of goal related activities include; action planning, identification of barriers, coping planning, taking action, appraising actions and goal progress and providing feedback (Scobie et al., 2011).

Definitions of an action plan and a coping plan have been described by Lesley Scobie and colleagues (2011). An action plan is something that details how you plan to reach your goal, this may include stepping stones or homework that clients can work towards outside of therapy sessions. The action plan should include detailed information about what has to be done, where, who with, when and how often it needs to be done. A coping plan is defined as a pro-active plan that will help to address barriers that arise in completing the action plan. Appraisal and feeding back is another activity related to goal pursuit and includes the appraisal of the action plan completion as well as appraisal of goal progress. Appropriate feedback then allows adaptation or progression of the actions to continue towards goal achievement.

1.2 Defining the Rehabilitation Context

A rehabilitation setting is a unique physical and social environment therefore, it is important to understand the context of rehabilitation and the setting in which it occurs. Rehabilitation as defined by the World Health Organisation (2017) is “a set of interventions designed to optimize functioning and reduce disability in individuals with health conditions in interaction with their environment...Rehabilitation thus maximizes people’s ability to live, work and learn to their best potential” (p.1).
Rehabilitation settings are a complex social phenomenon, as they include a variety of health professionals, clients and families who are required to work together to achieve positive client outcomes. This all occurs within a specific organisational and environmental context that can impact the phenomenon. A rehabilitation healthcare team can include over 20 different professionals including; administration officers, dieticians, diversional therapists, exercise physiologists, medical officers, music therapists, neuropsychologists, nurses, occupational therapists, operational officers, orthotists, pharmacists, physiotherapists, prosthetists, psychologists, rehabilitation assistants, rehabilitation engineers, recreational officers, social workers and speech pathologists. Whilst most rehabilitation clients will not be involved with all healthcare professionals it is common for clients to be receiving input from 5-10 of these professionals at any one time. The most common members of a rehabilitation service within the Australian context are: dietitians, medical officers, nurses, occupational therapists, physiotherapists, psychologists, social workers and speech pathologists.

The rehabilitation setting can also differ in terms of its focus (e.g. specialist versus generalist) and context (e.g. inpatient versus community-based). Within Queensland there are only a few specialist rehabilitation services with the majority considered generalist services that vary in their case mix of clients. Nationally data on the case mix of inpatient rehabilitation services is collected by the Australian Rehabilitation Outcome Centre (AROC). Their most recent report (2017) described the nature of rehabilitation services within the country (Australian Health Outcomes Collaboration, 2017). It was reported that public health facilities provide the largest proportion of rehabilitation episodes of care to clients, and the focus of rehabilitation was largely related to reconditioning following a medical event, recovery following orthopaedic fracture, or recovery following stroke.
Internationally there have been many studies investigating goal-setting as a core construct of rehabilitation for clients recovering from stroke, TBI, chronic disease, mental health and musculoskeletal disorders. In Queensland, there has been only one study undertaken over eight years ago, investigating clinicians’ perspectives of implementing goal-setting in a mixed population inpatient rehabilitation unit (Leach et al., 2010). This previous study focussed on the approach therapists took to goal-setting in rehabilitation but did not review the process or nature of goals actually set with clients. Evaluation of client involvement in goal-setting and resultant goals set in rehabilitation is important to consider alongside rehabilitation clinicians’ perspectives in order to understand the full phenomena of goal-setting in rehabilitation.

This introduction chapter will review the evidence from the literature and outline the effectiveness of goal-setting in rehabilitation, the theoretical constructs by which goal-setting is perceived to provide benefit in this setting, the frameworks, approaches and methods used to facilitate goal-setting in the literature, and the experience of clients and clinicians’ in rehabilitation goal-setting. In addition, the introduction will provide a summary of barriers and facilitators to client-centred goal-setting in rehabilitation and identify gaps in the current goal-setting research.

1.3 Review of Goal-setting literature

Literature searches were undertaken by the primary researcher over the period of two months and updated throughout the course of the research project. Searches were done through CINHAL, EMBASE, MEDLINE, and google scholar using the keywords; goal-setting, goal planning, goal directed, goal oriented, client-centred, patient centred, patient care planning and rehabilitation. Articles were scanned via title and abstract. Additional hand searches of reference lists were undertaken when required.
1.3.1 Effectiveness of goal-setting in rehabilitation

Many studies have been undertaken to investigate goal-setting effects in rehabilitation. A recent Cochrane review evaluated the effectiveness of goal-setting practices in rehabilitation with clients who had an acquired disability (Levack et al., 2015). This meta-analysis reviewed 39 studies including; 27 RCT’s, six cluster RCT’s and six quasi-RCT’s. These studies involved 2846 participants in total, however, the majority of studies investigated goal-setting with specific client populations such as musculoskeletal disorders, brain injury, chronic pain, mental health conditions or cardiovascular disease. Two studies reviewed the effectiveness of goal-setting in mixed populations however participants were identified as having chronic disabling conditions. No studies meeting the inclusion criteria including mixed population inpatient rehabilitation participants.

The authors of this review highlighted a number of limitations within the studies related to blinding of participants and personnel, and the use of blinded assessors in only five studies. Difficulty in blinding of participants and personnel is inherent in these types of research studies, but should be acknowledged as this may introduce a high risk of performance bias. Heterogeneity in measures used as primary and secondary outcomes limited the studies included in the meta-analysis.

Despite the limitations in conducting the meta-analysis and methodology of some studies the Cochrane review concluded there was benefit of goal-setting in rehabilitation on a range of reported primary outcome measures. These benefits were seen in terms of; improvements in health-related quality of life and self-reported emotional status, participation, and activity level outcomes. In addition, secondary outcomes revealed improvements in client engagement, task specific self-efficacy, and overall client satisfaction.
The results of the meta-analysis identified a benefit from goal-setting in rehabilitation for health-related quality of life and self-reported emotional status when compared to no goal-setting (standard mean difference [SMD] 0.53, 95% confidence interval [CI] 0.17 to 0.88). The analysis was unable to demonstrate a statistically significant difference in client participation or activity level outcomes between the goal-setting and no goal-setting groups. There was also no effect on client engagement between goal-setting and no goal-setting groups. The authors did however find a large effect size when measuring task specific self-efficacy in favour of goal-setting over no goal-setting (SMD 1.07, 95% CI 0.64 to 1.49) (Levack et al., 2015). These findings suggest that while it is yet to be demonstrated that goal-setting improves client activity and participation outcomes during rehabilitation, there are effects in terms of health-related quality of life and self-reported emotional status.

The authors of this Cochrane review also investigated the effect of a structured approach to goal-setting comparative to usual care, where usual care generally incorporated some level of goal-setting but no structured approach. Only five of the included studies defined the usual care approach when compared to the goal-setting intervention and only two of these studies monitored for intervention fidelity. Interestingly, the comparisons of a structured goal-setting approach and usual care failed to find a significant difference between the groups for health-related quality of life, and participation or activity level outcomes. Small improvements in self-efficacy and client satisfaction were however found for groups receiving a more structured goal-setting process. (Levack et al., 2015). The authors of the review did note that caution in interpreting the findings is required as the quality of the evidence was rated as low. A more recent qualitative synthesis of the goal-setting literature also noted that clients
tended to report higher levels of satisfaction with a structured shared decision making approach (Rose et al., 2017).

Rehabilitation goal-setting should be considered as a complex intervention with many interacting components (Siegert & Levack, 2015). Given the many confounding variables in rehabilitation there is little likelihood of strong well powered randomized controlled trials being designed to review goal-setting effectiveness (Siegert & Levack, 2015). Goal-setting practices are often built into organisational and funding requirements such as the National Disability Insurance Scheme (NDIS), Stroke Foundation audits and compensable insurance agencies (National Disability Insurance Agency, 2013; Stroke Foundation, 2017) thus making it difficult to design a control intervention that does not involve some form of goal-setting in rehabilitation. Finally, goal-setting interventions that have been presented within the literature have tended to lack a theoretical basis and are not necessarily representative of the full process of goal-setting and action planning required in rehabilitation (Scobbie et al., 2011). The full goal-setting and action planning constructs will be discussed further when reviewing goal-setting frameworks, approaches and methods.

The studies presented in the literature to date often poorly define the control intervention and present a risk of bias due to the study design and blinding of study participants. The effectiveness of goal-setting in rehabilitation settings is therefore unclear predominantly due to low quality studies in the field (Levack et al., 2015; The Cochrane Collaboration, 2011). Despite this lack of strong evidence rehabilitation goal-setting is still recommended in guidelines and clinical practice generally driven by the need to be inclusive of client preferences and the lack of risk associated with the intervention.
1.3.2 Mechanisms of goal-setting in rehabilitation.

To truly understand how or why goal-setting might be effective in a rehabilitation setting it is important to understand the theories that underpin the process of goal-setting. Furthermore, if studies and clinical practice seek to strengthen the impact of goal-setting on rehabilitation outcomes it is imperative to have a sound understanding of goal-setting mechanisms and constructs.

So, if we are to assume, as many rehabilitation clinicians do, that goal-setting is a useful and valued activity for clients working towards recovery in rehabilitation we must ask ourselves, how does it work? In a review of the literature, Levack et al (2006) identified and defined four reasons that rehabilitation clinicians undertake goal-setting; (1) to improve client outcome, (2) to evaluate outcomes, (3) to enhance client autonomy, (4) and to respond to contractual legislative or professional requirements. For this thesis, which focuses on client-centred goal-setting for rehabilitation, the outcomes of interest selected to pursue were (1) to improve client outcome and (2) to enhance client autonomy. To comprehend how goal-setting might impact positive rehabilitation outcomes, it is essential to examine the mechanisms of action by which goal-setting may improve performance and enhance client autonomy. These mechanisms have also been described by Levack (2006) and have been summarised as (1) increasing motivation to work towards goals, (2) enhancing specificity of training, (3) through secondary therapeutic effects such as improving self-awareness or self-regulation, and (4) improving teamwork. If we are to better understand how goal-setting may influence rehabilitation outcomes there is a need to analyse these mechanisms of action. This will allow further exploration of the theoretical basis for goal-setting and inform how to influence and strengthen goal-setting mechanisms to improve performance and enhance client’s autonomy in rehabilitation. Table 1 outlines the
mechanisms of action thought to explain how goal-setting improves performance and enhances client autonomy. It also details the constructs that may influence these mechanisms of action in a rehabilitation setting. It is acknowledged that these constructs may influence more than one mechanism but for ease of explanation constructs have been described under mechanisms where there is best fit. Further exploration of each of these constructs will follow below
## Table 1. Mechanisms and relevant constructs for goal-setting in rehabilitation.

How does goal-setting improve performance and enhance client autonomy?

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Enhancing specificity</th>
<th>Secondary therapeutic benefits</th>
<th>Teamwork</th>
<th>Enhancing client ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Levack et al., 2006)

What may affect these mechanisms of action?

<table>
<thead>
<tr>
<th>Importance</th>
<th>Self-Efficacy</th>
<th>Cog/Executive Function</th>
<th>Goal Attributes</th>
<th>Action &amp; Coping Planning</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotions</td>
<td>Experience</td>
<td>Memory</td>
<td>Specific</td>
<td>Team Actions</td>
<td>Appraisal of actions</td>
</tr>
<tr>
<td>Values</td>
<td>Expectation</td>
<td>Self-Regulation</td>
<td>Challenging</td>
<td>Client actions</td>
<td>Evaluation of goal progress</td>
</tr>
<tr>
<td>Beliefs</td>
<td>Knowledge</td>
<td>Problem Solving</td>
<td>Common goals</td>
<td>Barrier</td>
<td>Monitoring/progression</td>
</tr>
<tr>
<td>Higher and lower order goals</td>
<td>Mastery</td>
<td>Communication</td>
<td>Participation Level</td>
<td>New goals identified</td>
<td></td>
</tr>
<tr>
<td>Self determination</td>
<td>Grief and loss</td>
<td>Activity Level</td>
<td>Positive goal statements</td>
<td>Coping Planning</td>
<td></td>
</tr>
</tbody>
</table>

(Bandura, 1997; Bandura & Cervone, 1983; Deci & Ryan, 1985; Gollwitzer & Bargh, 1996; Karniol & Ross, 1996; Locke & Latham, 2002; Schmidt, Lannin, Fleming, & Ownsworth, 2011; Schwarzer, 1992; Scobie, 2011; Siegert & Taylor, 2004)
1.3.2.1 Motivation

Motivation has been identified as a mechanism by which goal-setting may improve a client’s performance (Levack et al., 2006). Motivation has been described by Deci and Ryan (1985) as being either intrinsic for which ‘the rewards are internal to the person’ (p.194) or extrinsic where reward is often provided in the form of bonuses, promotions or grades. In rehabilitation settings clinicians have been found to strongly link the concept of motivation to client outcomes. Clinicians believe that motivated clients will do better in rehabilitation than poorly motivated clients (Maclean, Pound, Wolfe, & Rudd, 2002). However, on further analysis of the literature of clinicians’ understanding of motivation, Maclean et al (2002) found clinicians had varying definitions and understanding of what constitutes motivation. A common theme was that clinicians perceived a client’s motivation as a personality trait.

Siegert and Taylor (2004) identified several underlying theories relevant to rehabilitation that explain how motivation drives performance in rehabilitation. These theories highlighted several concepts important for consideration in the conceptual framework. Motivation may be impacted by a person’s previous experiences of success or failure and their expectations of, and confidence in, what they can achieve in the context. Further, a person’s emotions and how important or meaningful an activity or goal is to them will impact motivation through energising them and providing feedback. Therefore, it has been proposed that there may be benefit in organising goals to ensure both higher order, life or dream goals are included in rehabilitation treatment plans along with lower order more concrete activity level goals to address client motivation (Siegert & Taylor, 2004).

When considering the theoretical constructs that underlie motivation it should be noted that these particular concepts may be modifiable. That is, they may change over
Rehabilitation goal-setting: a case study

As time or in different contexts rather than being considered a permanent personality trait (Maclean et al., 2002). Understanding the concepts that underlie motivation is important to aid in how we develop goal-setting interventions to promote and develop motivation in rehabilitation clients. Based on the theories identified which influence motivation in rehabilitation (Siegert & Taylor, 2004) intrinsic motivation maybe something that can be fostered and developed. This could be achieved over time by providing knowledge to clients, including their important values and beliefs, using positive goal statements and providing mastery experiences. It is therefore suggested that when developing a conceptual model of goal-setting important components of motivation be considered for inclusion, such as; importance of the goal to the client, the client’s values and beliefs, how confident they are to achieve the goal, higher order and lower order goals and consideration of the client’s knowledge and expectation in the particular context.

1.3.2.2 Enhancing specificity of training

In rehabilitation settings goals should be selected by clients based on their needs and what is most important to them. Inherent to this statement is the idea of individualised goals that are specific to the client. Goal-setting can enhance the specificity of rehabilitation activities by defining what is being worked on, the outcome to be achieved, and directing the selection of treatment activities toward the goals (Randell & McEwen, 2000).

The literature reviewing types of goals set in rehabilitation commonly uses the International Classification of Functioning and Disability (ICF) to classify the types of goals that are set (World Health Organisation, 2001). There is consensus that in order to be a meaningful rehabilitation goal for the client, what is being worked on should be stated in positive terms at an activity or participation level (Levack et al., 2015). Further, goals should be set specifically so that the outcome to be achieved is clear.
Theory exists to support the setting of specific and challenging goals to improve performance (Locke & Latham, 2002). These theories have been developed predominantly from organisational psychology research but have been adopted into rehabilitation goal-setting practice through the use of SMART (Specific, Measurable, Achievable, Relevant and Time framed) goal-setting (Bovend’Eerdt, Botell, & Wade, 2009). Whilst this acronym goes someway to addressing the development of specific goals the acronym alone does not outline how to make something specific. That is, guidance around the type of detail required is not provided, but could include details such as: the context in which the goal needs to be performed, and how often or how much of the activity needs to be done.

Much of the evidence to date in rehabilitation goal-setting literature uses the SMART criteria as a checklist for identifying goals that have been well defined. However, the specific component of the SMART criteria is not often considered in detail nor is it explicitly reported in the research (Plant & Tyson, 2017). Bovend’Eerdt (2008) stated that specific goals should define the target activity, the support needed and the level of performance required along with a time frame for achievement. Therefore, it remains unclear in the literature if rehabilitation clinicians can be considered to be setting highly specific goals.

The establishment of a specific (SMART) goal signals the end of the goal-setting phase of rehabilitation and the commencement of the goal pursuit phase. In order to work towards a goal an action plan needs to be developed detailing rehabilitation activities and interventions known to be effective in pursuing the goal. For example, in stroke rehabilitation populations it has been long identified that practice of the specific task will improve performance of that specific task (French et al., 2016; Veerbeek et al., 2014) For example for a client to be able to walk at home they will need to undertake
rehabilitation activities known to improve the core components of walking. Therefore, rehabilitation teams should be directing their choice of intervention towards activities that form the stepping stones towards achieving the goals set with the client.

Theories support the use of action planning and coping planning in setting rehabilitation goals (Sniehotta, Scholz, & Schwarzer, 2005; Sniehotta, Schwarzer, Scholz, & Schüz, 2005). Action plans should be something clients have control over and can work towards completing to help them achieve their goals. If clients identify barriers to completing action plans, coping plans to manage these barriers should be established. For example, if the action is to walk to the dining room with supervision each evening and one evening at dinner the client is quite fatigued, the coping plan could be to have a chair located half way to the dining room to allow for a short rest. A coping plan has been described as enhancing the success of the action plan and further enhances the specificity of the rehabilitation. There is limited evidence in the literature investigating the inclusion of action and coping planning in the process of goal-setting in rehabilitation settings, nor the effectiveness of these plans. One study undertaken across five rehabilitation units in the United Kingdom (UK) identified only a vague connection between rehabilitation goals and treatment activities (Plant & Tyson, 2017). In fact it was noted that many of the treatment activities related to actions that clinicians needed to employ rather than guiding how the client may participate in achieving their goal/s.

Appraisal and feedback are also important constructs for enhancing goal specificity. They allow the clinician and client to reflect on what has worked well and what hasn’t in order to further refine goals and action plans (Scobbie et al., 2011). Firstly, an appraisal of the level of success of the action plan should occur which will facilitate feedback and either refinement of actions or creation of new actions as
required. If the action plan has been well completed goal progress should be reviewed, resulting in goal progression, discontinuation or establishment of new goals.

This section has discussed important constructs that should be included in the theoretical model of goal-setting in order to enhance the specificity of training in rehabilitation. Some of the key constructs included; setting specific and challenging goals at a meaningful activity or participation level, including action and coping plans for the client and clinicians, and ensuring processes for appraisal and feedback surround goals, actions and coping plans. It is proposed that these constructs will support the mechanisms of enhancing specificity and meaningfulness to improve outcomes of rehabilitation goal-setting.

1.3.2.3 Secondary Therapeutic effects

Secondary therapeutic effects of goal-setting include outcomes such as supporting adjustment to a new life role, developing problem solving skills or development of insight following injury or illness. It is common in rehabilitation for clients to have difficulty with memory, self-regulation, grief and loss, problem solving and/or communication. There is preliminary evidence that goal-setting can have a therapeutic effect on some of these difficulties. For example, a number of studies have described goal-setting as assisting those with cognitive deficits to develop insight and awareness using observations, activity planning and feedback (Doig, Kuipers, Prescott, & Cornwell, 2014; Schmidt et al., 2011). Goal-setting can achieve this through observing discrepancies between current performance and desired performance, implementing actions to address this gap, and reviewing the progress and providing feedback.

Goal-setting in rehabilitation may also have secondary therapeutic benefits through supporting the psychological recovery and adjustment of clients with a newly
acquired disability (Nair, 2003; Nair & Wade, 2003a, 2003b). Ensuring that goals focus on client’s valued and important activities it is possible to support them through their rehabilitation program as they adjust to their new functional state or life role. This may see re-negotiation of client goals as they recover and adjust to this new state and therefore place importance or value on different activities.

Important concepts for inclusion in the conceptual model relating to the secondary therapeutic benefits include consideration of; the impact of cognitive, communication and psychological impairments (specifically memory, problem solving, self-regulation and communication), a client-centred focus and the need for action planning, feedback and review. Inclusion of these components in goal-setting practices may have the potential to enhance the secondary therapeutic benefits and increase the effectiveness of goal-setting interventions on improving client outcome and autonomy.

1.3.2.4 Teamwork

The description of rehabilitation and the settings in which it occurs as outlined in section 1.2 highlighted the team based context of rehabilitation, and therefore the need to consider the role of teamwork related to goal-setting. There has been a body of work undertaken to review the impact of teamwork on rehabilitation outcomes (Strasser, Burridge, Falconer, Herring, & Uomoto, 2010; Strasser, Burridge, Falconer, Uomoto, & Herrin, 2014; Strasser et al., 2005;Strasser et al., 2008). In this series of studies, the authors concluded that certain characteristics of team functioning may impact certain rehabilitation outcomes and warrant consideration and further investigation in research within rehabilitation teams. Team characteristics impacting length of stay included managerial practices, whilst team characteristics such as team order, organisation and task orientation were found to impact Functional Independence Measure (FIM) motor scores throughout rehabilitation.
Improving rehabilitation team work has been identified as a mechanism by which goal-setting may improve client performance (Levack et al., 2006). Cifu & Stewart (1999) define an interdisciplinary rehabilitation team “as one in which rehabilitation services are provided by diverse professionals who constitute a team that communicates regularly and uses its varying expertise to work toward common goals” (p36). Whilst there is limited research on the direct impact of goal-setting on interdisciplinary teamwork in rehabilitation teams, working towards common goals has been identified as a key component. Within stroke rehabilitation populations interdisciplinary teamwork has been shown to have a positive effect on client outcomes and reduce length of stay (Cifu & Stewart, 1999).

Constructs relevant to teamwork that have been included in the conceptual model include; the team working together with the client towards common goals in line with an interdisciplinary model of goal-setting which includes clients and family members as part of the interdisciplinary team. Including these constructs in the conceptual model has the potential to improve teamwork practices and strengthen this mechanism to impact rehabilitation outcome and autonomy for clients.

1.3.2.5 Enhancing client involvement and ownership

Rehabilitation settings that aspire to client-centred practice would seek to acknowledge the client as an active member of the team. Clients perceive that participating in the process of goal-setting enables them to be more active participants in rehabilitation (Rose et al., 2017). Clients have also identified that being involved in shared decision making during goal-setting helped them be able to manage better on discharge and think constructively about the future (Rose et al., 2017; Wressle, Egg-Olofsson, Marcusson, & Henriksson, 2002).
Previous literature has suggested that involving the client in goal-setting in rehabilitation has the potential to enhance their engagement and ownership over their rehabilitation activities. It can be argued that this is also an ethical consideration allowing the clients a right to self-determination (Levack et al., 2006). The important constructs relating to enhancing client involvement have been included in the theoretical framework outlined in section 1.3.2 within the teamwork mechanisms and interdisciplinary construct. Specifically, the reference is to working towards common goals and involving the client as a member of the rehabilitation team.

In summary, the reasons rehabilitation clinicians set goals have been identified as; to enhance client autonomy, to improve performance, to evaluate outcomes and for organisation requirements (Levack et al., 2006). The mechanisms of how goal-setting may achieve improved client performance and autonomy have also been summarised by Levack (2006) and include; through motivating, enhancing specificity of training, through secondary therapeutic benefits and by enhancing teamwork. The reasons clinicians undertake goal-setting and proposed mechanisms in which goal-setting may improve one’s performance and enhance client autonomy have been further elaborated on and are listed in the Table 1 alongside the constructs that may influence these mechanisms. This conceptual theoretical framework was developed to guide the research study.

1.3.3 How is goal-setting structured?

The terminology used in the literature to describe how goal-setting is structured is inconsistent. When describing how goal-setting is structured there is confusion and redundancy in the use of the terms such as; approach, model, measurement tool, method and framework. For this research study the following meaning will be attributed to each of these terms:
• a framework will outline what stages or activities need to occur in goal-setting,
• an approach to goal-setting includes a description of how the goal-setting occurs regarding who is involved and finally,
• a goal-setting method will refer to tools that facilitate or measure a component of goal-setting practice.

An overview of the existing literature relating to these terms is provided in the following sections.

1.3.3.1 Frameworks for goal-setting

A literature search identified only a single theoretically based framework for rehabilitation goal-setting known as the Goal-setting and Action Planning framework (G-AP) (Scobbie et al., 2011). This framework was established through a causal modelling exercise and theories utilised to develop this framework were chosen for their relevance to rehabilitation settings. The G-AP framework for goal-setting includes a (1) goal negotiation and goal-setting phase, (2) an action planning and coping planning phase, (3) taking action and (4) appraising the actions and goals and providing feedback (Figure 1). This framework is theoretically based and summarises a full goal planning process.
Figure 1 Goal-setting and Action Planning Framework. This figure has been adapted from the work of Lesley Scobbie (2011).

The first phase of the G-AP framework includes two components: goal negotiation and goal-setting (Scobbie et al., 2011). The goal negotiation phase includes the identification of a client’s meaningful goal areas. Goal negotiation includes an aspect of shared decision making and should include a discussion of the client’s values, beliefs and expectations. This phase aligns with the conceptual model developed for this study as it includes the constructs of importance, self-efficacy and client involvement (see Table 1). The goal-setting component involves the shared development of specific and meaningful goals. It should account for aspects of specificity that will enhance the training effects and action planning such as; how much of the activity needs to be
performed, where it needs to be performed and how often it needs to be performed. This phase aligns with constructs represented in the study’s conceptual model under goal attributes.

The second phase of the G-AP framework builds on the initial phase and sees the development of action and coping pans. The action planning and coping planning phase align with the emphasis within this study’s conceptual model on importance of defining specific rehabilitation activities. These rehabilitation activities should align with the goal and include specific descriptions of what needs to be done. This can include descriptions of when, where, how often and who the activities will be undertaken with. Coping plans should be set to deal with any anticipated barriers that arise to completing the action plan.

Phase four of the G-AP framework follows on from the action and coping planning phase. As participants begin to work on putting the plans into action there is the need for the rehabilitation clinicians alongside the client to appraise performance and provide feedback on these plans. This phase includes discussion about the success of the action and coping plans as well as appraisal of goal performance, delivery of relevant feedback, and review of goals and actions. Dependent on the outcome of this appraisal and feedback process the next step may vary from exiting the process due to achievement of all rehabilitation goals to refining or setting new goals.

To date there have been limited evaluations of the effectiveness of the G-AP framework in the research literature (Scobie, McLean, Dixon, Duncan, & Wyke, 2013). Three studies have detailed local process frameworks for goal-setting, with one based on the principle of G-AP. These studies were the Wolfson Neuro Rehabilitation Centre process (McMillan & Sparkes, 1999), the Rivermead Rehabilitation process
Rehabilitation goal-setting: a case study

(McGrath, Marks, & Davis, 1995) and the Towards Achieving Realistic Goals in Elders Tool (TARGET) process (Parsons & Parsons, 2012) All papers outlined specific processes that occurred within their specific rehabilitation units. The Wolfson Neurorehabilitation Centre process involved the use of a goal planning meeting with the client and the team, identification of a detailed problem list, formulation of long term and short-term goals, development of action lists with a copy of the goals given. Progress was reviewed every 2 weeks in a meeting with the team (McMillan & Sparkes, 1999). The Rivermead Rehabilitation process involved the administration of a life goals questionnaire followed by an interdisciplinary goal planning meeting, without the client present. Follow up was provided to the client by one member of the interdisciplinary team and review goal planning meetings were scheduled to monitor progress (McGrath & Davis, 1992). The TARGET process involved an assessment of the client’s needs followed by ranking and scoring of prioritised problems, development of SMART goals, undertaking action to achieve short and long-term goals and 3 monthly reviews (Parsons & Parsons, 2012). All of the above processes address the phases of the G-AP framework which fits with the conceptual framework however each of these processes are specific to the rehabilitation unit model of care and describe varying methods for involvement of the client.

For the purpose of this research study the G-AP framework was selected to sit alongside the conceptual model to design the review of goal-setting practice due to its theoretical and evidence base and flexibility of application.

1.3.3.2 Approaches to rehabilitation goal-setting

Several different approaches to goal-setting in rehabilitation have been identified within the literature that detail the level of client involvement in the goal-setting process (Leach et al., 2010; Rose et al., 2017). Rehabilitation goal-setting requires contribution
from the client, family and rehabilitation team at varying levels. In the study undertaken by Leach and colleagues (2010) they have described this varied level of involvement through identification of three different approaches; therapist controlled, therapist led and patient focused (Leach et al., 2010). The therapist controlled approach to goal-setting involved goals being set by the clinician based on impairment assessments undertaken with the client. The therapist led approach involved an interaction between the therapist and the client following a formal assessment, clients are offered a chance to contribute but ultimately are guided by the therapist. The patient focussed approach used a specific goal-setting method to facilitate a client-centred interaction where concerns were identified and prioritised by the client. The predominant approach of goal-setting identified by Leach and colleagues (2010) was therapist led. This appears to be the most common approach represented in rehabilitation goal-setting literature (Leach et al., 2010; Rose et al., 2017).

In a clinical practice survey undertaken in the UK, goal-setting was most commonly underpinned by an informal problem based approach (Holliday et al., 2005). This problem based approach involved individual disciplines identifying problems, setting goals with clients related to these problems and reporting back in a case conference or multidisciplinary team meeting without the client present. This survey stated that clients were incorporated into the goal-setting discussions and evaluations in less than 30% of cases. Clients were also not routinely provided with information on the goal-setting or rehabilitation process prior to assessments and they were not routinely given copies of their treatment goals (Holliday et al., 2005). This lack of client involvement in goal-setting interactions describes an approach more consistent with the therapist controlled approach identified by Leach et al (2010). The problem based approach to rehabilitation goal-setting may stem from a traditional biomedical model.
approach, despite recent advocacy for a more biopsychosocial approach to rehabilitation (Wade & Halligan, 2017). The biopsychosocial approach includes consideration of function in the context of an individual’s personal factors and environment and has been included into the World Health Organisations Classification of functioning and disability (WHO-ICF) (World Health Organisation, 2001). It has been suggested that the biopsychosocial approach should be included in rehabilitation services to improve client-centred care (Wade & Halligan, 2017).

A recent systematic review investigated shared decision-making and goal-setting processes reported in the literature (Rose et al., 2017). This review specifically focused on how goals were set and the level of client involvement. The authors found only three studies that exhibited a true shared decision-making approach, and of these, two of the studies were undertaken in the same unit. The shared-decision making approach involved the client being given a booklet for goal-setting followed by a goal-setting meeting conducted with the clinicians involved in their rehabilitation, the clients and their family (Holliday, Ballinger, & Playford, 2007; Scobie, 2011; Van De Weyer, Ballinger, & Playford, 2010). The shared decision-making approach described in these studies was more consistent with the patient focused approach described by Leach et al (2010).

The approach taken to the inclusion of clients in rehabilitation goal-setting has the potential to influence the effectiveness of goal-setting by impacting a number of the goal-setting mechanisms described in the conceptual framework. It is clear from the existing research that client-centred approaches that utilise shared-decision making are not currently the norm in clinical practice despite the importance placed on client-centred practice in rehabilitation guidelines.
Many goal-setting methods have been designed to facilitate goal-setting for different rehabilitation client populations and settings. A systematic review designed to identify goal-setting methods in Acquired Brain Injury (ABI) populations identified 32 different methods of goal-setting from 24 published articles (Prescott, Fleming, & Doig, 2015). Both formal and informal methods were reviewed within this article. It was found that there was high use of formal goal-setting methods in the literature (77%), predominantly the Canadian Occupational Performance Measure (COPM) and Goal Attainment Scaling (GAS) (Chan & Lee, 1997; Kiresuk, 1968). However, this was in contrast with previous observational studies reviewing the use of formal methods in clinical practice (14%) (Holliday et al., 2005; Leach et al., 2010). Prescott et al (2015) hypothesised that this discrepancy between research and clinically-based studies may be due to the limited clinical utility of formal methods across different contexts (Prescott et al., 2015). Regardless, there appears to be an evidence-practice gap in the use of formalised goal-setting methods.

An earlier systematic review of patient centred measurement instruments associated with goal-setting in chronic healthcare was undertaken by Stevens et al (2013) to determine the availability and feasibility of these goal-setting instruments. Eleven patient centred measurement instruments were included in the review including the COPM, GAS, Self-identified Goal Assessment (SIGA) tool and Talking Mats. The most commonly used measures were the COPM and GAS with both instruments promoting a client-centred approach. These were however found to be time consuming to complete, and for clinicians working with clients with cognitive deficits completion was difficult. Talking Mats were subjectively reported to be feasible to use for goal-setting in populations experiencing communication and cognitive difficulties. Stevens
and colleagues (2013) also mapped the measures against the G-AP framework to establish which components of the framework were included. No measure reviewed included an action planning phase. It was found that no one single measure could be recommended as feasibly facilitating goal-setting across all phases of the G-AP framework. However, inclusion of one of these measures may strengthen components of the goal-setting when incorporated into the G-AP framework (Stevens, Beurskens, Koke, & van der Weijden, 2013).

1.3.4 Goal-setting experiences - Clients and clinicians

Discrepancies exist between the perceptions and experiences of clients and rehabilitation clinicians regarding client engagement in goal-setting. It has been suggested that one reason for a client’s lack of engagement in goal-setting is that the client is not ready to goal set (Laver, Halbert, Stewart, & Crotty, 2010). However clients have also identified unpreparedness to participate due to limited access to information about goal-setting process and uncertainties related to recovery (Rosewilliam, Roskell, & Pandyan, 2011; Sugavanam, Mead, Bulley, Donaghy, & Van Wijck, 2013).

Stroke survivors, frequently represented in rehabilitation caseloads, have been reported to have higher recovery outcome expectations than treating therapists (Laver et al., 2010). One explanation for this difference in expectations has developed from observations that stroke survivors will tend to compare themselves with their pre-stroke status whilst clinicians more commonly benchmark achievement against a client’s immediate post-stroke status. The potential impact of these comparisons may be lower feelings of goal achievement for clients than clinicians (Lawler, Dowswell, Hearn, Forster, & Young, 1999). Clients tend to formulate more hope based longer term goals that are broad and lack specificity whilst clinicians will more often tend to set short
term, impairment based goals that are conservative and err on the side of caution (Brown et al., 2014; Levack, Dean, Siegert, & McPherson, 2011; Sugavanam et al., 2013).

The mismatch in how client and clinician view rehabilitation expectations may cause tension. It has been reported that clinicians are seen by clients as being able to either “encourage or deflate” (Lloyd, Bannigan, Sugavanam, & Freeman, 2018) them depending on their interactions when goal-setting. Clinicians have identified difficulties managing conversations related to goal-setting specifically in hospital and acute care environments when the client’s perspectives differed from their own. (Levack et al., 2011; Plant et al., 2016). Clinicians have been found to prioritise “privileged goals” these being goals that the clinicians themselves felt were appropriate in the context of the client’s rehabilitation (Levack et al., 2011 p.210). Clinicians tend to steer clients towards more “privileged goals” if client’s own goals were not considered achievable or appropriate (Levack et al., 2011). In a systematic review by Lloyd and colleagues (2018), it was found that clients wanted to set ambitious goals to maintain hope and motivation. These were often stifled by clinicians’ perspectives resulting in some clients setting their own goals in secret (Lloyd et al., 2018). In this review clients recognised the need for goal-setting to be flexible and allow both longer term ambitious goals as well as shorter term practical goals depending on the individual and their needs.

Rose and colleagues (2017) investigated client’s perspectives on shared decision-making within the goal-setting process. This review found that clients valued being involved in the process. Clients experienced an increased sense of ownership over the goals, when involved in shared-decision making and felt that it helped them to know exactly what they needed to do throughout the rehabilitation process. Some clients
reported setting smaller goals was easier, and overall they were significantly more satisfied with models promoting shared decision-making (Rose et al., 2017).

1.3.5 Barriers and facilitators

Several studies within the literature have reviewed the barriers and facilitators to implementing client-centred goal-setting in rehabilitation. A recent systematic review and meta-synthesis was undertaken by Plant and colleagues (2016) to investigate the barriers and facilitators to goal-setting in rehabilitation for stroke and other acquired brain injuries (Plant et al., 2016). Nine qualitative papers were included in this review with a total of 202 participants, whilst a review undertaken by Rosewilliam (2011) identified a further eight articles for inclusion in their qualitative review (Rosewilliam et al., 2011). All articles included in these reviews were of a qualitative design. Plant et al (2016) reported all nine studies were of good quality when reviewed using the Mixed Methods Appraisal Tool. In the article by Rosewilliam et al (2011) the Critical Appraisal and Skills Program (CASP) tools were used as a guide to evaluate the quality of the research studies. The primary barriers and facilitators to implementing goals setting practices in stroke and brain injury rehabilitation have been synthesised below (Rose, 2017; Plant, 2016).

- Clinician related barriers exist such as; difficulty with managing discussions when client’s expectations of recovery differ from clinician’s own. Additionally, clinician’s general level of skill in setting goals has also been identified as a barrier to implementing goal-setting (Rose et al., 2017).

- Client related barriers exist such as; passive personality traits, lack of insight or over-whelmed clients, along with those who have significant comorbidities and changes in medical conditions. Client’s lack of knowledge of
their condition, the rehabilitation process and expectations for recovery were also identified by both clinicians and clients as being a barrier to goal-setting. Some clients did not see goal-setting as being necessary and that inpatient rehabilitation targets were “common sense” (Plant et al., 2016 p.925).

- Family dynamics and families own interests have been identified as a barrier deterring focus from the client at times (Lloyd, 2018).

- *Team level barriers* exist such as; a lack of coordinated processes or structure for goal-setting practices and a lack of shared vision of goal-setting priorities.

- Organisational and service level barriers exist such as time, integration of information across record keeping systems, shift patterns, clinician’s priorities and clinician turnover requiring ongoing orientation and training (Plant et al., 2016; Rosewilliam et al., 2011).

- Several facilitators to goal-setting practice were identified in the review by Plant (2016) and these included; strategies to promote communication and understanding of goal-setting, individually tailoring goal-setting practices and avoiding unrealistic goals through counselling and short-term goal focus. Time and expertise should be available to support the goal-setting practices within teams and an effective chair should be nominated for team meetings (Plant et al., 2016). Rose et al (2017) also identified that the inclusion of standardised measures may facilitate shared decision-making goal-setting practices.
1.4 Summary and Study Aims

Currently, the evidence to support the effectiveness of goal-setting in rehabilitation remains unclear. Guidelines recommend the inclusion of client-centred goal-setting and structured approaches may be more effective in improving client self-efficacy (Levack et al., 2015). This chapter has provided an overview of the effectiveness of goal-setting in rehabilitation settings, the theoretical constructs that support goal-setting in this context and an outline of the approaches, frameworks and methods used to implement goal-setting in rehabilitation. Through a synthesis of the literature and theories presented by Levack (2006) a conceptual framework for client-centred goal-setting detailing mechanisms and associated constructs has been proposed and underpins the research methodology in this thesis. This addresses an earlier call from Siegert and Taylor (2004) to use a theoretical approach to rehabilitation in future research endeavours. This review has highlighted that there is a gap between our knowledge of goal-setting theories, mechanisms and constructs, and their implementation into clinical and research practice. Specifically, this includes the use of holistic goal-setting practices that incorporate all phases of goal-setting such as those represented in the G-AP framework. There is an absence of research evidence demonstrating the effectiveness of goal-setting on client outcomes, but impact on psychological constructs and health related quality of life has been shown.

Goal-setting is recommended in organisational and professional guidelines however, clinicians have limited guidance on how to implement goal-setting in rehabilitation services with broad case mix. Organisation context has been implicated as a barrier to client-centred goal-setting in the literature and it is therefore important to understand the impact of the environment and culture in Queensland rehabilitation services prior to implementing practice change.
The purpose of this thesis was to conduct a qualitative case study that aims to describe goal-setting practices in a single mixed inpatient rehabilitation unit in order to understand the impact of the environmental, social and cultural context. This study has utilised a conceptual framework developed from the theoretical and research literature to structure a holistic review of current goal-setting practice. The study includes analysis of the structure of goals that are set in regard to their specificity, the direction of rehabilitation activities towards goals, how goals are set relating to the level of client involvement, and experiences and perspectives of clinicians in implementing client-centred goal-setting in rehabilitation. Three studies were conducted within this qualitative case study and will address the following specific research questions;

1. What is the current structure of goal-setting in an inpatient rehabilitation service?

2. What is the current level of client involvement in the goal-setting process in this inpatient rehabilitation service?

3. What are clinicians perspectives and experiences of implementing client-centred goal-setting in an inpatient rehabilitation service?
Methods
2.0 Methods

2.1 Study Design and methodology

A qualitative case study methodology was selected to evaluate the complexity of goal-setting practices in an inpatient rehabilitation setting. Qualitative case study methodology follows a constructivist paradigm and aims to assist the researcher to understand how and why a particular phenomenon may be present in a specific context (Hancock & Algozinne, 2006). Goal-setting in a rehabilitation setting involves a complex series of interactions among a team of health professionals, clients and families. The qualitative case study design enabled description of this complex social context through using multiple data sources to understand the phenomenon of rehabilitation goal-setting practices (Baxter & Jack, 2008). The approach allowed the primary researcher to use theory to evaluate a program of goal-setting in an inpatient rehabilitation setting with the intention of further developing interventions to improve goal-setting practices in future research. The approach used to guide this qualitative case study methodology is that described by Yin (2003).

The qualitative case study methodology identifies three types of qualitative case study design: exploratory, explanatory and descriptive (Yin, 2003). Exploratory case studies are designed to explore and evaluate an intervention. Explanatory case studies are designed to provide an explanation of causal links between interventions and outcomes. A descriptive case study design allows the researcher to describe a complex phenomenon. To best describe the goal-setting practices within the specific context a single *descriptive* case study methodology was chosen (Yin, 2003). This allowed the researcher to describe the complex phenomenon of rehabilitation goal-setting practices in a single inpatient rehabilitation unit through the use of both qualitative and quantitative methodologies.
2.1.2 Conceptual framework

As outlined in the introduction chapter of this thesis, a conceptual framework was used in the development of the study methodology and draws on the work of Levack and colleagues (2006) detailing the mechanisms by which goal-setting may have its effect in rehabilitation and the constructs that may influence this (see Table 1). The conceptual framework guided the selection of data collection methods and tools. Both quantitative and qualitative methods of data collection and measurement tools were selected to measure specific constructs, mechanisms and outcomes related to goal-setting practice in the rehabilitation unit.

2.1.3 The Case

In a qualitative case study, it is imperative to define the case to be studied and this is referred to as binding the case and is done through description of the unit of analysis. In this case study design the unit of analysis is the inpatient rehabilitation team and their goal-setting practices. The case to be studied was one 24 bed varied case mix inpatient generalist rehabilitation unit. The case-mix of this inpatient rehabilitation unit consisted predominantly of stroke survivors and clients requiring reconditioning and/or recovering from orthopaedic surgery. There were two medical consultants within the rehabilitation unit (one geriatrician and one rehabilitation consultant), 11 allied health rehabilitation clinicians, and two rehabilitation assistants. There were eight and a half full-time equivalent senior nursing staff within the rehabilitation unit with at least one rostered per shift. The client and clinicians characteristics of this unit are representative of many generalist rehabilitation units across Queensland, Australia.

There is opportunity within qualitative case study design to explore the phenomena further by embedding sub units into the analysis. Sub units to be analysed in
this case are the individual adult rehabilitation clients and their goals. This embedded subunit analysis enriches the data to better describe the phenomenon of goal-setting practices in the inpatient rehabilitation unit (Baxter & Jack, 2008).

2.1.4 Participatory Approach

A participatory approach was incorporated into the study design with the aim of developing a facilitation framework that would assist future implementation research beyond the scope of this thesis. Facilitation has been identified as being an active ingredient in the process of translating evidence into practice and developing practice change in healthcare teams (Harvey & Kitson, 2015). The framework consisted of an ‘expert facilitator’ which was the role of the primary researcher. The primary researcher is a female physiotherapist by background with over 10 years’ experience working predominantly in rehabilitation settings and having completed two post graduate qualifications in rehabilitation. The primary researcher in this role has been described as an ‘external change agent’ who acts as a consultant to the rehabilitation team, setting the plan and strategic direction. The allied health team leader within the service was nominated as the ‘key facilitator’. The ‘key facilitator’ role acted as the ‘internal change agent’ and coordinated the goal-setting practice review within the team. Several clinicians among the team were nominated as ‘local facilitators’ whose role was to undertake the medical record audits of current goal-setting practice and client interviews. This facilitation model was originally described as part of the Dynamic Standard Setting System or DySSSy proposed by Kitson et al, (1990). The aim of including this facilitation model in this review was to empower internal facilitators to drive change in future phases of the research.
2.1.5 Benefits of study design

The benefit of this methodological approach lies in the ability to explore and describe a case using multiple data sources allowing for more in-depth exploration of the presenting phenomenon through different perspectives. Data from multiple sources are able to be triangulated enhancing data credibility and strengthening the study findings. The participatory approach driven by the facilitation model described above allowed clinicians to reflect on their own goal-setting practices and client-centred approaches thus engaging them throughout the review of goal-setting practice.

Within qualitative case study research, it is recommended to establish a series of propositions to assist with keeping the research focussed (Yin, 2003). These propositions assist in structuring the study design and presenting the report findings. For this study the following propositions have been established:

2.1.6 Propositions

- **Goals set in rehabilitation are often poorly defined, lack meaningful context for individual clients and do not directly drive the selection of rehabilitation activities.**
- **Rehabilitation goal-setting practices are often therapist led and clients are often uninvolved in discussions regarding their rehabilitation planning.**
- **Organisational and environmental barriers and facilitators affect the implementation of client-centred goal-setting practices in inpatient rehabilitation.**

2.2 Project Sub-studies

The conceptual framework and propositions led to development of three sub-studies to evaluate goal-setting practice within the identified rehabilitation service. Studies were designed to overlap and at times run concurrently.
**Study 1** was designed to evaluate the current process of goal-setting and the structure of goals set within the rehabilitation service as documented in the medical record. This included who set goals with clients, identification of goal attributes such as how much needed to occur and by when, and presence of action, coping planning and feedback processes.

**Study 2** was designed to evaluate the current level of client involvement in the process of goal-setting and how important clients felt the goals were to them. Client self-efficacy was also measured through rating client confidence in achieving these goals.

**Study 3** was designed to evaluate clinicians experiences of client-centred goal-setting practices in the rehabilitation unit.

---

**The Case**
24 bed inpatient general rehabilitation unit
2 medical consultants, 11 allied health professionals & 8 senior nursing staff

---

**Study 1**
Max. 30 client medical charts
Inclusion criteria: 3+ days inpatient rehabilitation

---

**Study 2**
Study 1 participants invited
Exclusion criteria: severe cognitive &/or communication, intellectual impairment, & mental illness

---

**Study 3**
Clinicians from multidisciplinary team – medical, allied health, & nursing

---

**Figure 2. Study participants**
2.3 Study 1

2.3.1 Design

This study was designed to evaluate the current process of goal-setting and the structure of goals set within the rehabilitation service as documented in the medical record. Components of the conceptual framework were reviewed including: goal attributes, action planning, coping planning, and feedback relating to goal-setting in the rehabilitation unit. Goal-setting processes were also reviewed through this audit to determine how goals were set regarding the level of client and team involvement.

2.3.2 Materials

A chart audit tool was developed; guided by the conceptual model and adapting principles of the G-AP framework (Scobie, 2011) and Goal Training publications produced by the New South Wales Health Agency for Clinical Innovation (Agency for Clinical Innovation, 2013). The audit tool comprised four sections including; demographic data, who completed goal-setting, how goal-setting was completed, and attributes associated with the goals that were set. The audit tool is included in Appendix 1.

Demographic data collected included; age, medical diagnosis related to the rehabilitation admission, premorbid level of function, rehabilitation length of stay, and admission and discharge FIM scores (Dodds, Martin, Stolov, & Deyo, 1993; Ottenbacher, Hsu, Granger, & Fiedler, 1996). The FIM was selected to measure overall functional outcome of clients. It was selected due to its acceptability and practicability as a measure of functional outcome. FIM data was available as routine data collected for each client in this service. Clinicians participating in the FIM data collection were trained and credentialed in the use of this measure as required by AROC.
Goals were recorded by local facilitators and grouped together based on how the goals were set. This included goals set by the team i.e. at a case conference, goals set by one member on behalf of the team or goals set by each of the individual disciplines. Goals that were documented the same twice were removed from the data set (n=19). Some goals included two components such as “Return home to current residence, with patient being (I) mobile with 4ww and all PAdLs” and were documented by the local facilitators as one goal and were thus treated as such for analysis. The specific rehabilitation team members who set the goals with clients were recorded as part of the audit tool, this included identification of allied health disciplines, nursing and medical officers that were setting goals and whether or not the client was present when goals were set.

The WHO-ICF was used to determine the focus of the goals set (e.g. impairment, activity, participation) (World Health Organisation, 2001). When classifying the goals using the WHO’s ICF framework (2002) it is recommended to designate “all domains as potentially both activity and participation and employ qualifiers to distinguish the information that is required and collected” (p.12). For this research study the default qualifier for a participation level goal included if there was an environment or social context stated in which the goal needed to be performed. Using these recommendations, goals were classified as either a participation level goal, activity level goal or impairment level goal. Participation level goals were defined as a goal to participate in a life event (including an environment or social context), activity level goals were defined as aiming to complete an activity but not within a specific social context or environment and impairment level goals were defined as targeting a body structure or function concern.
Goal attributes that were identified in the audit included; where the goal needed to occur, how much of the goal needed to be done, how well it needed to be done and if a timeframe was associated with the goal. Client and clinician action plans were also audited to determine whether goals were directing selection of specific rehabilitation activities, whether barriers were identified to completion of the actions and if coping plans were put in place to address these barriers. Local facilitators were asked to record if they could identify clinician action plans or client action plans in the medical record that were associated with the goals set. Where multiple goals were set by each discipline within the two-week period the local facilitators were asked to respond yes if there were clinician actions or client action plans for more than 50% of the goals documented for that discipline.

Redcap data collection software was used to design the audit tools online (Harris et al., 2009). Conditional logic was used to support holistic data collection and minimise chart audit time and repetitive documentation. This also allowed for a large amount of complex data to be collected throughout the audit. The chart audit tool was piloted and tested among a clinical advisory group and research team prior to implementation.

2.3.3 Participants

All adult clients undertaking rehabilitation in one rehabilitation unit were eligible for chart auditing. Chart audits were undertaken with a consecutive sample of all clients undertaking rehabilitation within the service from November 2017 to January 2018. No participants were directly involved in the data collection for this study. A maximum sample size of 30 was identified. Clients were excluded if they were in rehabilitation for less than 3 days. There were no other exclusion criteria applied to this phase of the research.
2.3.4 Procedure

Nine clinicians were nominated as local site facilitators to undertake the chart audits. The local facilitators were trained by the primary researcher to undertake the audits of the medical record documentation. Slight modifications were made to the chart audit tool following feedback given by the clinicians in the training sessions, these included wording and phrasing changes only. Decisions were made during the training about where information for the chart audit would be collected from within the medical record to ensure all relevant information was collected from: progress note entries, care plans, exercise records and case conferencing documents. Following the training, all clinicians completed a short reliability test to define the goal attributes associated with five provided goals. Interrater reliability was adequate across the multidisciplinary group of auditors (Kappa= 0.74). Feedback was given to clinicians relating to any misinterpretation of the goal attributes.

The key facilitator maintained the participant list and was asked to allocate local site facilitators to complete the chart audits. Local site facilitators were not allocated charts to audit of clients for whom they were providing rehabilitation. Chart audits were to reflect the timeframe in which the majority of goal-setting was undertaken with clients in that service. Audits were done for weeks two and three of the client’s admission, where clients were admitted for less than two weeks all available rehabilitation documentation was included in the audit. Clinicians were able to enter the data into the audit tool on mobile devices and computers on wheels (COWs) on the rehabilitation ward to aid in the feasibility of completing the data collection. Data collection and analysis occurred concurrently within this study.
2.3.5 Data Analysis

The data collection instrument was pre-coded and data was exported to Microsoft Excel and IBM SPSS version 25.0 for analysis (IBM Corp, 2017). Data was cleaned and checked for missing data by the primary researcher. The specific goal attribute data and classification of the ICF level goals was re rated by the primary researcher. The quantitative chart audit data was analysed using descriptive statistics. Mean and standard deviations are reported where data did not violate assumptions of normality, and where these were violated medians and range have been reported.

Frequency distributions were used to describe who set goals and how the goals were set and the presence of goal attributes for each of the audited goals. The presence of action and coping plans was described in relation to each mode in which the goals were set, such as per discipline or by the team. This data was also represented with frequency distributions.

2.4 Study 2

2.4.1 Design

The second study evaluated the current level of client involvement in the process of goal-setting and the level of importance of the goals to the clients. As per the conceptual framework this study was designed to gather information on the importance of the goals to the client. Client interviews were used to evaluate the level of client involvement in the goal-setting process and client’s perceptions on how goals aligned to their values and beliefs. Information relating to client’s perceptions of self-efficacy in context of the goals was also collected. A quantitative survey tool was used to facilitate the interviews. This study recruited simultaneously with study 1.
2.4.2 Materials

The Client-centredness of Goal-setting tool (C-COGS) was used in this study to collect both quantitative and qualitative data (Doig, Prescott, Fleming, Cornwell, & Kuipers, 2015). The C-COGS was designed to evaluate the importance of the goals and client-centredness of goals set. The C-COGS tool is a quantitative tool based on a five-point ordinal Likert scale scoring system that can be administered either as a self-report or interview tool and was completed as an interview in this study.

The C-COGS tool measures three domains; the alignment of goals with the client’s values and beliefs, the client’s perceived participation in the process of goal-setting and the client-centredness of the goals set. The alignment sub-scale is scored out of five and designed to assess the alignment of the goals with the client’s beliefs and values. The second subscale of the client-centredness of goal-setting tool is titled participation. The participation subscale has been designed to measure the clients perceived level of participation in decision making, setting and planning the rehabilitation goals. Possible scores range from 6-25. The final subscale within the C-COGS tool is the client-centredness scale. Up to six goals were rated for their client-centredness, meaningfulness and importance to the client. The combination of the alignment, participation and client-centredness subscales result in a total C-COGS score rated out of 50. One component of the C-COGS tool has been removed from the quantitative scoring during validity testing, this question relates to whether or not family or friends were involved in the goal-setting as much as the client wanted them to be. For the purpose of this research this question was scored on the Likert scale but has been reported separately under the participation subscale. The C-COGS tool has been shown to have strong internal consistency and have substantial construct validity through correlation with self-perceived goal importance scores rated on the COPM. Test-retest
reliability of the C-COGS was found to be fair \((r= 0.49-0.79)\) (Doig et al., 2015; Doig, Prescott, Fleming, Cornwell, & Kuipers, 2016).

Client’s self-efficacy was evaluated using visual rating scales (0-10) to rate client’s confidence to achieve the goal. In addition to the C-COGS, clients were also asked if they had received information about goal-setting in rehabilitation or if they had received a copy of their goals during their rehabilitation stay (Appendix 2).

### 2.4.3 Participants

All adult clients admitted to the rehabilitation service during the study period as per study 1 were invited to participate in this component of the qualitative case study. Clients were excluded if they presented with severe cognitive, mental illness, communication or intellectual impairment that prevented them participating in the interview format. Clients were also excluded if they did not have sufficient English language skills to participate in the interview due to unavailability of professional interpreters for this study. Eligibility of the client to participate in the interviews was determined by the treating team at a multidisciplinary meeting. A maximum recruitment number of 30 participants was set a priori. All participants were required to provide written informed consent.

### 2.4.4 Procedure

Six clinicians participated in conducting the client interviews using the structured C-COGS tool. Local facilitators conducting the interviews were from the multidisciplinary team including; two occupational therapists, one dietician, one nurse, one physiotherapist and one speech pathologist.

The primary researcher trained the key facilitator and all local site facilitators volunteering to conduct the interviews. Local site facilitators were trained to consent the
participating clients. Following this initial training the key facilitator at the site conducted demonstration interviews with those clinicians requiring further support to conduct the interview. The key facilitator maintained the participant recruitment list and was asked to allocate local site facilitators to complete the client interviews following the chart audits. Efforts were made to assign local facilitators that were not directly delivering clinical care to the clients to perform the interview. Interviews were conducted following the chart audits so that information gained from auditing the medical record was available to facilitate the interview.

Clients were approached in person to participate by a local site facilitator and following an explanation of the study were asked to provide written consent. Clients were given copies of their consent and an attached information sheet. All consenting participants who met the eligibility criteria undertook the short-structured interview (15-30 minutes) with a local site facilitator. Interviews were audio recorded for review by the primary researcher. Interview data from the tool was added to the electronic database and linked to relevant audit and demographic data. The primary researcher took field notes on reviewing the recorded interviews. Field notes were used to validate quantitative data from the survey tool and to add rich descriptive data to the quantitative results.

2.4.5 Data Analysis

Client interview data was calculated from the C-COGS. Data was visually inspected to determine normality. Descriptive analysis was completed with median scores and ranges recorded as appropriate to present total C-COGS scores and subscale scores. Median data was also used to represent the client’s self-efficacy in goal achievement.
2.5 Study 3

2.5.1 Design

Study 3 evaluated clinicians’ experiences in client-centred goal-setting practices in the rehabilitation unit using a focus group interview with clinicians from the rehabilitation unit (Holloway & Wheeler, 2013). The teamwork mechanisms within the conceptual framework were investigated in the focus group through analysis of multidisciplinary, interdisciplinary practices and clinicians’ perspectives. Barriers and facilitators within the local rehabilitation unit were also investigated to further define and design goal-setting interventions in future phases of the project.

2.5.2 Materials

A focus group was chosen to review rehabilitation team member’s interactions and the team’s approach to goal-setting practices as a group. Focus groups were chosen over individual interviews to enable a discussion between team members about the topics presented. An interview guide was developed to guide the focus group and is presented in Appendix 3. The interview guide aimed to facilitate exploration of the meaning of client-centred goal-setting to the individuals and the rehabilitation team, explore the current practice and the pros and cons of the current goal-setting procedure within the unit. Suggestions for future improvements to goal-setting practice were also explored in the focus group.

2.5.3 Participants

Clinicians working within the multidisciplinary team were invited to participate in the focus group if they were providing rehabilitation care and participate in goal-setting practices with rehabilitation clients. Eight clinicians were purposively sampled by the key facilitator to participate in the focus group. Efforts were made to ensure
representation of at least one member from each discipline of the treating team and to ensure leadership figures from the rehabilitation team were also present. Clinicians were made aware that their participation in the focus group was voluntary and all information would remain confidential and de-identified during reporting. Clinicians were able to withdraw from the focus group at any time if they did not wish to continue. All clinicians were consented by the primary researcher and provided written consent. A maximum recruitment number of eight clinicians was identified for this phase due to time constraints and the overall size of the team at this rehabilitation service.

2.5.4 Procedure

The focus group was facilitated by the primary researcher accompanied by a second member of the research team to assist in the taking of field notes, prompting of clinicians and interpretation of non-verbal signals. Both the researchers had previous history working with the senior allied health team leader, however the remainder of the focus group participants were otherwise unknown to the researchers. Both researchers have a background working clinically in generalist rehabilitation teams.

The focus group was audio recorded and transcribed verbatim by the primary researcher. Due to the limited number of discipline representatives, names of clinicians were de-identified and pseudonyms have been used in the reporting to ensure anonymity. Both researchers took field notes throughout the focus group that were used to enhance data collection and analysis.

2.5.5 Data Analysis

The focus group was analysed using an inductive approach by two researchers (AB and AK). One member of the research team (AB) completed the written transcription of the focus group allowing her to familiarise with the content. Both
researchers then read through the written transcripts identifying common themes. Each researcher independently developed a set of initial codes from the transcript. The focus group transcript was coded by the researchers using Nvivo 11 software (QRS International Pty Ltd, 2012). Researchers then met to discuss the initial coding and co-created a set of codes that were used to finalise this initial stage of analysis. One researcher AB developed a list of themes from the codes which she discussed with AK and an additional member of the research team (PC) to confirm the themes and categories. The themes and categories were then reported back to the rehabilitation team to determine if they resonated with the rehabilitation clinicians. No changes to themes or categories were recommended through this process.

2.6 Data Triangulation

Collecting multiple forms of data within this qualitative case study allowed for more complex analysis of the goal-setting practices. Data from audits, interviews and focus groups were triangulated thus enhancing the data credibility and strengthening the study findings. The Consolidated Criteria for Reporting Qualitative Research (COREQ-32) standards have guided the reporting of these qualitative study findings (Tong, Sainsbury, & Craig, 2007).

2.7 Ethical Considerations

Ethical approval for this study was granted by The Prince Charles Hospital, Health Ethics and Research Committee (HREC/17/QPCH/341) and Griffith University (2017/893) (Appendix 4). The risk for this study related to inconvenience to clients and clinicians and therefore was of low to negligible risk. However, this inconvenience was mitigated as follows:
• The local site facilitators were advised of time requirements for completion of audits prior to commencement of the study.

• Accommodations were made to interview clients around scheduled therapy and treatment times to ensure no interruption to clinical care.

• Focus groups were kept to a maximum of one hour and were scheduled according to team preference to avoid conflict with clinical care and utilise existing scheduled meeting times.
Results
3.0 Results

This chapter presents the key findings from this qualitative case study program of research that incorporated three studies. The three studies of the research were completed concurrently resulting in overlap of participants between studies; however, the results for each study will be reported separately. Overall demographics of the case are presented along with basic participant demographic information and recruitment numbers for each study followed by the key study findings.

The rehabilitation service in this research project was similar to many rehabilitation wards outside of metropolitan specialist centers in Queensland. According to the AROC 2017 report the majority of the service’s case mix was made up of clients who required reconditioning (20.65%), recovery following fracture (27.17%) or rehabilitation following stroke (22.46%). The population was slightly younger (71yrs.) than the national average published in the most recent AROC 2017 report (74.20 yrs.). The overall FIM admission score for this rehabilitation service (70.60) was lower than the national average in 2016/2017 (88.9) reflecting a slightly more impaired population (Australian Health Outcomes Collaboration, 2017). The rehabilitation service was made up of a comprehensive allied health, nursing and medical team providing care to the rehabilitation clients similar to other units outside of specialty centers in Queensland.

3.1 Study 1- How is goal-setting structured?

Prior to commencing analysis of the data obtained from the medical record audits, data cleaning was undertaken to detect and amend inaccurate or missing entries. No missing data was identified relevant for study 1.
3.1.1 Participants

A total of 30 consecutive client medical records were audited over a period of 3 months. Prior to requiring rehabilitation 27 clients (90.00%) were previously independent with their mobility around the home and 19 clients (63.33%) were previously independent with their activities of daily living. The mean age of clients admitted to the rehabilitation service during this time was 70.43 years (± 11.71). Twelve (40.00%) clients admitted to the service during the recruitment period were stroke survivors, six clients (20.00%) were recovering from fracture and five clients (16.67%) were admitted for reconditioning with a smaller proportion of clients recovering from orthopaedic surgery (10.00%, n= 3), cardiac disorders (6.67%, n=2) and other neurological conditions (6.67%, n=2). The median FIM admission score was 77 (range 18-108) reflecting a moderate level of impairment, with a median FIM-Motor admission score of 49.50 (range 13.00-77.00) and median FIM-Cognitive admission score of 28.00 (range 5.00-35.00). Thirty percent of clients (n= 9) were identified as exhibiting a cognitive impairment and 43.00% (n= 13) exhibited communication impairment that were not ameliorated by aids.

3.1.2 Mode of goal-setting delivery

The audit revealed that all thirty clients admitted during the study period had at least one goal documented in their medical record within the first three weeks of their rehabilitation admission. A total of 193 goals were documented across the medical records of these 30 clients. Therefore, the median number of goals set per client was five, however the number of goals set for each client ranged from 2 to 22 over the two-week period.
Of the 30 clients attending the rehabilitation service 29 clients (96.67%) set goals with individual disciplines and 13 (44.82%) of these 29 clients had additional team goals set at a case conference. The goals for one client were set only at case conference by the team. Of the 193 goals set, the team set 28 goals together at a case conference or team meetings. Clients were present with the team when goal-setting on three occasions (10.00%) and in only two cases (6.67%) the clients were not involved in goal-setting at all.

In 25 of the 29 cases (86.20%) where goals were set with an individual discipline, the predominate professions were physiotherapy (102 goals) and occupational therapy (38 goals). Goals were also set by medical officers (n=8), speech pathologists (n=7), nursing staff (n=4), dietitians (n=2) and social workers (n=1). Three goals were identified as set by one member on behalf of the team but the discipline for this team member was not recorded in the audit.

3.1.3 Classification of Goals

The majority of goals set (n=120, 62.18%) were identified as targeting an activity level with 19.69% of goals identified as being set at a participation level (n=38). A further 20 goals (10.36%) were classified as addressing an impairment of body structure or function whilst the remaining 15 goals (7.77%) focused on clinicians actions rather than being client-focused goals. Examples of goals by classification are listed in table 2 below.
### Table 2. Classification of Goals using the ICF

<table>
<thead>
<tr>
<th>ICF Domain</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation goals (19.69%)</td>
<td>“Return to playing soccer”</td>
</tr>
<tr>
<td></td>
<td>“Return to work”</td>
</tr>
<tr>
<td></td>
<td>“Return home to care for husband”</td>
</tr>
<tr>
<td>Activity level goals (62.18%)</td>
<td>“Mobilise independently with 4ww”</td>
</tr>
<tr>
<td></td>
<td>“Walk to and from the toilet and meals”</td>
</tr>
<tr>
<td></td>
<td>“Independent showering”</td>
</tr>
<tr>
<td>Impairment level goals (10.36%)</td>
<td>“Get rid of dizziness”</td>
</tr>
<tr>
<td></td>
<td>“Improve dynamic standing balance”</td>
</tr>
<tr>
<td>Clinicians actions (7.77%)</td>
<td>“Establish safer showering environment”</td>
</tr>
<tr>
<td></td>
<td>“Therapy 30 mins daily”</td>
</tr>
<tr>
<td></td>
<td>“Investigate hypertension”</td>
</tr>
</tbody>
</table>

#### 3.1.4 Goal Attributes

Table 3 reports the proportion of goals that were identified as including the specific goal attributes audited in this study ranging from zero to all four attributes. Only three (1.55%) goals included all four specific goal attributes, whilst 61 goals (31.61%) possessed none of the goal attributes. The environmental or life context for the goal was described in 40 (20.73%) goals, how well the goal needed to be done was
outlined in 117 (60.62%) goals, how much of the goal needed to be done was described in 16 (8.29%) goals. The inclusion of a goal timeframe was only found in 46 (23.83%) of the recorded goals.

**Table 3. Presence of Goal Attributes for each goal**

<table>
<thead>
<tr>
<th>Total goal attributes</th>
<th>Number of goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>61 (31.61%)</td>
</tr>
<tr>
<td>1</td>
<td>63 (32.64%)</td>
</tr>
<tr>
<td>2</td>
<td>54 (27.97%)</td>
</tr>
<tr>
<td>3</td>
<td>12 (6.22%)</td>
</tr>
<tr>
<td>4</td>
<td>3 (1.55%)</td>
</tr>
</tbody>
</table>

Action and coping planning were evaluated at the level of the client and the discipline setting goals with that client. It should be noted that more than one goal may have been identified per discipline for each client. The number of times at least 50% of the goals had an action or coping plan is recorded in table 4. Whilst physiotherapists and occupational therapists set a high portion of the goals with clients, clinicians goal related actions were identified in just over one-third of cases whilst client goal related actions were identified in less than 20% of cases. The team set goals for 14 clients and clinician actions were present in two cases whilst barriers to the actions were documented in one case. Goals were also set by dieticians, social workers, speech pathologists, medical officers and nursing staff. Social workers set one goal and accompanied this with a clinician action, identified barriers and put in place coping
plans. Minimal clinician action plans, client action plans, barriers or coping plans were identified by the local facilitators for goals set by dieticians, medical officers, nursing and speech pathologists.

**Table 4. Occasions of action and coping planning by discipline**

<table>
<thead>
<tr>
<th>Cases of goal-setting</th>
<th>Clinician Action Plan</th>
<th>Client Action Plan</th>
<th>Barriers identified</th>
<th>Coping Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiotherapists</td>
<td>10 (34.5%)</td>
<td>5 (17.24%)</td>
<td>2 (6.90%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>(n= 29)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupational Therapists</td>
<td>5 (33.33%)</td>
<td>0 (0%)</td>
<td>1 (6.67%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>(n=15)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dieticians</td>
<td>0 (0%)</td>
<td>1 (50.00%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>(n=2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Workers</td>
<td>1 (100%)</td>
<td>0 (0%)</td>
<td>1 (100%)</td>
<td>1 (100%)</td>
</tr>
<tr>
<td>(n=1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The team at case conference (n=14)</td>
<td>2 (14.29%)</td>
<td>0 (0%)</td>
<td>1 (7.14%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Speech Pathologists</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>(n=3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Officers (n=4)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
</tbody>
</table>
3.2 Study 2 - Client-centredness of goals set

3.2.1 Participants

Thirty clients were screened to participate in study 2, with 17 clients meeting inclusion criteria and consenting to participate. These clients were recruited consecutively from admitted clients within the study period and who had been identified in the medical record audit of phase one. Of the 30 clients screened for inclusion, nine declined to participate, three clients were excluded due to communication or cognitive impairments, and one client was discharged prior to being approached to participate. One client failed to answer a component of the C-COGS subscale of client-centredness, hence a total of 16 clients were included in the analysis of the total C-COGS score and client-centredness subscale score. All 17 clients were included where questions contributing to the alignment and participation subscales where provided.

Of the clients interviewed six (35.29%) were stroke survivors whilst four (23.53%) clients were admitted for reconditioning, four (23.53%) clients were recovering from a fracture, two (11.76%) clients required rehabilitation related to a cardiac condition and one (5.88%) client had a neurological condition. The average age of clients participating in the interviews was 66.29 ± 10.49 years. The median total FIM score on admission was 84.00 (range 56.00-108.00), with a median motor subscale score of 53 (range 26.00-73.00) and median cognition subscale score of 29.00 (range 18.00-35.00). Of the clients participating in the interviews, all 17 clients (100%) were
previously independent with their mobility, 11 (64.71%) were previously independent with their personal cares and all 17 (100%) were previously independent with their communication.

Within the interview clients completed the C-COGS questionnaire and were also asked if they had received information relating to goal-setting during their rehabilitation. Nine (52.94%) of the 17 clients interviewed reported receiving information about goal-setting during rehabilitation whilst only two (11.76%) of the 17 clients interviewed reported receiving a copy of their goals throughout their inpatient rehabilitation stay.

Clients reported a high level of confidence in achieving the goals set for their rehabilitation. Median client confidence rating was found to be 9.17 on a 10-point VAS (range 4-10). Three clients interviewed demonstrated self-determination stating, “If you have got confidence you have got everything” (Client 8) and “I had already set my goal before I even got here” (Client 3). One client reported the process as unnecessary and felt that the activities and goals he was going to achieve were obvious. He also expressed that the tasks given to him to work on his goals were “boring, repetitive and unnecessary” (Client 9).

### 3.2.2 Client-centredness of Goal-setting

The median total C-COGS score representing overall client-centredness of goal-setting was 44.41 (range 30.25-50.00). This result represents a reasonably high level of perceived client-centredness based on client reporting, although there was variability within the sample.
3.2.2.1 Alignment

Responses of 17 clients were included in the alignment subscale score. A median alignment score of 4.00 (range 1.00 – 5.00) was reported by clients indicating that the client’s goals were perceived to align well with their values and were what they wanted to work on in rehabilitation. As one indicated “it’s something I want to do and because it is my goal” (Client 12).

Most clients agreed on the alignment of their goals, however one client reflected that “it was more on their professional opinion than my opinion of what I thought would be best for me” (Client 6). Two clients identified the need for shared decision-making and advice from the health professionals with one client responding to the question “Is this your goal?” stating “Well yes and no, because at first I didn’t realize I wasn’t looking to the left, so they had suggested it to me and then I realized once it was pointed out” (Client 15).

Whilst clients reported that they wanted to work on the stated goals when answering the Likert based C-COGS questions, four clients couldn’t recall their goals at all and had difficulty understanding the goal as it was read back to them. Upon being asked if he had set rehabilitation goals with the team one client stated, “Well I probably have I just can’t recall” (Client 10). Other clients could state goals using medical terminology and precision “walk seven meters with my single point stick” (Client 3).

3.2.2.2 C-COGS Participation Subscale

Responses of 17 clients were included in the participation subscale score. The median total participation subscale score was 21.00 (range 10.00-25.00). Some clients felt they were involved and could remember specific people they set goals with while others expressed a disadvantage due to a lack of preparedness to participate. One client commented that “it’s a great idea but probably if I had known more about what was
involved it would have been an advantage” (Client 17). Several clients expressed their perception that clinicians didn’t have the time to spend with them and one client felt that the goals were directed mostly to get him out of hospital;

> the very first target that was set...was when am I walking out the door?
and we have actually worked backwards from that to achieve, so the goals have been yes there was a collective idea of all the things that I wanted to do but it all hinged on saying well I’m going to be out of here on that day, what do I need to do to achieve it (Client 4).

Communication between the rehabilitation team and client was highlighted as a concern for one client stating, “Bad communication too many things are said what’s not true and then not communicated at all through it, not enough review to keep your brain confident in what’s happening” (Client 8).

Eleven clients agreed or strongly agreed that their friends and family were involved in setting the goals, whilst 5 clients (29.41%) disagreed or strongly disagreed that their family were involved as much as they wanted them to be. One client stated they wanted their family more involved but felt this wasn’t possible due to “timing” on the rehabilitation ward (Client 1).

### 3.2.2.3 C-COGS- Client-centredness Subscale

Responses of 16 clients were included in the analysis of the client-centredness subscale score. The median score for the client-centredness subscale was 19.21 (range 15.33 – 20.00). Most clients (n=15, 93.75%) agreed or strongly agreed that their goals were meaningful to them. Fifteen clients agreed or strongly agreed that the goals were relevant to their everyday life. Sixteen clients (100%) agreed or strongly agreed that
they were motivated to work on their goals. However only 12 (75%) clients agreed or strongly agreed that they felt they owned all the goals set.

3.3 Study 3 – Clinicians’ Experiences of Client-centred Goal-setting

3.3.1 Participants

Seven clinicians consented to participate in the focus group. These clinicians represented a cross-section of disciplines and leadership levels within the team including allied health leadership, nursing and medical leadership. The focus group comprised of two nursing staff, one medical officer, and four allied health professionals across the discipline of dietetics, occupational therapy, physiotherapy and speech pathology. All rehabilitation team member participants in this study were female and the median age of the rehabilitation team member participants was 34.50 (range 27-43). Overall the rehabilitation team had median of 11 years of experience in their various professions (range 4-20) and a median of 8 years (range 2-14) of experience working clinically in rehabilitation settings.

3.3.2 Clinicians’ perspective of client-centred goal-setting

Thematic analysis of the transcripts revealed four main themes were discussed during the focus group. Across these four themes it was noted that much of the discussion related to the health professional team members, culture and organisational factors, with a lesser focus on the impact or meaning of goal-setting to clients. The four themes that were established and are reported below were; (1) Need for a shared vision, (2) Knowing what and how (3) The Agenda, and (4) The Team.

3.3.2.1 Need for a shared vision

The need for a shared vision was the strongest theme identified from the analysis of the focus group and referred to a shared vision within the health professional team.
The lack of a shared vision appeared to be related to two categories; *the silo model of rehabilitation* and *the role of the client in goal-setting*.

The current *silo model of rehabilitation* took a multidisciplinary approach rather than an interdisciplinary approach resulting in clinicians completing assessments and goal-setting individually with clients. This individual goal-setting meant there was a lack of focus on common goals that the team were working towards together. “I think it’s quite different between disciplines” (Marge) “I think we all kind of do it individually” (Anna) “and between patients as well it’s very different” (Gillian). The lack of interdisciplinary approach also meant that there was limited coordination of rehabilitation activities towards client rehabilitation goals with clinicians prescribing individual therapy programs relevant to their discipline based goal. As Gillian stated;

> you do have a quick conversation about goals you know what you are working on, the patient knows at an individual discipline level what you are working on but I think as a team sometimes we are not sharing that because we are all just so busy and we are not investing the time to stop and make sure we have got the same information and that we are all going in the same direction (Gillian)

The challenge and need for a more coordinated approach to rehabilitation among the team members, was highlighted by one clinician stating, “I think that’s the challenge with goals is about the whole team sharing their understanding because if we don’t there is differences across the team” (Marge).

Clinicians did identify opportunities and previous attempts to coordinate a more interdisciplinary assessment and goal-setting process for rehabilitation, however this
was driven primarily by allied health and did not extend beyond the initial phase for rehabilitation.

Gillian: we had a paper form that was called a rehab admission profile and it was all broken down into all those sections and we had an initial for each section, so each of us would fill in our one section and initial it off and that was our profile of the patient when they arrived

Anna: but that didn’t really include goals, more just their initial assessment

Gillian: it did but it was taken off because it wasn’t used

Case conference was identified by the team as being the primary place that the team were together to discuss client goals, rehabilitation activities and progress. “I think that is the one time that the whole team is together talking about patients with their goals and how we’re progressing towards them” (Gillian). Clinicians identified the lack of goal focus in case conference discussions and the opportunity to facilitate a more goal-focused discussion within case conference was identified as a means to improve their current teamwork.

that’s our opportunity for each discipline to recognise how they are contributing to that goal... Like, how can we all actually contribute to that goal in different ways? There are ways we can do that differently that actually tie the team together (Gillian).

Communication between the allied health team, nursing and medical team members present at case conference and the daily nursing staff working on the ward was identified as a barrier to coordinated goal-setting and reinforcement of client goals within the team and on the ward. One clinician identified: “I guess it’s about communicating that goal to other disciplines, particularly nursing” (Lucy), with a
nursing staff member present agreeing by stating “sometimes for nursing you don’t have time to go back and read in the chart what the persons goals are and sometimes the patient can’t remember (Marge). The need for communication of goals beyond the case conference and individual disciplines was highlighted by Jessica who stated that it is important for everyone, particularly nurses to understand the client’s goals “because we carry out what everyone else plans for them”.

It was revealed that attempts had been made previously to improve goal focused communication with the client and nursing staff using goal boards which had been well received by the clients and clinicians but not consistently implemented across the service;

as far as process goes I think we mentioned the pasting paper and that sort of thing...we certainly don't do it for every patient it's probably more on a case by case basis, where we are identifying that this patient is maybe not participating as well as what we hoped (Melanie).

No formal process existed for implementing a goal board and often the current rationale for introducing one was failed attempts to engage the client in rehabilitation. As Gillian mentioned goal boards were used as a strategy that was “more reactive than proactive”. Nursing staff however identified the benefit of the goal boards for team communication;

I prefer to have the goals up on the wall to be able to look at because then it does give you an idea of what you are going to be doing with that patient because sometimes or more often than not you have the patient saying aww, no I can’t do this in the shower and I need help with this and then you’ve got the OT saying- they can do that (Jessica).
There was less focus on including the client and family as part of the shared vision of the team. The role of the client category seemed to place the client in a more passive role within the rehabilitation team rather than active participant. The rehabilitation team discussed the benefits of communication between themselves and clients as beneficial, particularly as a facilitator for achieving adherence to the rehabilitation process. Engaging clients in goal-setting was seen as a way to promote engagement in therapy rather than promoting clients right to self-determination; “by getting them involved in that active discussion round setting their own targets, that you tend to get more buy in from them.” (Gillian). Further, communication between the team and the client’s families was stated as being dependent on how engaged the family were, rather than a process of inclusion facilitated by the team. As Anna stated it “depends on how engaged the family are and if they are around as to how much that’s fed back to them as well”.

3.3.2.2 Knowing what and how

The second theme identified within the focus group was ‘Knowing what and how’. Clinicians identified that whilst client-centred goal-setting was ‘ideal, but, in reality and practice its actually hard to get right” (Melanie). The theme outlined the clinician skill and knowledge required to facilitate goal-setting interactions and was identified to have four sub categories which were: Challenging client characteristics, Goal-setting abilities, Clinicians’ knowledge of goal-setting and Client preparedness for goal-setting.

The group identified specific characteristics of their clients made developing client-centred goals challenging. Within the category of Challenging client characteristics, it was evident that some of the challenges may have been acquired due to their health condition, while others may have been pre-existing traits. The group
identified their rehabilitation population contained a significant proportion of cognitively and/or communication impaired clients as well as those with Non-English-Speaking Backgrounds (NESB). Difficulty in engaging clients with communication and cognitive impairments in the goal-setting process was discussed. As Jane mentioned “The challenge we do have is here is that their cognition means that sometimes they are maybe insightless to their impairments and function so it ends up being therapist directed” (Gillian). Even members of the multidisciplinary team (e.g. occupational therapists and speech pathologists) who are trained to work with this client population highlighted the difficulty they encounter; “if you are trying to engage them in that client-centred goal-setting who might have cognitive or communication impairment that can be an extra challenge on sort of trying to engage those patients” (Anna).

Team members also identified that the lack of insight and awareness that clients can sometimes demonstrate was a significant barrier to setting ‘realistic’ goals. Clinicians spoke frequently about clients setting ‘unrealistic’ goals and felt it was their role to make the client’s goals ‘realistic’ so they could be achieved within their service model. One clinician commented on the need for a therapist led approach to goal-setting saying, “well that’s to make them achievable because otherwise you are setting them up to fail, so I suppose it’s that fine line between them being something that the patient wants and something that we think is achievable” (Marge).

Clinicians also expressed frustration at clients who possessed what they perceived as passive personality traits. They felt they were unable to influence their level of engagement of clients with these passive personality traits in the goal-setting process as highlighted by Melanie; “the ownership though, it’s frustrating because they are not owning it and I think that is a real, that’s a frustration and a struggle, because you can’t make it happen” (Melanie). Whilst clinicians tended to highlight client factors
as a reason for lack of engagement in the goal-setting, there was some
acknowledgement of the role the team and organisation might play in motivating and
empowering clients. Gillian stated;

    but that's what we don't know, we don't know how much of it is patient
factors and how much of it is the facility and the culture and our processes we
don't know what's causing the bigger thing because if the environment is
actually doing that we can change that more so than if it is the patient factors.

The second category in Knowing what and how related to clinicians skills,
specifically their Goal-setting abilities. Identification of long term goals was not
highlighted as a problem, however difficulty in breaking these down into shorter term
goals was highlighted as problematic. As Lucy commented; “I think we may be lacking
in the skills to break those goals down into plans and more meaningful things for
patients”. Group members also highlighted that individuals need to be quite skilled to
facilitate clients identifying both long and short-term goals, as demonstrated by this
quote;

    Takes a lot of skill on the staff’s part to sort of work with a patient
with that kind of motivational interviewing, really good communication
skill... engage the patient, get the rapport but not to shoot down their first
goals that they say (Gillian).

The further two categories in Knowing what and how involve a lack of
knowledge pertaining to key concepts of client-centred goal-setting which have been
divided into: Clinicians knowledge of goal-setting and Client-preparedness for goal-
setting.
Clinicians’ knowledge of goal-setting and how to achieve client-centred goal-setting appeared to be based in confusion around key concepts such as client-centred, client directed, and shared decision-making. Goal-setting was discussed very much as a dichotomy between client-led or therapist led processes with limited understanding of how shared decision making can facilitate client-centred goal-setting.

*I think it’s the clarity for everybody for the patient to understand that their goals are their goals and that they own them and they need to be a participant in the journey and that the team can't just, the team can’t just give them goals to work towards and give them exercises to work towards* (Gillian).

This quote from Gillian however suggests an emergent understanding of the need for client engagement in goal-setting processes, that it is not just the responsibility of the therapist or team.

Discussions during the focus group revealed that clinicians perceived goal-setting as complete once the goal negotiation and writing phase were concluded. Their knowledge of how to translate and communicate the required actions and review of goals with the client after this initial phase was limited. In fact, some clinicians may not have seen the value of these ongoing goal-setting process; “*if you have identified a goal to walk and they are practicing walking, I would think that it would be pretty obvious*” (Melanie). Inconsistency in the application of goal-setting beyond the initial stages was evident in discussions with a tendency to restrict this practice to specific populations; “*I think also a lot of the time we focus giving feedback to patients on those patients that are making such tiny little gains because they don't see the gains*” (Marge).
A smaller focus of this theme was *Client preparedness for goal-setting*. Clinicians discussed that clients were often not informed about the purpose or role of goal-setting in rehabilitation and this was a barrier to implementing client-centred goal-setting. They highlighted that “*the expectations of our patients around this is actually really really low*” (Melanie) and that clients do not know what to expect from rehabilitation. Within this study there appeared to be two different perspectives that clinicians had when they referred to ‘client’s expectations’. Firstly, clinicians were concerned that clients attending rehabilitation services don’t know what to expect regarding the active participation required in rehabilitation activities and the effort required throughout their recovery.

*I think it is the patient when your like, come on you know that you can walk into the dining room, I have told you that, you have got the green sticker on your wheelie walker and its written on the board and everyone is encouraging you and yet like I still see you sitting in the wheelchair* (Melanie).

On the other hand, clinicians also referred to outcome expectations and the discrepancies between client outcome expectations and clinician’s outcome expectations with some clinicians feeling they needed to deliver the expectations prior to commencing rehabilitation in order to have clients agree and participate in their rehabilitation plan and avoid false hope. One clinician stated that she would announce her expectation of rehabilitation outcomes on assessment in order to influence client expectations early;

*we will be looking more at wheelchairs with the family to get that sort of early understanding because I think a lot of times we bring people across and if*
we don't have that discussion their expectation is very different to what we really think (Lucy).

There was no discussion around the existence of standard approaches to orienting clients to the rehabilitation context and how goal-setting would form part of the process.

3.3.2.3 The Agenda

Organisational level pressures were identified as a barrier to implementing client-centred goal-setting and this theme has been titled The Agenda. Clinicians expressed difficulty in marrying the concept of client-centred goal-setting to organisational demands of ‘getting them to a certain level to get home’ (Marge). Clinicians stated they often felt their actions were driven by the organisational demand with Gillian commenting that “person centered goal-setting is this big broad idealistic thing that sometimes we maybe struggle to achieve in the setting, because the setting dictates what you work on”.

Rehabilitation team members described seeing significant variation in the length of stay for clients in their rehabilitation context. They indicated that not having time to set goals with clients was a barrier to client-centred goal-setting, particularly where length of stay was less than 2 weeks. Group members indicated the time taken to engage in goal-setting with these clients was less of a priority and it was stated that the “processes are not there for the fast ones” (Gillian). While there was a suggestion of different processes for different clients based on time in rehabilitation, there was also a general sense that organisational time pressures influenced goal-setting practice. As Jane stated:
reflective of time, it is time consuming to invest that, get the whole team together or even sit down and do the goals setting with the patients, so that when you have a turnover of patients its fast and you are feeling under pressure I think it does fall to the bottom of the priority list.

3.3.2.4 The Team

Team culture was the final theme identified within the focus group which was seen as both a potential barrier and facilitator. Team members expressed a need to be able to trust each other to decrease the overlap in assessments and goal-setting discussions. Melanie referred to a previous successful experience implementing interdisciplinary practices in a team where trust in your colleagues was integral to the achieving client-centred goal-setting, as reflected in this quote:

\[
\text{defining the skills that are required to facilitate that goal-setting and the communication across the team...that side of things was so important for the process to be successful to be able to confidently go ‘well I know that ... is going to have the same type of conversation that I would have with the patient in communicating that in the same way and you not feeling like you have to revisit things.}
\]

All team members were positive about the general team environment within this rehabilitation setting; their ability and desire to move towards a more interdisciplinary approach to rehabilitation goal-setting. This is reflected in this quote: “the enthusiasm from the team, I think the team recognises that this is an area that is really important and that we would all like to contribute to but we just don't quite know how to make it work the best way for our team” (Melanie).
3.4 Summary

Drawing on the findings of all three studies within the larger qualitative case study of one inpatient rehabilitation site the results suggest that whilst goal-setting was undertaken with all clients entering the rehabilitation service, room to improve client-centred goal-setting practice exists.

Study 1, a medical chart audit revealed that the rehabilitation goals set for clients lacked specificity and did not appear to direct rehabilitation interventions and treatment plans. Clinicians identified that they lacked knowledge and skill in setting specific goals and breaking down bigger goals, this was consistent with the lack of goal specificity identified in study 1. The lack of goal direction in treatment plans was confirmed in study 3 (focus group) where clinicians expressed dissatisfaction with their silo model of providing rehabilitation care and identified a need for a more interdisciplinary approach. Clinicians felt that a more interdisciplinary approach to goal-setting would improve client-centredness, team communication and direct rehabilitation activities. Clinicians felt that they aimed to practice in a client-centred model and quantitative data from study 2 (C-COGS interview) supported that the team were client focused, however clients expressed lower scores in relation to their participation in goal-setting processes. The limited direct involvement of clients in goal-setting processes was also reflected in the focus group discussions (study 3). Overall the data collected across the three studies was consistent.
Discussion
4.0 Discussion

A qualitative case study approach was used in this program of research to gain a comprehensive understanding of goal-setting practice within an inpatient rehabilitation context in Queensland, Australia. Through this in-depth investigation of a single rehabilitation unit it was possible to gain insights from multiple perspectives – client, clinician and team – using multiple data sources. The study included analysis of the process and structure of goal-setting, the client’s perception of their level of involvement in goal-setting, and clinician’s perspectives on barriers and facilitators to implementing goal-setting in the rehabilitation unit. Overall, within this context the study found that whilst clients reported the goals aligned with their values, the process being followed may not have effectively incorporated the client’s perspective. Rather it appeared that goal-setting was being led predominantly by individual therapists for each client without a shared team approach to rehabilitation. Furthermore, on examination of the goals set and processes followed surrounding the implementation of goals in day-to-day rehabilitation it was noted that they lacked specificity, there was limited development of action plans related to goals, and review of goals was minimal. Clients perceived their rehabilitation goals to be client-centred, however this was not reflective of their levels of participation in the goal-setting process. In drawing together all sources of information evaluated in this study, it was evident that barriers existed to implementing client-centred goal-setting practice at three levels: the client, the clinician and organisation. Each of these findings have been identified in previous literature on goal-setting in rehabilitation (Plant et al., 2016; Rose et al., 2017), however how each component contributes, or not, to client-centred goal-setting within one setting was previously unknown.
Based on previous research related to goal-setting in rehabilitation, and clinical consensus that rehabilitation should be goal-directed, many national and international rehabilitation guidelines recommend including goal-setting as a core component of rehabilitation practice (National Institute for Health and Clinical Excellence, 2009; Smith et al., 2016; Stroke Foundation, 2017). The following discussion will synthesise the findings of the three studies conducted to develop a holistic understanding of the phenomena of goal-setting practices in this rehabilitation unit. Previous studies have investigated the structure of goal-setting (Plant & Tyson, 2017), client (Lloyd et al., 2018) or clinician’s perspectives (Leach et al., 2010; Lloyd et al., 2018; Plant & Tyson, 2017) but have not combined these or utilised a conceptual framework to allow researchers to understand if and how these goal-setting mechanisms and constructs interact and are conducted in clinical practice. The triangulation of these three studies provides an understanding of the interacting mechanisms and constructs of goal-setting as it has been conducted in this rehabilitation unit.

4.1 Summary of the findings across the three studies

A summary discussion of the three research questions addressed by each of the studies as part of the larger qualitative case study will be provided below. This discussion will allow the findings to be interpreted alongside the existing literature, before a synthesis of the findings to address the study propositions is presented in section 4.2 of this thesis.

4.1.1 Study 1- Current structure of goal-setting in inpatient rehabilitation

The structure of goal-setting practices in a single rehabilitation ward were investigated in study 1 and the findings supported those reported by Plant and colleagues (2017). In a review of multiple rehabilitation units in the UK Plant et al
Rehabilitation goal-setting: a case study

(2017) concluded that goal-setting in rehabilitation environments is well-established despite the absence of strong evidence to support its effectiveness. In fact, within the current study clinicians reported goal-setting to be key to their model of rehabilitation and this was confirmed by evidence of all clients having goals set within the first three weeks of their rehabilitation stay.

The areas of interest within this study extended beyond whether goal-setting was happening, to how it was being conducted and by whom within the rehabilitation team. The structure of goal-setting in this rehabilitation service involved individual disciplines undertaking assessments and then goal-setting individually with the client. This approach is consistent with previously reported approaches by Leach et al. (2010) and may align with a therapist led approach. The audit revealed limited evidence of coordination between the team members in setting rehabilitation goals.

While the overarching conclusion was that goal-setting occurred between individual disciplines and their clients, close inspection revealed that most of the goals were set by two of the disciplines (physiotherapists and occupational therapists, n=140). This was consistent with the multisite review by Plant and colleagues (2017) in which occupational therapists and physiotherapists set the majority of goals, and few were set by speech pathologists, social workers, medical officers or nursing. Due to the chart audit nature of data collection for this study the basis for these findings is not clear. One suggestion could be that this may reflect the rehabilitation needs of the inpatient rehabilitation clients in a generalist setting where most clients require interventions from these two disciplines but may not require the specialist skills of others such as speech pathologists.

A rehabilitation goal is defined as a ‘desired future state’ as the result of rehabilitation activities (Levack et al., 2015), however it has previously been noted that
not all goals meet this definition. In the review by Plant et al (2017) slightly over a quarter of the goals audited were related to clinician actions. In contrast, in this study only 7.77% of documented goals defined clinician actions rather than the desired future state of the client. The statement of clinician actions as goals possibly demonstrates a lack of clinicians’ understanding of the differences between rehabilitation goals and actions, although this was less prevalent in the current study than previous research (Plant & Tyson, 2017).

Goals focused on client outcomes was a positive finding of the study and close examination of the nature of these goals was undertaken to identify if they would be motivating and important to clients as per the conceptual framework. We know from previous literature that goals should be meaningful to the client’s individual circumstance to enhance their motivation in rehabilitation (Siegert & Taylor, 2004). Within the audit we sought to classify the nature of goals using the ICF, based on the assumption that participation and activity goals would be important and meaningful to clients. The audit data showed that 62.18% of goals were set at an activity level and included activities of daily living, mobility and balance goals with a further 19.69% of goals set with respect to participating in a life event. A similar proportion of activity and/or participation level goals were reported by Plant et al. (2017) in the recent review of goal-setting practices of which, many of the clients goals related to mobility, transfers and balance with a smaller number related to activities of daily living (Plant et al., 2016). Plant et al (2017) found little inclusion of psychosocial or participation level client goals where only one goal targeting mood and one directed at carrying out a daily routine were identified. The focus on physical functioning goals including mobility and activities of daily living is consistent with the expertise of the disciplines observed to be setting the goals in this current study. The analysis of the goals within this study did not
reach the same depth as the Plant et al. (2017) study, but if a similar focus on physical functioning goals predominate they may lack meaningfulness to clients and may not enhance the mechanism of motivation.

It has been well-established that specific and challenging goals are likely to lead to higher levels of performance, with goal specificity and goal related activities included as part of the conceptual framework that guided this study (see section 1.3.2.2) (Locke & Latham, 2002). The SMART criteria is commonly referenced as a recipe approach to defining a specific goal in rehabilitation and 41% of goals set met the SMART criteria in the UK multi-site review (Plant & Tyson, 2017). However, using the recommendations of Bovend’Erdt et al (2009) this current study sought to define a specific goal as having goal attributes including; (1) an environmental context associated with the goal, (2) a statement about how well the goal needed to be done in relation to the nature or level of support, (3) a statement about how much of the goal needed to be achieved and (4) a time frame associated with the goal. In contrast to the earlier study, our findings suggest client goals are far less specific than required. Only three of the 193 goals possessed all four of goal attributes with the majority of goals (n=124) including one or none of the goal attributes. This discrepancy in findings may have arisen due to the strict criteria applied in this study or geographical variation in practice. Irrespective it demonstrates that rehabilitation clinicians experience difficulty in writing specific rehabilitation goals.

While having goals in rehabilitation is mandated by many guidelines, it should be noted that simply having goals is not enough if they are not specific enough to direct rehabilitation actions and selection of interventions. Setting goals in rehabilitation settings requires clinicians and clients to move beyond the initial goal identification and setting stage and use these goals to direct action plans and selection of rehabilitation
interventions as outlined in the G-AP framework. Action planning, coping planning, feedback and review are all components of goal-setting that were included in the conceptual framework that guided this study (see section 1.3.2.2). Throughout the audit local facilitators recorded that it was often not evident to them that documented rehabilitation actions were directly related to the identified goals. Physiotherapists and occupational therapists set clinician action plans approximately 30% of the time when setting rehabilitation goals with clients. Among all the disciplines fewer goal related actions were given to the clients overall. Furthermore, in instances in which action plans were documented, barriers to completing them were rarely considered and coping plans to address barriers were virtually non-existent. This may reflect a problem with documentation however, this cannot be determined through the audit data. This finding contrasts to a community rehabilitation goal-setting practice study in the United Kingdom where approximately 60% of respondents reported incorporating action plans, barrier identification and coping planning regularly in their practice (Scobbie, Duncan, et al., 2015). In the goal-setting practice review undertaken by Plant and colleagues (2017) 60% of clinicians stated they reviewed goals regularly, however on inspection of clinical notes it was found that 48% of goals were never reviewed and 24% were simply stated ‘ongoing’. In this study, review of goals was only observed to occur in the medical record in 5.48% of cases (n=4).

Overall the process and structure of goal-setting in this rehabilitation unit is consistent with previous findings. Goals were predominantly set at an activity level by individual therapists with the client. These activity level goals lacked specificity and did not regularly incorporate actions related to goal pursuit.
4.1.2 Study 2 – The level of client-centredness and client involvement in goal-setting.

There have been few studies investigating shared decision making between rehabilitation clinicians and the client during goal-setting interactions (Rose et al., 2017). Study 2 was designed to evaluate the client-centredness of goal-setting and the level of client involvement in the process of goal-setting in this rehabilitation setting from the client’s perspective.

As included in the conceptual framework, alignment of client's goals with their values and beliefs has the potential to impact the importance of the goals to the clients and further impact their motivation and goal pursuit (see section 1.3.2.1). Clients in this study reported that goal-setting in this service was client-centred and aligned with their values and beliefs. Previous studies have highlighted client’s perspectives of the importance for clinicians to know who they are as a person and to accommodate their practices to their individual needs and preferences (Brown et al., 2014; D’Cruz, Howie, & Lentin, 2016; Lloyd et al., 2018). Based on the results of the C-COGs interviews in this study it would appear that this service may be achieving positive results in this area.

The degree to which goal-setting is ‘client-centred’ has been identified within the literature across a continuum from therapist-controlled to patient focussed (Leach et al., 2010). While on the surface the C-COGs data suggests goals were client-centred, examination of the participation domain of the C-COGS tool showed the lowest scores. Qualitative comments made by several clients implied that the approach taken to goal-setting in this context was more in keeping with a therapist-led approach. The therapist-led approach of goal-setting has been dominant within the previously published literature and was also found to be the prominent model of goal-setting in a study previously conducted in Queensland (Leach et al., 2010). In the current study, clients
appeared to accept this model as appropriate for their rehabilitation and lacked awareness of an alternative in which they could be a more active contributor. Whilst this approach to goal-setting is inclusive of the client it tends to be based more around assessment findings of the therapist and less around principles of shared decision making. Interestingly, a systematic review of shared decision-making models in rehabilitation goal-setting only identified three studies that met the inclusion criteria demonstrating minimal inclusion of shared decision making in current rehabilitation goal-setting literature (Rose et al., 2017).

A recent systematic review of the qualitative literature of client’s perspectives on goal-setting practices, clients expressed that they felt there was already a set plan for rehabilitation that they needed to follow (Lloyd et al., 2018). Client’s also indicated they felt clinicians were often too busy and the overriding goal was to ‘get them out’ of hospital. This was also identified in this study by clients stating that they felt the goals were primarily related to what they needed to do to get out of hospital. Lloyd and colleagues (2018) have identified both intrinsic and extrinsic factors that influence client participation in the rehabilitation. Intrinsic factors included client’s attitude, personality and their desire to be involved whilst extrinsic factors included the approach of the clinician, the busyness of the ward and the involvement of family and friends (Lloyd et al., 2018).

Client-centredness scores were high when rating the individual goals. Most clients felt that they were motivated to work on the goals (n=16) and that the goals were relevant to their everyday life (n=15). Fewer clients (n=12) in this study felt that they owned the goals themselves (n=12), this maybe reflective of the therapist-led goal-setting approach previously identified and the medical terminology utilised when stating the goals. The perception of client-centredness in the context of the therapist-led
approach is interesting to note and may be related to findings by Locke & Latham (2002) who described how individuals can work effectively towards goals which are assigned as long as they are motivated to do so.

Self-efficacy, expectations and mastery experiences were identified in the conceptual framework as important in influencing the importance of goals and motivating clients in their goal pursuit (see section 1.3.2.2). Preparedness for goal-setting interactions was therefore of interest to the research team. In this study clients expressed that they did not have enough information about goal-setting. Only 53% of clients stated that they had received information related to goal-setting and only 12% stated that they had received copies of their goals. Similarly, in the UK wide survey of services delivering community-based stroke rehabilitation it was found that giving clients information about goal-setting and giving clients a copy of goals was done routinely by less than 40% of respondents (Scobie, Duncan, et al., 2015). In the review by Lloyd and colleagues (2018) stroke clients in rehabilitation felt there were few opportunities to gain information related to goal-setting and rehabilitation and most clients felt they had no control over when these opportunities would arise. Whilst this study identified that the goals set were client-centred, there was less evidence of the client’s being considered as a partner in the process and being provided with information on how to be involved.

4.1.3 Study 3 - Clinicians’ experience of implementing client-centred goal-setting

Clinicians’ perspectives of the value and implementation of client-centred goal-setting in the rehabilitation service were explored within study 3. The focus group was received positively with all clinicians contributing to discussions. Four themes were highlighted from the focus group with the main theme describing a need for a shared
vision between clinicians and clients with a more interdisciplinary model of practice. The other themes tended to outline barriers to this desired model of goal-setting practice in rehabilitation.

4.1.3.1 Shared vision

Teamwork was highlighted as a key mechanism by which goal-setting may improve performance in rehabilitation and has been identified in the conceptual model outlined in the introduction to this thesis (see section 1.3.2.4). The main theme that emerged from the focus group interviews reflected that this rehabilitation team was operating within a multidisciplinary model of goal-setting and rehabilitation without a strong sense of a shared vision. The clinicians reported that the multidisciplinary model did not facilitate sufficient team communication and coordination of processes throughout the client journey. Teamwork has been included as a key mechanism as it involves improved communication, provides structure and can motivate professionals to perform in rehabilitation settings (Levack et al., 2015). Previous research has shown that interdisciplinary teamwork in stroke rehabilitation can have a positive effect on client outcomes, including reduced length of stay (Cifu & Stewart, 1999). This study indicated that regular communication with the whole rehabilitation team, inclusion of the client and coordinated common goal focus were desired components in the development of a shared vision for this team but not yet a reality.

The rehabilitation team members within this case study were keen to develop a more interdisciplinary model of goal-setting practice as a means to addressing this lack of a shared vision. Currently the team identified case conference as the primary place where these coordinated goal discussions could occur, however barriers were identified to sharing goals and rehabilitation actions with the wider rehabilitation team. This communication context excludes key members of the inpatient rehabilitation team,
specifically nurses and the client who were not present at a case conference meeting. Previous research has identified problems with involving medical and nursing staff in the rehabilitation goal-setting process due to these same barriers (Van De Weyer et al., 2010). Nursing staff in the current case study were not actively participating in goal-setting, which may reflect reduced recognition of their potential role in this process.

One paper published in 2012 outlined the nurse’s role in EASEing the goal-setting process through empowerment, advocacy, support and education (EASE) but did not specifically discuss the nursing role in establishing goals (Hartigan, 2012). Interestingly nursing staff who participated in the focus group described their primary role as to carry out the plans of the rehabilitation team. The current study findings may reflect nursing staffs’ perceptions that their role is to empower, support and advocate for the client and their rehabilitation goals.

The perception that a lack of a shared vision for clients rehabilitation was linked to suboptimal teamwork and limited team communication at this site had previously resulted in trials of client goal-boards. These boards were seen as a method to improving the coordination of goal-setting practice and communication of goals to the wider rehabilitation team. Previous research has included the concept of client held booklets or records to improve client ownership and participation in goal-setting practices but has not specifically investigated the effect of client records or goal boards on improving team communication (Scobbie, Wyke, Dixon, Brady, & Duncan, 2015; VanPuymbrouck, 2014). In this study health professionals viewed these goal boards as acting as a type of ‘contract’ to ensure client participation in the rehabilitation process.

The participation by, and expectations of clients in goal-setting were identified as a barrier to achieving a client-centred approach to rehabilitation practice within this case study. There seemed to be a suggestion that the inability to achieve a shared vision
Rehabilitation goal-setting: a case study

for rehabilitation arose from a breakdown in communication between clinicians and clients and/or family. The differences between client and clinician expectations has been previously reported as a barrier to staff engaging clients in goal-setting discussions (Plant et al., 2016). These discrepancies result in difficult and complex discussions, clinicians were noted to tend to avoid such situations (Levack et al., 2011; Plant et al., 2016).

4.1.3.2 Knowing what and how

Clinicians in previously reported studies have identified the high level of skill required to effectively engage clients in rehabilitation (D'Cruz et al., 2016; Plant et al., 2016; Rose et al., 2017). Specific skills required include having goal negotiation discussions, maintaining hope and dream-based goals, whilst assisting the client to develop more tangible short-term goals. Breaking goals down and creating action plans that relate to the overall goals was also a skill identified as being required for successful goal-setting interactions in the current study.

Clinicians interviewed within this study also identified difficulty in engaging those clients with communication and cognitive impairments in the goal-setting process. Even those clinicians trained to work with clients presenting with these impairments expressed these thoughts. These clinicians were able to suggest strategies such as engaging family members and using pictures, but these strategies did not appear to be used in a coordinated team approach. These strategies have been suggested in previous studies but do not appear to be common in clinical practice (Leach et al., 2010). Given the high proportion of clients in this study suffering communication or cognitive impairment this may have impacted on the clinician’s ability to engage the client’s in the goal-setting process.
Some clients were viewed by clinicians as having personality traits such as poor motivation or apathy and clinicians experienced difficulty in engaging these clients in goal-setting sessions. Perceptions within this focus group aligned with the previous work undertaken by Maclean and Pound (2002) in that these traits were seen as ‘personality traits’ that could not be changed. The role that clinicians could have in enhancing a client’s motivation received little acknowledgement during discussions. These client related factors have been stated by clinicians as barriers to involving clients in goal-setting processes in the literature (Plant et al., 2016). Whilst involvement of family members has been suggested as a strategy to overcome these barriers, studies investigating family involvement and experience of participating in goal-setting in rehabilitation is minimal (Lloyd et al., 2018).

Clinicians expressed a strong desire for goals set to be ‘achievable’ and ‘realistic’ as these concepts are prominent within the SMART model of goal-setting in rehabilitation (Bovend’Erdt et al., 2009). This difficulty in developing ‘realistic’ goals that were achievable and avoided setting clients up to fail was important to clinicians and seemed to reflect their knowledge and skill in setting goals. This is consistent with previous literature which has suggested clinicians can feel uncertain regarding recovery and conservative in setting short term, physical functioning goals that are likely to be achievable (Levack et al., 2011; Rosewilliam et al., 2011).

4.1.3.3 The Agenda

Clinicians expressed barriers to implementing a client-centred approach to goal-setting that related to the organisational pressures of an inpatient rehabilitation unit. The primary organisational barriers related to implementing a client-centred approach to goal-setting were time, length of stay, clinician turnover and shift work. These concerns again align with previous research where clinicians in inpatient rehabilitation
environments have expressed difficulty in finding time to incorporate the client in goal-setting discussions and have consequently prioritised other workload activities over goal-setting practices (Plant et al., 2016). In the current study time was expressed as a barrier to engaging clients in goal-setting and other workload practices that took priority primarily focussed on discharge planning. This particularly related to the mixed rehabilitation context in the unit where both short and long-term rehabilitation clients were admitted to the ward. The discharge planning practices for those clients with shorter rehabilitation lengths of stay were expressed as being more important and did not include the need for ongoing identification of rehabilitation goals. These variations in lengths of stay within this rehabilitation unit are likely reflective of the varied case mix of non-specialist Queensland inpatient rehabilitation services (Australian Health Outcomes Collaboration, 2017). This variation in case mix presents another level of complexity in implementing rehabilitation goal-setting practices that are structured and consistent but that can be applied to all rehabilitation clients.

Goal-setting practices were valued for clients who were likely to have a longer length of stay, predominantly those with complex presentations and neurological conditions but not those with shorter, less complex needs. While goal-setting is acknowledged as valuable in many aspects of life such as organisational, student and sporting populations (Locke & Latham, 2002), the majority of the goal-setting literature in rehabilitation has been undertaken within populations with more complex presentations such as ABI, chronic disease and stroke (Levack et al., 2015). Therefore, clinicians may inadvertently see goal-setting as applying to specific groups not all clients.

The skill level of clinicians was identified by clinicians as important for successful goal-setting interactions, and as discussed in the previous section (3.3.2.3)
may not be optimal. Clinician turnover in rehabilitation settings was identified in the focus group as a barrier to maintaining high level knowledge and skill in goal-setting for rehabilitation. It has previously been acknowledged that many rehabilitation settings experience difficulties in facilitating ongoing training for, and maintaining skill mix in goal-setting (Plant et al., 2016; Rosewilliam et al., 2011). A lack of orientation and training to support clinicians to develop skills that are required to manage goal-setting conversations was discussed by team members participating in this study.

Although clinicians state a high priority for goal-setting it is often overtaken by activities that clinicians feel meet their organisational and job demands first. Clinician’s skills at engaging clients in rehabilitation goal-setting coupled with the organisational demands seen in the literature may be contributing to clinicians prioritising their goals over client goals (Levack et al., 2011).

4.1.3.4 Team

The importance of the team within rehabilitation is undeniable, and teamwork has been identified as a mechanism by which goal-setting can improve performance in the conceptual model used to underpin this study (1.3.2.4). In this study positive team culture and trust was identified as being required in moving towards a more interdisciplinary model of practice. Clinicians in this study felt they needed to be confident in the skills of their fellow team members in order to share the responsibility for goal-setting. A similar sentiment was particularly evident in the paper published by Schut and Stam (1994) who highlighted this statement defining a team as “a group of people working together to achieve common objectives and willing to forgo individual autonomy to the extent necessary to achieve those objectives”. Clinician’s skills and leadership abilities have been identified as facilitators of successful goal-setting interactions (Plant et al., 2016). Having an effective chair for goal-setting meetings has
been identified as important and clinicians have been seen to be more satisfied with goal-setting meetings when they are more involved in the discussions (Nair & Wade, 2003). Whilst the rehabilitation team were generally positive about implementing goal-setting changes reflective of working in an interdisciplinary team it was evident that trust would play a role in disciplines sharing responsibility for these goal-setting activities within this context.

4.2 Synthesis of study findings

The first proposition of this study was based on the existing literature that indicates goals set for rehabilitation are often poorly defined, lack meaningful context and do not directly drive the selection of rehabilitation activities. While the importance of goals and goal-setting for rehabilitation was acknowledged across each of the three studies within this case study, the findings revealed that all three components of this proposition were fully supported. The goals documented in the medical records of the rehabilitation clients were found to be poorly defined and demonstrated minimal specificity. Goals were considered specific if they included a statement about where the goal was to occur, how much or how often the goal needed to occur, how well it needed to be done and indicated a time frame for completion. Previous research detailing the specificity of goal-setting practices in rehabilitation using this criterion is limited and in this study, it was evident that there was a lack of specificity within the goals set. Based on the focus group discussions this may have been due to the lack of clinician knowledge and skill in goal-setting beyond the initial goal negotiation stage. This lack of specificity may relate to comments made by three participants who identified they had difficulty in breaking longer-term goals into shorter term goals and actions. Additionally, the lack of specificity may also be a strategy employed by clinicians to ensure the goals are vague and flexible enough to enable some level of goal
achievement when clinicians are unsure of outcome expectations. Levack and colleagues (2011) found that clinicians needed to feel confident that their goals were achievable if they were to announce them in a public forum such as a team meeting. In this current case, the team case conference was a key forum for discussion of the identified goals, therefore this may have influenced how goals were set and communicated.

One aspect of goals proposed to enhance specificity and motivation is the inclusion of a meaningful context in which goals are to be achieved. In the audit of goals written in medical charts (study 1) it was found that few goals (20.73%) included either an environmental or social context in the wording. In the focus group clinicians identified organisational agendas that drove what they chose to work on in the inpatient environment and that the focus was on being able to do the core tasks (activities) required to ‘get them out of hospital’ rather than participation in real world events (Lloyd et al., 2018). This has also been identified by clients in the literature and in study 2 of this program of research. This is elaborated on further in addressing the second proposition.

A client-centred approach to goal-setting should direct the selection of rehabilitation actions and plans. The inclusion of action planning, barrier identification and coping planning have been identified as facilitators of client-centred goal-setting practice within the literature (Plant et al., 2016). Setting specific goals allows clinicians and clients to select actions relevant to goals and consider specific barriers that may prevent clients from completing these actions and create plans to overcome these. There was limited evidence found in study 1 or 3 of these processes being included in the goal-setting practice of this rehabilitation unit. Discussions in the focus group centred around the initial goal identification phase but little beyond this stage. Action planning,
feedback and review are key components identified in the literature and the conceptual model that can facilitate successful goal-setting and impact rehabilitation outcomes and secondary therapeutic benefits (Levack et al., 2006). Without appropriate action plans and feedback goals are likely to remain vague and not serve their full purpose in a rehabilitation setting. Together these findings suggest that true goal directed rehabilitation is not occurring within this unit, and as this proposition was upheld there is a need for improvement in goal-setting practice to move beyond initial goal identification to specific, meaningful goals that drive their rehabilitation practices.

The second proposition investigated within this program of research sought to determine the approach to goal-setting practice used within this inpatient rehabilitation unit, specifically if the therapist-led approach previously identified in the rehabilitation literature was evident. When combining the data as reported by clinicians and clients and supported by observations in medical record auditing there is evidence to support this proposition. Audit data from study 1 identified that goal-setting was occurring predominantly between individual clinicians and their clients, which was confirmed in study 3 where clinicians identified a silo approach to rehabilitation and a lack of common goal focus between the client and the team. Audits identified that clients were often present with the individual disciplines when setting goals however, clients in study 2 voiced that whilst the goals set were client-centred the process was often led by the therapist. This approach to goal-setting is the most commonly reported approach by clinicians and clients in the rehabilitation goal-setting literature (Leach et al., 2010; Rose et al., 2017; Rosewilliam et al., 2011).

Therapists in the focus group identified that there was a need for a therapist led approach in order to ensure ‘realistic’ goals were set. This ‘realistic’ goal-setting was observed in study 1 where clinicians predominantly set activity related short term goals
related to the skills required for discharge from inpatient rehabilitation. These goals lacked specificity, few goal statements included timeframes, and there was minimal inclusion of psychosocial or participation level goals. As stated this lack of specificity in therapist-led goals may be a result of clinicians being unsure of outcome expectations thus, controlling the process to ensure goals are achievable. The focus on short term physical functioning goals was recognised by Levack and colleagues (2011) and reflected the clinician’s; *overriding sense of responsibility to a primary objective: to return the patient to the community as quickly and as safely as possible*” (p.210).

The concept of ‘realistic’ goal-setting which predominated this rehabilitation team’s perceptions of goal-setting arises from the focus on writing SMART goals, which contrasts with the findings by Lloyd and colleagues (2018). Lloyd and colleagues (2018) found clients expressed the value of ambitious goals as they can be motivating throughout rehabilitation even if they are unachievable (Lloyd et al., 2018). This stark contrast in client’s perceptions of goal-setting and the perceptions of clinicians highlights a difference in the purposes of goal-setting between the clinicians and clients. As seen in the conceptual framework goal-setting may have an effect on outcome and autonomy through different mechanisms. Clients may see the value in ambitious goal-setting in order to maintain motivation throughout rehabilitation however clinician’s may see the value of goal-setting in the ability to evaluate outcome and determine rehabilitation activities. Rehabilitation outcomes are often framed in terms of goal achievement and may influence clinicians to focus on setting ‘realistic’ goals when clients are wanting to pursue ambitious goals.

Some studies reviewing client perspectives on goal-setting identified that clients felt a therapist-led approach was appropriate as the clinician held the expertise of the situation (Lloyd et al., 2018). When exposed however to a shared decision-making
approach other studies have shown that clients prefer being more actively involved in
the process. Whilst clients in study 2 identified the role of the health professional’s
expertise and clinicians in study 3 identified they needed to facilitate the goal-setting to
ensure goals are realistic, both clinicians and clients identified clients were
underprepared for such an interaction. In the literature, clients identified that they are
ill-prepared to participate in goal-setting and felt that having more information would
allow them to be a partner in the process of goal-setting in rehabilitation (Lloyd et al.,
2018; Rose et al., 2017). One suggested strategy to facilitate client-centred goal-setting
practices involves education of clients and family members to best prepare them for the
goal-setting practices, and the inclusion of formalised education materials (Plant et al.,
2016). The role of a keyworker to liaise as a contact to guide the clients and families
through the rehabilitation process has also been identified as a facilitator of goal-setting
practices (Plant et al., 2016). As documented in study 1 and confirmed in study 3, this
role was not present in the current service with individual disciplines undertaking their
own goal-setting and communicating the goals to the wider team at case conference.

Further facilitators of client-centred goal-setting practices in the literature
included clinicians listening and negotiation skills (D'Cruz et al., 2016; Lannin, D'Cruz,
Turner-Stokes, Roberts, & Unsworth, 2014). Clinicians in study 3 identified the high
level of skill required for involving the client in goal-setting and stated that this was a
barrier to clinicians undertaking successful goal-setting interactions which included the
client. Formalised goal-setting measures such as the COPM were identified as a
facilitator in several systematic reviews however the reason for this recommendation
appears to be related to providing a structured process that involves the client’s
preferences rather than the measurement of goal achievement or progress itself (Plant et
al., 2016; Rose et al., 2017). There was no formal goal-setting measure or tool identified
in study 1 to facilitate goal-setting in this rehabilitation unit, nor was this discussed by clinicians in the focus groups. These findings are consistent with previously published literature showing that the use of formalised measures in clinical practice is minimal (Holliday et al., 2005; Prescott et al., 2015).

Client-centred goal-setting has been conceptualised as broader than the ‘client’ themselves, in some populations where cognitive or communication abilities may preclude their participation, and family members may be the informants (D'Cruz et al., 2016; Lannin et al., 2014). There was limited evidence of the involvement of family members in goal-setting in study 1. A client in study 2 reported that timing on the ward was a barrier to her having family more involved in the goal-setting. In study 3 family member involvement was suggested as a strategy to improve goal-setting with clients who had communication and cognitive impairments however clinicians did not consistently do this in clinical practice and relied on the family member to initiate the involvement. The inclusion of family members in goal-setting however has been shown to be controversial. In the literature clinicians appear divided about involvement of family members in goal-setting (Playford, 2009). Some suggest family involvement can facilitate the client-centred approach but others have also raised concern regarding family members imposing their agenda when it differed from that of the client (Rosewilliam et al., 2011).

The final proposition for this qualitative case study sought to determine if the organisation context affected the implementation of goal-setting activities within the rehabilitation unit. This proposition was also fully upheld. Discussions during the focus group did reveal that time pressures and client length of stay were barriers identified to involving clients in the goal-setting process. This has been identified by both clinicians and by client’s in previous literature describing the busyness of the rehabilitation ward
Rehabilitation goal-setting: a case study

(Lloyd et al., 2018) and may reflect clinicians and clients understanding of the benefits and value of client-centred goal-setting in inpatient rehabilitation teams. The focus group discussions also highlighted that the environment and social context of the ward was a barrier to interdisciplinary goal-setting and placing the client at the centre of this process. Pre-existing processes within the team meant there was limited capacity to conduct a team-based goal-setting process that included the client. Additionally, in conducting case conference there was no opportunity to include the client or the broader team namely, ward nursing staff in discussions. This resulted in little communication with the client regarding goal progress and treatment planning, and little communication with the nursing staff working on the ward. Within the literature strategies to promote communication with the client included using stock or pre-prepared goal phrases and questions, client held folders, action plans and copies of the goals (Plant et al., 2016). This lack of communication of planned treatment goals and actions identified in case conference and activities that were undertaken on the ward was problematic in coordinating the approach of the team.

Clinicians felt that goal-setting with the client and the team had the potential to improve their team working practice in rehabilitation but lacked the knowledge, skill and structured process to operationalise an interdisciplinary model of goal-setting in their rehabilitation setting.

4.3 Clinical implications

Despite the growing body of literature over the past 20 years detailing mechanisms and constructs that facilitate client-centred goal-setting, the translation of these recommendations into practice seems to have not occurred. Clinicians in rehabilitation settings need to improve their knowledge about goal-setting practices
including both how to set goals and the important components required in a goal-setting process. Clinicians would also benefit from an understanding of the mechanisms supporting why goal-setting is believed to affect client outcome in rehabilitation in order to target their use of this intervention appropriately. In line with this, clinicians are encouraged to seek to understand the client perspective related to aspirational and motivating goals and reconsider the emphasis on achievable and realistic components of goal-setting. Clinicians would also benefit from development of higher level communication and listening skills, along with motivational interviewing in order to manage complex goal negotiation discussions. Education of clients and families would also be of benefit to prepare them for participation as a rehabilitation team member in goal-setting interactions. Changes to team processes may need to occur to ensure that interdisciplinary rehabilitation constructs such as including the client, regular communication and common goal focus can exist to support improved rehabilitation outcomes.

4.4 Study Limitations

This qualitative case study provided the opportunity to comprehensively explore goal-setting practices within a single unit using a conceptual theoretical model however, there were several limitations that should be acknowledged. The first limitation related to sample size in terms of the client data set investigated in studies 1 and 2, and the number of clinicians included in study 3. The client sample size reflected approximately 11% of the yearly admissions to this rehabilitation service, and while clinicians indicated that the period of the study was representative it may be that a larger sample size may have changed the results obtained. Recruitment and data collection was undertaken over three months including a holiday period and it cannot be determined if this had an effect on the outcome. This program of research was developed as the first
stage of an action research cycle within this site and therefore a participatory framework was chosen to review the current practice to embed a facilitation model for future research. This facilitation framework may be seen as a second limitation despite training of clinicians to collect data for study 1 and 2, and the inclusion of reliability testing, there may have been some inconsistencies in the auditing of medical records and potential for bias in the interviewing of clients. Finally, only one focus group was run within the team due to time limitations and feasibility. Therefore, it cannot be determined if the views of the broader clinical group are being represented.

4.5 Further research

Future research into the effectiveness of goal-setting interventions needs to incorporate a strong theoretical basis in order to contribute to our knowledge about the mechanisms of goal-setting in a rehabilitation context and to appropriately measure the effects of goal-setting interventions. Future goal-setting research studies would benefit from being designed to address both the process and structure of goal-setting as well as client involvement in the process.

There is a strong theme in the literature and within this research study relating to clients who have poor motivation or passive personality traits and their lack of engagement in rehabilitation. Using the theoretical motivational literature there may be opportunities to further investigate mechanisms by which clinicians can influence client’s motivation and engagement in rehabilitation.

Having a solid understanding of the current practice based on findings from the literature will allow for development of theoretically informed, evidence based intervention strategies. Understanding local barriers and facilitators will allow these interventions to be tailored to address these barriers ideally ensuring successful
implementation of interventions to improve goal-setting practices. These strategies need to be considered in the context of translational research and may benefit from the inclusion of an implementation framework to introduce change to rehabilitation settings.

4.6 Summary

This study represents a theoretically based, holistic review of goal-setting practices in one inpatient rehabilitation unit. The key findings from this review of goal-setting practices support the existing goal-setting literature. Specifically, goal-setting is often therapist led with minimal involvement of the client or family in the inpatient setting. Writing of rehabilitation goals was characterised by a lack of specificity and lack of inclusion of meaningful contexts. Goals were found to often focus on physical functioning with little involvement of psychosocial and participation considerations beyond safety of the home environment. Furthermore, the actions required to direct goal achievement were not clearly identifiable in most cases. Consistent with the existing literature on goal-setting in rehabilitation there is a lack of continuation in goal planning beyond initial goal identification.

There were positive attitudes within the team about implementing goal-setting practice change, however barriers to involving clients in rehabilitation goal-setting were identified at the level of the client, the clinician, the team and organisation. The majority of these barriers appear to be modifiable and the team were able to identify strategies they thought would improve their interdisciplinary teamwork and engagement with clients when goal-setting in rehabilitation.

Overall it was evident that true client-centred goal-setting practice as described theoretically remained elusive in this inpatient rehabilitation environment. Whilst client's identified their goals as being client-centred they expressed a lack of participation in the process of goal-setting. There is a need to utilise this data, and the
enthusiasm and engagement of the rehabilitation team to design and implement interventions to achieve their aim of interdisciplinary client-centred goal-setting practices in the inpatient rehabilitation environment
Appendices

Appendix 1

Confidential

**Goal Setting Process & Attributes Audit Tool**

The chart audit below is designed to collect information about the current process and structure of goal setting within your rehabilitation service. The chart audit will take on average 20 mins per chart. The audit will apply to the REHABILITATION ADMISSION documentation only.

Thank you!

1. Please select your site code
   - LHI

Please enter your rater ID

2. What is the patient’s UR number

3. What was the patient admission to REHABILITATION date?

4. Please outline which weeks of the patient’s rehabilitation episode this audit is representing.
   - Week 1
   - Week 2
   - Week 3
   - Week 4
   - A 2 week period beyond the first 4 weeks was selected

5. If a time period was selected outside the planned time period for your site please detail reason.
   (If less than a 2 week period was used please include the number of days the client was considered to be undertaking rehabilitation.)

6. Are you answering these questions from an inpatient rehabilitation facility?
   - Yes
   - No
   (If no skip to question 3b.)

11/12/2018 5:26pm
projectredcap.org
Rehabilitation goal-setting: a case study

| 6a. Does your rehabilitation inpatient unit currently collect FIM data. If Yes, please enter the FIM data below. |  
| --- | --- |
| Eating |  
| Grooming |  
| Bathing |  
| Dressing Upper Body |  
| Dressing lower body |  
| Toiletting |  
| Bladder Management |  
| Bowel Management |  
| Transfer Bed/Chair/wheelchair |  
| Transfer Toilet |  
| Transfer bath/shower |  
| Locomotion |  
| Stairs |  
| Comprehension |  
| Expression |  
| Social Interaction |  
| Problem Solving |  
| Memory |  

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

6b. FIM total

6c. Please enter any global functional outcome measure that is completed on admission for the patient and the score for that measure.

(Enter both name of the measure and score)

7. Date of birth

7a. Age
### Confidential

8. What is the client's presenting condition?

- Stroke
- Brain Dysfunction
- Neurological Conditions
- Spinal Cord Dysfunction
- Amputation of Limb
- Arthritis
- Pain Syndromes
- Fractures
- Post Orthopaedic Surgery
- Cardiac Disorders
- Pulmonary Disorders
- Congenital Deformities
- Other Disabling Impairments
- Major Multiple trauma
- Developmental Disability
- Reconditioning/Restorative

(Provide the primary presenting condition.)

8a. Please Detail

9. Does the client have any difficulties with communication or cognition?

- Hearing deficit
- Visual Deficit
- Cognitive Impairment
- Expressive Communication
- Receptive Communication
- No deficit
- Unclear

(Include all that are relevant. Please note if clients have glasses or hearing aids that reverse the impairment they would not be considered as having difficulty. If aids are not present this may impact their communication so select hearing or visual deficit as relevant.)
### Rehabilitation goal-setting: a case study

10. What was the patient's previous level of function prior to this rehabilitation admission?

<table>
<thead>
<tr>
<th>Function</th>
<th>Independent</th>
<th>Supervised</th>
<th>Assisted</th>
<th>Fully Dependent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self Cares</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. Has goal setting been undertaken as per the medical record documentation with this client?

- Yes
- No

11a. Why was goal setting not undertaken with this client?

12. Was the client present and involved in the goal setting process?

- Yes with the team
- Yes with individual disciplines/Case coordinator
- No
- Unsure

(Case Coordinator can be considered one member on behalf of the team, key worker, link worker etc)

13. Goals are set by

- The Team
- Individual Disciplines
- One member on behalf of the team with the patient

13a. Is the team member setting goals on behalf of the team always from a specific discipline? If yes please state which discipline sets goals with the patient on behalf of the team.

13b. Please outline the goals that were documented on behalf of the team.

13c. Please outline the goals that were documented by the team.

13d. Which disciplines have undertaken the goal setting?

- Occupational Therapy
- Physiotherapy
- Speech Pathology
- Social Work
- Medical
- Nursing
- Psychology
- Recreational Officer
- Neuropsychology
- Dietician
- Other

13e. Which other disciplines have set goals? Please detail

13f. Please state the Physiotherapy goals as per the medical record.

11/12/2018 5:26pm
13a. Please state the Occupational Therapy goals as per the medical record.

13b. Please state the Medical goals as per the medical record.

13c. Please state the Psychology goals as per the medical record.

13d. Please state the Neuropsychology goals as per the medical record.

13e. Please state the Recreation Officer goals as per the medical record.

13f. Please state the Nursing goals as per the medical record.

13g. Please state the Speech Pathology Goals as per the medical record.

13h. Please state the Social Work Goals as per the medical record.

13i. Please state the Dietician Goals as per the medical record.

13j. Please state other goals and discipline as per the medical record.
14. For the goals listed below.

Please check the box if the goal attributes below are present in more than 50% of the goals for the mode or discipline selected.

| Goals set by one team member on behalf of the team (goalsbehalf) |
| Goals set by the team (teamgoals) |
| Goals set by other disciplines (other_goals) |
| Goals set by physiotherapists (physiogoals) |
| Goals set by Occupational Therapists (otgoals) |
| Goals set by neuropsychology (neuropsychgoals) |
| Goals set by Speech Pathology (sp_goals) |
| Goals set by Social Workers (sw_goals) |
| Goals set by Nursing Staff (nursing_goals) |
| Goals set by Medical Staff (medical_goals) |
| Goals set by Psychologists (psychology_goals) |
| Goals set by Recreational Officers (regoals) |
| Goals set by Dietician (dtgoals) |
**Confidential**

<table>
<thead>
<tr>
<th>The Team</th>
<th>One member on behalf of the team</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14a. How has the achievement rating been calculated? i.e. GAS, VAS, performance, satisfaction etc. (If multiple disciplines use different achievement ratings- please detail)

11/12/2018 5:26pm  projectredcap.org
### 15. For the Goals listed below - where did you locate this documentation.

<table>
<thead>
<tr>
<th>Goals set by one team member on behalf of the team</th>
</tr>
</thead>
<tbody>
<tr>
<td>[goalsbehalf]</td>
</tr>
<tr>
<td>Goals set by the team</td>
</tr>
<tr>
<td>[teamgoals]</td>
</tr>
<tr>
<td>Goals set by other disciplines</td>
</tr>
<tr>
<td>[other_goals]</td>
</tr>
<tr>
<td>Goals set by physiotherapists</td>
</tr>
<tr>
<td>[physiogoals]</td>
</tr>
<tr>
<td>Goals set by Occupational Therapists</td>
</tr>
<tr>
<td>[otgoals_2]</td>
</tr>
<tr>
<td>Goals set by neuropsychology</td>
</tr>
<tr>
<td>[neuropsychgoals]</td>
</tr>
<tr>
<td>Goals set by Speech Pathology</td>
</tr>
<tr>
<td>[sp_goals]</td>
</tr>
<tr>
<td>Goals set by Social Workers</td>
</tr>
<tr>
<td>[sw_goals]</td>
</tr>
<tr>
<td>Goals set by Nursing Staff</td>
</tr>
<tr>
<td>[nursing_goals]</td>
</tr>
<tr>
<td>Goals set by Medical Staff</td>
</tr>
<tr>
<td>[medical_goals]</td>
</tr>
<tr>
<td>Goals set by Psychologists</td>
</tr>
<tr>
<td>[psychology_goals]</td>
</tr>
<tr>
<td>Goals set by Recreational Officers</td>
</tr>
<tr>
<td>[recojours]</td>
</tr>
</tbody>
</table>

| Goals set by Dietician                         |
| [ditgoals]                                     |
Rehabilitation goal-setting: a case study

Confidential

<table>
<thead>
<tr>
<th>The Team</th>
<th>One member on behalf of the team</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OT</td>
</tr>
<tr>
<td>Progress Notes</td>
<td>☐</td>
</tr>
<tr>
<td>Case Conference</td>
<td>☐</td>
</tr>
<tr>
<td>Bedside Chart</td>
<td>☐</td>
</tr>
<tr>
<td>Patient held record/card</td>
<td>☐</td>
</tr>
<tr>
<td>Specific Form</td>
<td>☐</td>
</tr>
</tbody>
</table>

15a. Please detail what type of form and who documents on this?

________________________________________________________________________

16. Are the goals consistently documented between the team/one member on behalf of the team or individual disciplines

☐ Yes  ☐ No  ☐ Goals were similar in theme but worded or detailed differently.

17. In your observations/opinion do you feel the goals are achievable?

☐ Yes  ☐ No  ☐ Partially  ☐ Unsure

17a. Please comment

________________________________________________________________________

17b. How have you made this decision?

☐ Chart entries  ☐ Team discussions observed  ☐ Informal conversations  ☐ Conversation with patient  ☐ Clinical Judgement  ☐ Other

17c. Please detail

________________________________________________________________________

18. In your observations/opinion do you feel this goal is relevant to the patient?

☐ Yes  ☐ No  ☐ Partially  ☐ Unsure

18a. Please comment

________________________________________________________________________

18b. How have you made this decision?

☐ Chart entries  ☐ Team discussions observed  ☐ Informal conversations  ☐ Conversations with patient  ☐ Clinical Judgement  ☐ Other
## Commence Client Interview or save and return later if you are not continuing with the interview now.

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have you set goals with your rehabilitation team?</td>
<td>Yes, No, Unsure</td>
</tr>
<tr>
<td>(if Yes skip to question 3, If No continue to question 2a.)</td>
<td></td>
</tr>
<tr>
<td>1a. Do you have a goal you would like to work towards?</td>
<td>Yes, No</td>
</tr>
<tr>
<td>(if Yes Go to Question 3. If no go to question 2b.)</td>
<td></td>
</tr>
<tr>
<td>1b. Is there a reason you do not want to work on anything in rehabilitation?</td>
<td>(Following this question skip to Question 5)</td>
</tr>
<tr>
<td>2. Please write down your first goal?</td>
<td></td>
</tr>
<tr>
<td>2a. How confident do you feel in achieving this goal?</td>
<td>0 - 10</td>
</tr>
<tr>
<td>3. Do you have a second goal you are working towards?</td>
<td>(if there are no other goals skip and move forward to question 4)</td>
</tr>
<tr>
<td>4. Do you have a third goal you are working towards?</td>
<td></td>
</tr>
<tr>
<td>4a. How confident do you feel in achieving this goal?</td>
<td>0 - 10</td>
</tr>
</tbody>
</table>
## 5. For these goals listed in your Medical Record Documentation please rate the following.

[goalsbehalf]

[teamgoals]

[other_goals]

[physiogoals]

[otgoals_2]

[neuropsychgoals]

[sp_goals]

[sw_goals]

[nursing_goals]

[medical_goals]

[psychology_goals]

[recgoals]

[dtgoals]

<table>
<thead>
<tr>
<th>The goals are what I want to work on</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The goals are what my friend/relative wants me to work on</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The goals are what my therapist wants me to work on</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Significant people in my life (i.e. family/friends) were involved in planning the goals as much as I wanted them to be</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Rehabilitation goal-setting: a case study

Confidential

6. Overall, can you answer the following questions on how you feel about the goal setting process that has occurred within your rehabilitation at this facility?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The therapist encouraged me to participate in setting the goals</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I was an active participant in the goal setting session</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>My views and opinions about the goals were listened to</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I felt like a partner in the goal setting process</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I made the final decision about which goals were set</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Rehabilitation goal-setting: a case study

7. Please write down the first goal as per the documentation in the chart.

<table>
<thead>
<tr>
<th>The goal is meaningful and important to me as it relates to who I am and my future</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The goal is relevant to my everyday life as it relates to what I want to do at home, work or in the community</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The goal is what I am motivated to work on</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The goal is my own</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7a. How confident do you feel in achieving this goal?

〇 0 〇 1 〇 2 〇 3 〇 4 〇 5 〇 6 〇 7 〇 8 〇 9 〇 10
Rehabilitation goal-setting: a case study

Confidential

| 8. Please write down the second goal as per the documentation in the chart. |
|----------------------------------|----------------|-------------|-------------|-------------|----------------|
| The goal is meaningful and      | Strongly Disagree | Disagree    | Unsure      | Agree       | Strongly Agree |
| important to me as it relates   | ○              | ○           | ○           | ○           | ○              |
| to who I am and my future      |                |             |             |             |                |
| The goal is relevant to my     | ○              | ○           | ○           | ○           | ○              |
| everyday life as it relates to |                |             |             |             |                |
| what I want to do at home, work |                |             |             |             |                |
| or in the community            |                |             |             |             |                |
| The goal is what I am motivated | ○              | ○           | ○           | ○           | ○              |
| to work on                      |                |             |             |             |                |
| The goal is my own goal        | ○              | ○           | ○           | ○           | ○              |

11/12/2018 5:47pm
projectredcap.org

124
8a. How confident do you feel in achieving this goal?

0 1 2 3 4 5 6 7 8 9 10
9. Please write down the third goal as per the documentation in the chart.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The goal is meaningful and important to me as it relates to who I am and my future</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The goal is relevant to my everyday life as it relates to what I want to do at home, work or in the community</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The goal is what I am motivated to work on</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The goal is my own goal</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
9a. How confident do you feel in achieving this goal?

0  1  2  3  4  5  6  7  8  9  10
10. Please write down the fourth goal as per the documentation in the chart.

<table>
<thead>
<tr>
<th>Goal Description</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The goal is meaningful and important to me as it relates to who I am and my future</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The goal is relevant to my everyday life as it relates to what I want to do at home, work or in the community</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The goal is what I am motivated to work on</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The goal is my own goal</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
10a. How confident do you feel in achieving this goal?

☐ 0  ☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  ☐ 8  ☐ 9  ☐ 10
**Rehabilitation goal-setting: a case study**

**Confidential**

| [goalsbehalf] |  |
| [teamgoals] |  |
| [other_goals] |  |
| [physiogoals] |  |
| [otgoals_2] |  |
| [neuropsychgoals] |  |
| [sp_goals] |  |
| [sw_goals] |  |
| [nursing_goals] |  |
| [medical_goals] |  |
| [psychology_goals] |  |
| [recgoals] |  |
| [dtgoals] |  |

11. Please write down the fifth goal as per the documentation in the chart.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The goal is meaningful and important to me as it relates to who I am and my future</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The goal is relevant to my everyday life as it relates to what I want to do at home, work or in the community</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The goal is what I am motivated to work on</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The goal is my own goal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
11a. How confident do you feel in achieving this goal?

☐ 0  ☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  ☐ 8  ☐ 9  ☐ 10
Rehabilitation goal-setting: a case study

20. Please write down the sixth goal as per the documentation in the chart.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The goal is meaningful and important to me as it relates to who I am and my future</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
<tr>
<td>The goal is relevant to my everyday life as it relates to what I want to do at home, work or in the community</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
<tr>
<td>The goal is what I am motivated to work on</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
<tr>
<td>The goal is my own goal</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
</tbody>
</table>
20a. How confident do you feel in achieving this goal?

☐ 0  ☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  ☐ 8  ☐ 9  ☐ 10
<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>21. Did you receive information about the team approach to goal setting?</td>
<td>Yes, No, Unsure</td>
</tr>
<tr>
<td>22. Did you receive a copy of your goals?</td>
<td>Yes, No, Unsure</td>
</tr>
<tr>
<td>23. Do you have any other comments you would like to make regarding your goals or the goal setting process?</td>
<td></td>
</tr>
<tr>
<td>24. Please upload the audio file here</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 3

Focus Group Interview Guide

Can you tell me what client-centred goal-setting means to you and your rehabilitation service?

Can you tell me about the goal-setting process that currently occurs here in your rehabilitation service?

Can you tell me the pros/cons of the goal-setting process within your service?

- Prompt- Can you give me an example of a time when the goal-setting process worked well?

- Prompt – Can you give me an example of a time when the goal-setting process did not work so well?

If you were undertaking a service improvement, what would you retain within your goal-setting process? What would you improve in your goal-setting process?
Rehabilitation goal-setting: a case study

Appendix 4

11 October 2017

Ms Amanda Baker
2 Kyeeama Street
BUDDINA QLD 4575

Dear Ms Baker,

HREC/17/QPCH/341: An exploration of the use of patient centred principals in goal setting practices in rehabilitation services across Queensland

I am pleased to advise that The Prince Charles Hospital Human Research Ethics Committee (TPCH HREC) reviewed the amendments submitted and upon recommendation, the Chair has granted approval for the following:

- Protocol version 3 dated 5 October 2017
- Protocol version 4 dated 10 October 2017
- Additional sites – Gold Coast University Hospital and Royal Brisbane and Women’s Hospital

This information will be tabled at the HREC meeting on 26 October 2017 for noting.

A copy of this approval must be forwarded to each of the Principal Investigators at each site who should provide a copy to their own Hospital & Health Service Research Governance Officer/s or Delegated Personnel, along with updated Site Specific documentation, for CEO or Delegate authorisation for each site.

List of approved Sites:

<table>
<thead>
<tr>
<th>No.</th>
<th>Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Logan Hospital</td>
</tr>
<tr>
<td>2</td>
<td>Sunshine Coast University Hospital</td>
</tr>
<tr>
<td>3</td>
<td>Gold Coast University Hospital</td>
</tr>
<tr>
<td>4</td>
<td>Royal Brisbane and Women’s Hospital</td>
</tr>
</tbody>
</table>

This HREC is constituted and operates in accordance with the National Health and Medical Research Council’s (NHMRC) National Statement on Ethical Conduct in Human Research (2007), NHMRC and Universities Australia Australian Code for the Responsible Conduct of Research (2007) and the CPMP/ICH Note for Guidance on Good Clinical Practice.

Please be advised that in the instance of an investigator being a member of the HREC, they are absent from the decision making process relating to that study.

On behalf of the Human Research Ethics Committee, I would like to wish you every success with your research endeavour.
References


Rehabilitation goal-setting: a case study


Lloyd, A., Bannigan, K., Sugavanam, T., & Freeman, J. (2018). Experiences of stroke survivors, their families and unpaid carers in goal setting within stroke rehabilitation: a


Rehabilitation goal-setting: a case study


Rehabilitation goal-setting: a case study


