Goal Attainment and Outcomes of Physiotherapy Participants Funded by an Individualised Government Package’

katherine Melissa Alava Bravo ( katherine.alavabravo@gmail.com)
Macquarie University  https://orcid.org/0000-0002-8363-2729

Laura McCredie
Concentric Rehab

Katharine Scrivener
Macquarie University

Research

Keywords: Goals, Goal Attainment, Goal Setting, National Disability Insurance Scheme, NDIS, Physiotherapy

Posted Date: December 17th, 2020

DOI: https://doi.org/10.21203/rs.3.rs-129134/v1

License: ©  This work is licensed under a Creative Commons Attribution 4.0 International License. Read Full License
Goal Attainment and Outcomes of Physiotherapy Participants
Funded by an Individualised Government Package

Katherine M Alava Bravo, Laura McCredie and Katharine Scrivener

a Facility of Medicine, Health and Human Sciences, Macquarie University, Sydney Australia,
b Concentric Rehabilitation Centre, Sydney Australia

katherine.alavabvero@gmail.com

word count 3769
Abstract

**Purpose:** To determine goal attainment and change in physical outcomes of individuals participating in a community Physiotherapy program funded by a new government funding package, the National Disability Insurance Scheme (NDIS). Additionally, to describe the alignment of NDIS goals with Physiotherapy goals and the impact of the NDIS on access to Physiotherapy.

**Methods:** A consecutive case series was conducted involving 12 participants attending NDIS-funded Physiotherapy at a private clinic in Sydney, Australia. Outcome measures were recorded upon entry to the study and again after 6 months or at discharge, whichever occurred first. The primary outcome was goal attainment measured by the Goal Attainment Scale. Secondary outcomes included the 5-metre walk test, Motor Assessment Scale, World Health Organisation Quality of Life questionnaire and Exercise Self Efficacy Scale.

**Results:** Forty-one percent of goals were fully attained and for 53% performance was equal to baseline, however, this was not reflected in concurrently measured outcomes where small changes occurred. Physiotherapy goals focused on mobility whilst NDIS goals varied. Changes in outcome measures differed between individuals. NDIS funding provided all participants access to more frequent or otherwise inaccessible Physiotherapy.

**Conclusion:** Physiotherapy participants funded by an individualised government package had improved access to Physiotherapy where participants attained individualised goals.

**Key Words**

Funding; Goals; Goal Attainment; Goal Setting; National Disability Insurance Scheme; NDIS; Physiotherapy.
Introduction
Recently, an international shift from traditional, group-disability supports toward individualised funding has occurred (Fleming et al. 2019). In Australia, a government funded individual disability package known as the National Disability Insurance Scheme (NDIS) was progressively implemented from 2016. NDIS aims to address previous disability funding inequality by providing tailored supports to individuals under 65 living with permanent and significant disability (ADoHR 2019). Eligible individuals receive an NDIS plan outlining their goals and required supports (including Physiotherapy), to assist with goal achievement over an established timeframe (NDIA 2019). NDIS implementation has resulted in the establishment of more private sector services. Prior to NDIS introduction, many individuals with permanent and significant disability were unable to access or afford supports including Physiotherapy (ABoS 2016, WHO 2001b).

Both NDIS and Physiotherapy programs should be centred around individualised goals. Goal setting can be complex, with individuals with disability commonly unsure about their role and what is achievable (Sugavanam et al. 2013, Rosewilliam, Roskell and Pandyan 2011). One framework successfully implemented to set goals in a range of populations is the International Classification of Functioning, Disability and Health (ICF) (Dalen et al. 2013). ICF is a biopsychosocial framework to describe function and disability. It acknowledges disability is multifaceted, with an individual's health condition, their environment and personal factors all impacting function (WHO 2001a). ICF may be an appropriate framework for physiotherapists to use when goal setting, rather than a biomedical approach, as it includes psychosocial aspects of disability (Wade and de Jong 2000).

Unfortunately, person-centred goal setting is rarely used due to differing perspectives between individuals and clinicians, systemic restrictions such as limited resources and others making decisions on behalf of individuals with disability (Rosewilliam et al. 2011).

Physiotherapy benefits have been documented, but to our knowledge, no research has been published regarding adults participating in NDIS funded
Physiotherapy (Barker et al. 2017, Allen et al. 2019, Ertekin et al. 2012, Spencer et al. 2018, Baque et al. 2016, Pollock et al. 2007, Dorsch, Ada and Alloggia 2018, Latimer-Cheung et al. 2013). As NDIS has prompted a shift in Australian Physiotherapy services, it is important to understand the outcomes experienced by this unique population to guide continued development of private sector services. This study documents goal attainment, physical outcomes, self-efficacy, quality of life (QoL) and satisfaction of a series of individuals with disability over a six-month period.

The specific research questions were:

- What Physiotherapy goals are set by individuals with NDIS funding and are they achieved as measured by Goal Attainment Scaling?
- What NDIS goals are set by individuals with NDIS funding and do they align with Physiotherapy goals?
- Does participation in NDIS funded Physiotherapy alter physical function of individuals with permeant and significant disability as measured by the Motor Assessment Scale (MAS) and 5-meter walk test?
- Does NDIS funding improve access to private community Physiotherapy for individuals with permeant and significant disability?

**Methods**

A consecutive case series was conducted with individuals attending a private clinic in Sydney Australia between April 2019 and November 2019. Ethics approval was obtained from Macquarie University Human Research Ethics Committee (5201952888188). Written informed consent was obtained from all participants. This study was conducted alongside another larger survey-based study investigating experience of Physiotherapy participants funded by NDIS.

**Participants**

All individuals attending Physiotherapy at a private clinic in Sydney, Australia, who met inclusion criteria were invited to participate, in person or via telephone by a research team member. Individuals were included if they were aged 18 to 65 years
and using NDIS funding to access Physiotherapy (either to partially or fully fund their attendance). Individuals were excluded if unable to provide consent for participation.

**Setting**
The private Physiotherapy clinic included a rehabilitation gym and was co-located in a residential aged care facility. Services offered by the clinic included musculoskeletal, neurological and geriatric Physiotherapy to facility residents and community dwelling individuals.

**Intervention**
As per routine clinical practice, all participants undertook an initial Physiotherapy assessment to identify impairments and individual goals. Individualised programs were then designed and implemented. Programs included task-specific practice, strength, cardiovascular and balance exercises. Physiotherapy was delivered individually and/or via small groups.

**Demographic and Clinical Data Collection**
Demographic data (e.g. age, gender, diagnosis, cognitive status, social support) was obtained from clinic records. Cognitive impairment was determined via doctor’s diagnosis obtained from clinic records. NDIS plan information (funding, management and goals), funding source for Physiotherapy and impact of NDIS funding on access to Physiotherapy were recorded from clinic records. Social support was determined by reviewing participant NDIS plans or clinic records. Number of Physiotherapy sessions attended, time attending the clinic and intervention received over the study period were also recorded from clinic records.

**Outcome Measures**
Primary and secondary outcomes were collected upon study entry (baseline) and at 2-, 4- and 6-month time points with the intention of capturing participant outcomes close to discharge or at 6 months. If discharge occurred prior to 6-months, the most recent outcome measures were used and timing of discharge and subsequent exit from the study was noted.
Primary outcomes were collected during the Physiotherapy appointment. Questionnaires were collected outside participants’ appointments, at a location of their choice, including in the clinic waiting room or at their home. Questionnaires were completed independently unless the participant requested or was identified as requiring support. Need for support was determined by a research team member, based on factors including cognition, physical function (e.g. unable to write responses), English-language, visual or speech limitations. Support was provided by a research team member or a participant’s family member and was recorded. Participant inability to complete questionnaires was recorded. Participants were given one week to complete and return the questionnaires. A follow up telephone call was conducted if the questionnaires had not been returned.

**Primary Outcomes**

*Goal Attainment Scaling (GAS)*

The Goal Attainment Scale (GAS) was used to score the degree to which a selected goal or goals were attained (Turner-Stokes 2009). It is a criterion-referenced assessment that is responsive to minimal clinically significant change (Palisano 1993). Implementation and scoring of GAS followed the practical guidelines outlined by Turner-Stokes (Turner-Stokes 2009). Upon initial assessment, participants rated the relative importance and anticipated difficulty of achieving their goals. Baseline function was then scored as –1, unless function for a goal was as bad as it could be, resulting in a score of –2. At final assessment, attainment of each goal was rated and given an outcome score. Attainment of goals “as expected”, “a little better than expected” or “much better than expected” was indicated by an outcome score of 0, +1 or +2 respectively. Attainment of goals “a little less than expected” and “a lot less than expected” corresponded with outcome scores of –1 and –2 respectively. A final GAS change t-score was then calculated using a formula and automated spreadsheet, to determine degree of change (i.e. improvement, no change, deterioration) (Turner-Stokes 2009).

*5 Metre Walk Test*

The 5-metre walk test (5mWT) measured walking speed of participants able to walk (Peters, Fritz and Krotish 2013). Participants were asked to walk as quickly and
safely as possible along a marked 7-metre track. Timing commenced once the participant crossed the 1-metre mark and ceased once crossing the 6-metre mark. Two trials were performed, recorded and averaged for each participant. The time to complete the 5-metres was converted into walking speed reported in metres per second (m/s). The need for physical assistance or assistive devices was recorded.

Motor Assessment Scale

The Motor Assessment Scale (MAS) described participant motor function. Participant performance on the eight MAS items was documented with scores ranging from zero to six with higher scores indicating better performance. The MAS has excellent test-rest reliability for individuals with chronic stroke (Carr et al. 1985). As the MAS is designed specifically for individuals after stroke and scores the affected side, both sides were assessed for participants with other neurological conditions, and the poorer performing side recorded.

Secondary Outcomes

The World Health Organisation Quality of Life- Brief Version (WHO QOL-BREF) The WHOQOL-BREF assessed participant QoL. The participant rates 26 items based on their self-perceived QoL. Two items assess overall self-perceived QoL and satisfaction with general health. The remaining 24 items assess satisfaction of four domains: physical health (7 items), psychological health (6 items), social relationships (3 items) and environmental health (8 items). Raw scores were calculated and interpreted per domain with higher scores indicating higher perceived QoL (Gholami et al. 2013).

Exercise Self Efficacy Scale

The Exercise Self Efficacy Scale (ESES) gauged participant confidence in performing regular exercise. Responses to each of the 10-items were scored on a 4point scale, with a maximum score of 40. Higher scores indicate higher self-efficacy. The ESES is a reliable questionnaire with high internal consistency (Kroll et al. 2007).
Data Analysis
Excel was used to analyse data, generate descriptive statistics and graphs. A deductive approach was used to thematically analyse goals obtained from the GAS and participant NDIS plans (Braun and Clarke 2006). Goals were categorised into themes based on the ICF model (WHO 2001b). As NDIS funds Physiotherapy and both NDIS and Physiotherapy aim to be centred around goals, alignment of such goals was determined by comparing participant NDIS goals with their corresponding Physiotherapy goals. Two members of the research team separately examined the goals and their alignment.

Each participant’s baseline and latest recorded primary and secondary outcomes were used for data analysis. This was a pre-determined decision prior to data analysis to ensure data was present for participants who were discharged from Physiotherapy prior to the 6-month study timeframe.

Participant condition and diagnosis data was categorised from raw extracted data for analysis purposes. Participants were categorised on their condition (e.g. neurological) and more specifically based on their diagnosis (e.g. progressive) irrespective of time post diagnosis or injury.

Results
Flow of participants
Thirty-eight percent of individuals attending the clinic at the time of the study were utilising NDIS funding. Nineteen individuals were eligible for the study, and 13 (68%) consented to participate. One participant withdrew, prior to baseline assessment, so 12 individuals participated in the study. Outcome measures were recorded at 2- and 6-months for 25% and 75% of participants respectively.

Participants and Physiotherapy treatment
Participant demographics are presented in Table 1. Participants attended a median of 19 individual (range = 0 to 41) and 0 (range = 0 to 17) group Physiotherapy sessions over 6 months. Median time in Physiotherapy over 6 months was 1185 minutes (range = 180 to 2460 minutes). One participant received Physiotherapy at
home, whilst the remainder at the clinic. Five participants received both musculoskeletal and exercise intervention, six solely exercise while one received only musculoskeletal. Exercise interventions were individualised and included strengthening, mobility (e.g. walking, transfers, sit to stand), cardiovascular (e.g. bike, boxing), balance (e.g. stepping, weight shift) and stretching/range of motion exercises (e.g. spine mobility, limb stretching). NDIS funding fully covered the cost for ten participants. Two participants also utilised private funding (private health insurance) to attend additional sessions, which for one participant occurred when NDIS funding for Physiotherapy ended. Eleven (92%) participants were able to access Physiotherapy who were otherwise unable with the remaining participant able to access more frequent Physiotherapy due to of NDIS funding. [Insert Table 1 near here]

**Goals and goal attainment scaling**
Ten (83%) NDIS plans and corresponding NDIS goals were accessible, with an average of 2 short-term goals per participant. Many NDIS goals covered several ICF domains and subdomains, reflecting the broad nature of such goals.

NDIS goals focused on age appropriate accommodation meeting the individual's needs, management of anxiety, depression and assistance with activities of daily living (ADLs). Additional NDIS goals encompassed developing communication and social skills to build relationships, improving mobility and accessing specialised equipment (see Figures 1a, 1b and 1c). Examples of participant NDIS goals can be seen below:

**Participant 1**
- “see if there is equipment which can help to maintain or increase independence”
- “live with people more my own age”,

**Participant 4**
- “to have weekly domestic support around my house ...”,
- “to access specialist disability housing so I can move around in and feel safe”.

**Participant 6**
- “improve my mobility to be able to walk again……”,

Participant 12

- “like to learn how to cope with social situations....... so I can participate in the community and…. increase my independence”.
- “to manage my behaviours and anxiety and increase my emotional resilience to be able to enjoy my life”.

Participant 8

- “age appropriate accommodation”

[Insert Figure 1a, 1b, 1c near here]

Upon exploring alignment of NDIS goals and Physiotherapy goals, it was apparent that Physiotherapy goals were a subset of NDIS goals. Most participants accessed Physiotherapy to work towards mobility goals. (e.g. walking further or with reduced assistance) with 78% of goals classified under mobility subdomain (see Figure 7 and Appendix 1). Seventeen Physiotherapy goals were set at baseline and reassessed at study completion. At baseline 15 goals were rated at –1 indicating some ability while two were rated at –2 indicating no ability. At study completion 41% (n=7) of goals were attained as indicated by an outcome score of 0, +1 or +2. Fifty-eight percent (n=10) of goals were not attained with outcome scores of –1 or –2, however function and scoring for nine of those goals was equal to baseline indicating maintained function. Only one goal scored worse than baseline indicating functional decline. Five participants displayed positive change in goal attainment (positive t-score) while three participants had no change (t-score 0). One participant had a negative t-score, however improved ‘more than expected’ in one of his three goals. He did not achieve the remaining goals because of a toe infection. [Insert Figure 2 near here]

Outcome measures

Variability in change for outcome measures was large (see Figures 3 to 6). Participant walking speed on the 5-metre walk test displayed a mean improvement of 0.04m/s (SD 0.11m/s). Change scores for upper and lower limb aspects of MAS had a mean improvement of 1 point (SD 1.49 points) and 0.5 points (SD 2.84 points)
respectively. QoL score change on WHO QOL-BREF varied between domains. The physical domain had a mean change of 0 points (SD 3.36 points). Psychological and environmental domains displayed mean improvements of 0.75 points (SD 4.14 points) and 1.83 points (SD 4.63 points) respectively. The social domains mean decline was –1.17 points (SD 2.89 points). ESES mean improvement was 1.92 points (SD 4.93).

[Insert Figure 3 near here]
[Insert Figure 4a, 4b near here]
[Insert Figure 5a, 5b, 5c, 5d near here]
[Insert Figure 6 near here]

Case examples

**Case Study number one – Participant Three**
Participant three sustained a spinal cord injury over 20 years ago, is wheelchair dependent and community dwelling with external support for personal care. She accessed weekly home-based NDIS fully funded Physiotherapy (floor or seated strength and mobility exercises) from the clinic for 11 months. She reported recent decline in strength, transfer ability and writing requiring home modifications, assistive technology and greater assistance with ADLs.

During the study she received 21 Physiotherapy sessions. Her two goals were to maintain independent transfers from her bed and toilet to her wheelchair. Her baseline function for both goals were rated as -1. Participant three stated these goals were vitally important to her as “if I can't manage the transfers any longer, I will be completely immobile and totally dependent”.

**Goal achievement and outcome measure results**
Upon 6-month goal review, she achieved positive change in GAS (t-score 8), attaining her goal of maintaining transfers to and from her bed “as expected” (correlating to a score of 0). However, her wheelchair to toilet transfer goal attainment was “less than expected”, correlating to a score of -1. There was a slight increase in her physical and social relationships QoL. Scores on ESES,
environmental and psychological QoL decreased. NDIS enabled her to access supports, equipment and remain community dwelling.

**Case Study number two– Participant 9**
Participant nine sustained a right sided hemiplegia post stroke over 10 years ago and lives in the community with family support for ADLs. Support workers accompany him to external activities (e.g. hydrotherapy). He has accessed individual and group NDIS fully funded Physiotherapy (manual therapy and lower limb strengthening, cardiovascular, mobility and balance exercises) from the clinic for 11 months.

During the study he received 19 individual sessions (ranging from 30 to 60 minutes) and 13 group sessions (1-hour). His two goals were to independently walk 500 metres with his walking stick outdoors and ascend 4 steps holding a railing. At baseline, function for these goals was rated as -1 and -2 respectively. Participant 9 expressed the importance of goal setting, stating “having many smaller goals has given me more sense of accomplishment” and “I have a feeling of accomplishment when I can do things that were not possible before”.

**Goal achievement and outcome measure results**
Within the 6-month period he sustained a fall reducing confidence mobilising outdoors. Subsequently, there was no change in function scoring, attaining improved outdoor walking “less than expected” (correlating to a score of -1) and stair ascent “much less than expected” (correlating to a score of -2). His GAS t-score was zero, indicating function was equal to baseline. Furthermore, his walking speed decreased slightly. Due to the fall, his treatment was adjusted to include manual therapy. His scores remained unchanged or slightly decreased on the MAS, ESES and social relationships QoL. Physical, psychological and environmental QoL scores increased. NDIS enabled access to supports and the community.

**Discussion**
This is the first known study to investigate outcomes in individuals accessing NDIS funded community-based Physiotherapy. As NDIS has prompted a shift in Australian
Physiotherapy services, it is important to understand the outcomes experienced by this unique population to guide continued development of such services. Within this study, all participants improved or maintained function of at least one Physiotherapy goal. However, this was not reflected in physical and subjective measures, resonating with previous research (Barker et al. 2017, Rannisto et al. 2015) and may have been a result of attempting to select outcome measures suitable for individuals with a varying degree of function. Such outcome measures may not have been sensitive enough to capture changes for some participants, while others scored highly at baseline resulting in a ceiling effect upon final assessment (Barker et al. 2017). Nevertheless, it has long been debated that standardised outcome measures do not provide a complete picture of individual needs or goals (Hurn, Kneebone and Cropley 2006) because individual goals are not commonly captured by standardised outcome measures (Rannisto et al. 2015, Khan, Pallant and Turner-Stokes 2008). This study highlights the need to ensure alignment between outcome measures, Physiotherapy goals and NDIS goals as all such factors are parts of ‘what matters’ to the NDIS participant. Furthermore, this study emphasises then need to measure at the impairment, activity and participation level to ensure Physiotherapy interventions are making changes at each aspect of life for individuals with disability.

It is important to use formal goal setting tools in conjunction with standardised measures which commonly have normative values to compare with a study population (Turner-Stokes 2009). Literature demonstrates benefits of goal setting as a person-centred outcome measure (Hurn et al. 2006). Yet a person-centred approach is rarely used during hospital-based rehabilitation goal setting despite being associated with better functional outcomes and improved goal attainment in neurorehabilitation (Rosewilliam et al. 2011, Turner-Stokes et al. 2015). NDIS plans and Physiotherapy aim to be centred around individualised goals. Within the current study, it was apparent that Physiotherapy goals were a subset of short term NDIS goals. Physiotherapy goals focused on mobility while NDIS goals were broad, including improving mobility, accessing accommodation and therapy. The broad nature of NDIS goals within the current study may have been a result of the complex needs of individuals accessing NDIS funding.
Change in participant outcome measures varied, with improvement, deterioration and maintenance observed, the latter of which should not be overlooked. NDIS seeks to provide long term support for individuals with permanent and significant disability (May et al. 2018). Without ongoing Physiotherapy, individuals with chronic disability can deteriorate, and become vulnerable to the consequences of inactivity (Allen et al. 2019, Ertekin et al. 2012). Moreover, this population tends to have more comorbidities further predisposing them to increased health risks and reduced QoL (ABoS 2016). To promote optimal function, reduced social isolation and associated risks of inactivity, on-going Physiotherapy is required (Allen et al. 2019, Ertekin et al. 2012).

Within this study, NDIS funding provided participants access to more frequent and otherwise inaccessible Physiotherapy. Physiotherapy benefits motor and nonmotor symptoms and has the ability to reduce disease progression in individuals with neurodegenerative conditions (Barker et al. 2017, Allen et al. 2019, Ertekin et al. 2012, Spencer et al. 2018, Baque et al. 2016, Pollock et al. 2007, Dorsch et al. 2018, Latimer-Cheung et al. 2013). By funding individuals with chronic health conditions to access Physiotherapy, NDIS seeks to fulfil one of its insurance principals, “to invest in people with disability early to improve their outcomes later in life” (NDIA 2019-section 4.3).

This study was strengthened by using GAS, a formal individualised goal attainment tool, which recognises progression towards attaining goals, as opposed to an all-or-nothing approach. To minimise bias, goal scoring levels were predefined in individualised follow-up guides prior to treatment commencement. However, study limitations need to be considered when interpreting data. Staff setting goals had minimal experience using GAS thus potentially impacting the reliability without the recommended 1-year of GAS implementation experience (King et al. 2000). Furthermore, the study sample is not truly consecutive. Finally, those who consented to participating may not be representative of the entire population as they were accessing a service provider and may have been more motivated for therapy or had strong views about NDIS that they wished to express.
In conclusion, this study provides information on individuals with NDIS funding accessing private community Physiotherapy. It demonstrates goal attainment while supporting previous literature that goal setting and GAS capture changes not evident in standardised outcome measures. This study provides important information to physiotherapists treating individuals with NDIS funding. Further, larger scale longitudinal research, across multiple organisations, is recommended to explore longer term outcomes for such participants.

**Declarations**

**Ethics Approval and Consent to Participate**
Ethics approval was obtained from Macquarie University Human Research Ethics Committee (5201952888188). Written informed consent was obtained from all participants.

**Consent for Publication**
Not applicable

**Availability of Data and Materials**
Not applicable

**Competing Interests**
The main author works part-time at the private clinic, while the co-author consults once weekly. However, this research was not conducted as part of that employment and clinic directors were not involved in research design or analysis.

**Funding**
This research is supported by an Australian Government Research Training Program (RTP) Scholarship.

**Authors Contributions**
KAB was the principal investigator. KAB and KS conceptualized the study. KS supervised the study while KAB worked closely with LM to oversee the
implementation of the study. KAB and LM collected data. KAB and KS analysed the
data. KAB drafted the manuscript. KS reviewed and commented on drafts and
approved the final manuscript prior to submission.

**Acknowledgements**

We would like to acknowledge the individuals who participated in this study, Laura
McCredie and Emily O'Laco for assistance with data collection, Joanne Glinsky and
Diane Turner for editorial assistance.
References


https://www.who.int/classifications/icf/en/
Appendices

Appendix 1

**Figure 7: Participant Physiotherapy Goals – Specific**

![Bar chart showing participant physiotherapy goals as outlined at baseline assessment using Goal Attainment Scaling (GAS). Goals have been classified based on ICF framework under two domains 1) activity and participation; 2) body functions/impairments. Goals have then been further classified into ICF subdomains with all but the neuromuscular movement subdomain falling under the activity and participation domain.](image)
### Table 1. Demographics, Medical and NDIS Characteristics of Participants

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N=12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age (years), median (range)</strong></td>
<td>55 (44)</td>
</tr>
<tr>
<td><strong>Gender, Male, n (%)</strong></td>
<td>6 (50)</td>
</tr>
<tr>
<td><strong>Diagnosis, n (%)</strong></td>
<td></td>
</tr>
<tr>
<td>Progressive</td>
<td>5 (42)</td>
</tr>
<tr>
<td>Recovery Potential</td>
<td>6 (50)</td>
</tr>
<tr>
<td>Other</td>
<td>1 (8)</td>
</tr>
<tr>
<td><strong>Condition, n (%)</strong></td>
<td></td>
</tr>
<tr>
<td>Multiple Sclerosis</td>
<td>2 (17)</td>
</tr>
<tr>
<td>Cerebral Palsy</td>
<td>1 (8)</td>
</tr>
<tr>
<td>Spinal Cord Injury (complete and incomplete)</td>
<td>3 (25)</td>
</tr>
<tr>
<td>Leukodystrophy</td>
<td>1 (8)</td>
</tr>
<tr>
<td>Stroke</td>
<td>4 (33)</td>
</tr>
<tr>
<td>Depression/ Anxiety</td>
<td>1 (8)</td>
</tr>
<tr>
<td><strong>Cognitive Impairment, yes, n (%)</strong></td>
<td>2 (17)</td>
</tr>
<tr>
<td><strong>Weeks Attending Physiotherapy clinic at study commencement, n (%)</strong></td>
<td></td>
</tr>
<tr>
<td>1-30</td>
<td>4 (33)</td>
</tr>
<tr>
<td>31-60</td>
<td>5 (42)</td>
</tr>
<tr>
<td>61-90</td>
<td>3 (25)</td>
</tr>
<tr>
<td><strong>Social Support, n (%)</strong></td>
<td></td>
</tr>
<tr>
<td>Nursing Home</td>
<td>4 (33)</td>
</tr>
<tr>
<td>Community – Family Support</td>
<td>3 (25)</td>
</tr>
<tr>
<td>Community – External Support</td>
<td>4 (33)</td>
</tr>
<tr>
<td>Community - Independent</td>
<td>1 (8)</td>
</tr>
<tr>
<td><strong>Able to walk, yes, n (%)</strong></td>
<td>10 (83)</td>
</tr>
<tr>
<td><em><em>Walking aid used - baseline</em>, n (%)</em>*</td>
<td></td>
</tr>
<tr>
<td>Nil aid</td>
<td>3 (25)</td>
</tr>
<tr>
<td>FASF</td>
<td>3 (25)</td>
</tr>
<tr>
<td>BWS harness</td>
<td>1 (8)</td>
</tr>
<tr>
<td>Quad stick</td>
<td>1 (8)</td>
</tr>
<tr>
<td>4WW</td>
<td>1 (8)</td>
</tr>
<tr>
<td>Assistance required to walk - baseline*, n (%)</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>---</td>
</tr>
<tr>
<td>nil</td>
<td>4 (33)</td>
</tr>
<tr>
<td>Standby assistance</td>
<td>3 (25)</td>
</tr>
<tr>
<td>1 assist</td>
<td>3 (25)</td>
</tr>
</tbody>
</table>

NDIS- National Disability Insurance Scheme: SD- standard deviation: N= number: FASF = forearm support frame: BWS = body weight support: 4WW = 4 wheeled walker: *n = 10 participants able to walk: Standby assistance = physiotherapist close by for safety but does not provide any assistance or touch the participant: 1 Assist = 1 physiotherapist provides hands on assistance.
Figures

Figure 1a: Short Term NDIS Goals: ICF Domain- Activity and Participation

![Bar chart with ICF subdomains: D2 - general tasks and demands (daily routines, managing behaviour), D4 - mobility, D5 - self care, D6 - domestic life, D7 - interpersonal relationships, D9 - community, social and civic life.]

Figure 1b: Short Term NDIS Goals: ICF Domain- Body Functions/ Impairments

![Bar chart with ICF subdomains: B1 - mental functions, B7 - neuromusculoskeletal and movement related functions.]

Figure 1c: Short Term NDIS Goals: ICF Domain- Environmental Factors

Figure 2: Participant Mobility Goals
Figure 3: Participant Walking Speed

Figure 4a: Motor Assessment Scale- Upper Limb
Figure 4b: Motor Assessment Scale – Lower Limb

Figure 5a: WHO QoL- BREF - Physical Domain
Figure 5b: WHO QoL- BREF - Psychological Domain

Figure 5c: WHO QoL- BREF - Social Relationships Domain
Figure 5d: WHO QoL- BREF - Environmental Domain

Figure 6: Exercise Self Efficacy Scale
Figure Captions

- **Figures 1a, 1b, 1c.** NDIS goals as outlined in participant NDIS plans. Goals have been classified based on ICF framework domains and subdomains.

- **Figure 2.** Specific participant mobility goals as outlined in baseline assessment using Goal Attainment Scaling (GAS).

- **Figure 3** Participant walking speed at baseline and post Physiotherapy intervention. Speed is measured in metres / second.

- **Figures 4a and 4b.** Participant Motor Assessment Scale (MAS) score for the upper limb (addition of items 6,7 and 8) and lower limb (addition of items 3,4 and 5).

- **Figures 5a, 5b, 5c, 5d.** Quality of life scores at baseline and post Physiotherapy as measured by the WHO QoL- BREF with scores divided into 4 domains: physical, psychological, social relationships, environmental. Higher scores indicate higher perceived quality of life.

- **Figure 6.** Participant exercise self-efficacy score at baseline and post Physiotherapy measured using ESES. Higher scores indicate higher self-efficacy.
Figures

Figure 1

Specific participant mobility goals as outlined in baseline assessment using Goal Attainment Scaling (GAS).
Figure 1

NDIS goals as outlined in participant NDIS plans. Goals have been classified based on ICF framework domains and subdomains.
Figure 1

Participant exercise self-efficacy score at baseline and post Physiotherapy measured using ESES. Higher scores indicate higher self-efficacy.
Figure 1

Participant walking speed at baseline and post Physiotherapy intervention. Speed is measures in metres / second.
Figure 1

Participant Motor Assessment Scale (MAS) score for the upper limb (addition of items 6, 7 and 8) and lower limb (addition of items 3, 4 and 5).
Figure 1

Quality of life scores at baseline and post Physiotherapy as measured by the WHO QoL- BREF with scores divided into 4 domains: physical, psychological, social relationships, environmental. Higher scores indicate higher perceived quality of life.