

Beyond independence and falls: Home modification outcomes: A pilot study

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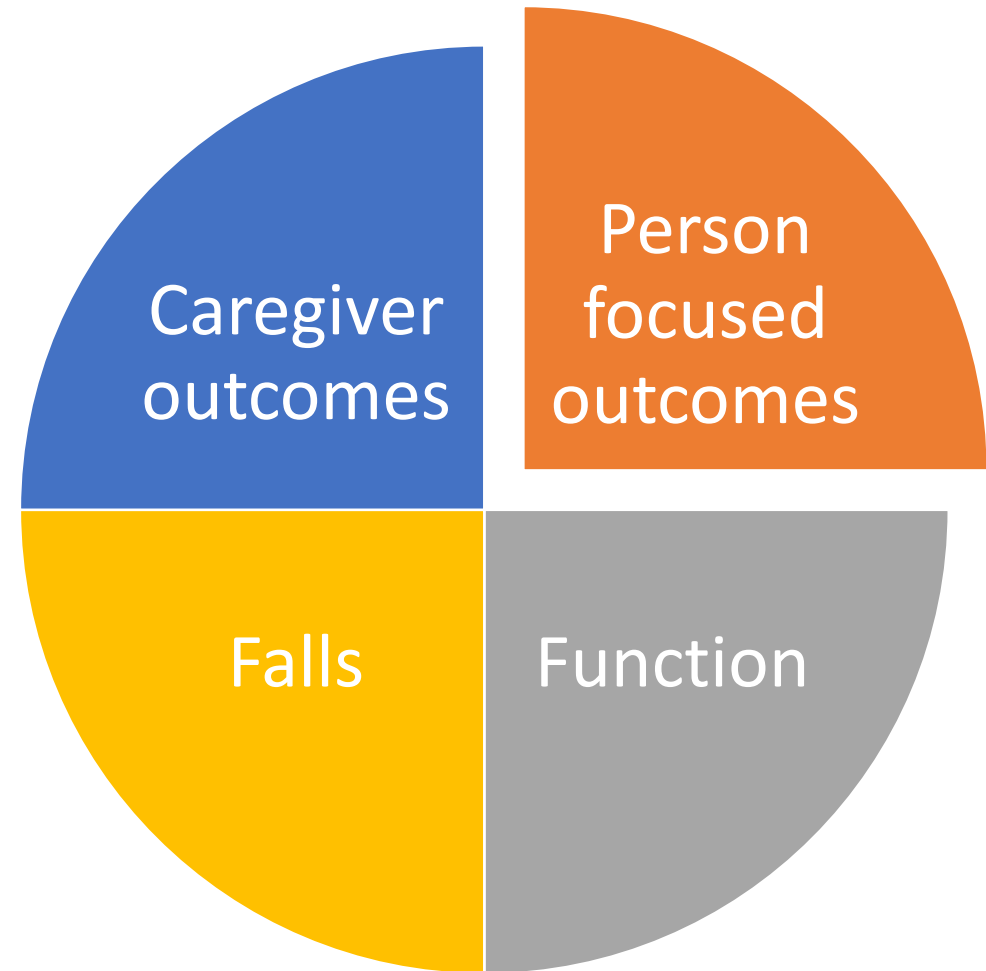


Presentation Overview

- Background information
- Aims of the study
- Methods
- Findings
 - Participation
 - Health related quality of life
 - Experience of home
 - Independence
 - Service information and satisfaction with service
- Practice implications
- Future research

Background

- Large body of evidence for the impact of modifications on falls and functional outcomes
- Limited evidence on more person focused outcomes
 - Quality of life
 - Participation
 - Experience of home/meaning of home
- Qualitative research suggests that person focused outcomes represent the more meaningful outcomes
- In line with goals and aspirations of NDIS



Aims

- Evaluate the impact of major home modifications on
 - Participation
 - Health related quality of life
 - Experience of home
 - Independence
- Secondary aim - to identify service related factors which may contribute to these outcomes.
- Comment on the appropriateness and usability of the measurement instruments for home modification practice and research

Methods

- Three major home modification service providers
- Pre and post evaluation using standardised measures and follow up in depth interviews

Measures

- Participation and quality of life
 - The Participation Survey Mobility (PARTS/M) (satisfaction and frequency) (Gray, Hollingswrth, Stark & Morgan, 2006)
 - Assessment of Quality of Life (AQoL4D) (Richardson, Iezzi, Khan & Maxwell, 2014)
- The experience of home
 - Dimensions of Home Measure (DOHM) (Aplin, de Jonge & Gustafsson, 2014a)
- Independence and safety
 - ADL Staircase (Sonn, 1996; Sonn & Hultér-Åsberg, 1991)
 - DOHM
- Service delivery
 - Post Home Modification Satisfaction Questionnaire (Aplin, de Jonge & Gustafsson, 2014b)
 - Purposefully designed questionnaire

PARTS/M

8. **How satisfied are you with your participation in outdoor home maintenance?** *(This includes for example gardening, or marking exterior repairs)*

☐ Very satisfied ☐ Satisfied ☐ Somewhat satisfied ☐ Dissatisfied

9. **How satisfied are you with your participation in leaving your home?** *(This involves leaving your home to go into the community for example to go shopping or to the doctor and includes getting into a vehicle).*

☐ Very satisfied ☐ Satisfied ☐ Somewhat satisfied ☐ Dissatisfied

10. **How satisfied are you with your participation in active recreation activities?** *(For example team sport, camping, swimming, golf, bowling, or bushwalking)*

☐ Very satisfied ☐ Satisfied ☐ Somewhat satisfied ☐ Dissatisfied

How frequently do you participate in active recreational activities?

☐ More than twice a week ☐ 1 to 2 times a week ☐ 1 to 2 times a month
☐ Never

11. **How satisfied are you with your participation in leisure activities?** *(For example going to the movies, dining out, attending concerts, board games, watching sports, reading, playing cards, spectator sports, and other hobbies)*

☐ Very satisfied ☐ Satisfied ☐ Somewhat satisfied ☐ Dissatisfied

How frequently do you participate in leisure activities?

AQoL4D

Four domains of health related quality of life –standardised scores out of 100

- Independent living
- Relationships
- Mental health
- Senses

AQoL-4D Basic Data Collection Copy

Tick the box next to the response that best fits your situation

aqol1. Do you need any help looking after yourself? (For example: dressing, bathing, eating)

- ☐ I need no help at all.
- ☐ Occasionally I need some help with personal care tasks.
- ☐ I need help with the more difficult personal care tasks.
- ☐ I need daily help with most or all personal care tasks.

aqol2. When doing household tasks: (For example: cooking, cleaning the house, washing)

- ☐ I need no help at all.
- ☐ Occasionally I need some help with household tasks.
- ☐ I need help with the more difficult household tasks.
- ☐ I need daily help with most or all household tasks.

aqol3. Thinking about how easily you can get around your home and community:

- ☐ I get around my home and community by myself without any difficulty.
- ☐ I find it difficult to get around my home and community by myself.
- ☐ I cannot get around the community by myself, but I can get around my home with some difficulty.

DOHM

Home as a place for family and friends	Strongly disagree	Disagree	Agree	Strongly agree
It is easy for me to do social activities outside of the home (For example visiting family and friends, shopping, attending clubs or community groups)				
I would like to do more social activities outside of the home (For example visiting family and friends, shopping, attending clubs or community groups) *				
Home as a place of activities	Strongly disagree	Disagree	Agree	Strongly agree
My home is easy to clean				
I would like to do more household tasks at home (For example, cleaning, laundry, managing household bills) *				
There are some household tasks that are difficult to do in the home (For example				

ADL Staircase

XV. The ADL Staircase (Hulter-Åsberg & Sonn, 1989; Sonn & Hulter-Åsberg, 1991)

Interviewer: This is an interview in combination with observation; see manual. Mark the grade of dependence with a cross.

Interviewer: Note that reason for missing should be registered for every item. If you get missing answers, state reason for this in the column to the right.

1	Feeding	Means the basic process of getting food from plate or equivalent into the mouth	
<input type="checkbox"/>	Independent	Feeds self without assistance	
<input type="checkbox"/>	Partly dependent	Feeds self except for getting assistance in cutting meat or buttering bread	
<input type="checkbox"/>	Dependent	Receives assistance in feeding or is fed partly or completely through tubes or with intravenous fluids	
			Reason for missing answer:.....
2	Transfer	Means moving in and out of bed, and in and out of chair	
<input type="checkbox"/>	Independent	Moves in and out of bed and in and out of chair without assistance, (may use support objects such as a cane or walker)	
<input type="checkbox"/>	Partly dependent	Moves in and out of bed or chair with assistance	

PMSQ

9 Items

- Achieved expectations
- Value for money
- Workmanship
- Service by builders and other contractors
- Service of occupational therapists
- Information received about process
- How involved
- Range of options provided
- Time taken

Post Modifications Satisfaction Questionnaire

Please circle the response that best describes how satisfied you are with the following aspects of your home modification.

A space has been provided for your comments on each aspect.

Please answer every question on the list

How satisfied are you	Not at all satisfied	Somewhat satisfied	Satisfied	Very satisfied	Extremely satisfied
That the modification achieved what you expected it to	1	2	3	4	5
Comments:					
With your value for money	1	2	3	4	5
Comments:					
With the workmanship of the builders. (For example a good finished product, no damage to the area)	1	2	3	4	5
Comments:					

Service provider approaches to service provision

Three different major home modification service providers

- **Service 1** – referring OT's provide recommendation and drawings, quotes from 2-3 different building companies, cheaper quote accepted, OT notified when work complete - assessment may or may not occur.
- **Service 2** – contracted OT, joint initial home visit with OT and on staff builder coordinator, OT completes assessment report and drawings, builders on staff complete work, follow-up home visit 3 months after build completed by OT
- **Service 3** – on staff OT's and builders, OT completes assessment report and drawings, builders on staff complete work, follow-up visit by OT completed once invoice signed off

Participants

- 16 unable or ineligible to participate
- 4 unable to continue after time 1
- 6 participants for final study
 - Three different Queensland major home modification service providers
 - Age: mean=60, range 33-81
 - all owned their homes

Participants

Participant	Gender	Age	Health conditions	Use of aids for mobility	Modifications completed	Self rated health	Living situation	Service
Keith	M	76	Parkinson's Disease, Emphysema	4WW	Major bathroom	Fair	With spouse	Service 1
Angie	F	58	Multiple Sclerosis	Power WC	Major bathroom, landing and ramp	Good	With spouse	Service 3
Steven	M	81	Polio, macular degeneration, osteoarthritis	Power WC	Major bathroom and water lift	Very good	With spouse	Service 2
Kate	F	33	Hypoxic brain injury, cardiomyopathy	Walking stick	Major bathroom	Poor	With spouse	Service 3
Gladys	F	73	Rheumatoid arthritis, Type 2 diabetes, hearing loss, cancer	4WW	Chair lift	Fair	Alone	Service 2
John	M	78	Osteoarthritis, lung disease	4WW	Kitchen taps, ramp and handrail at back door, shower platform	Fair	With spouse	Service 2

Initial findings



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Participation

Overall

- Increase in satisfaction in participation with bathing (mean 2.3 to 3.5)
- Increase in satisfaction in outdoor home maintenance (mean 1.5 to 2.5)
- Did not appear to capture some participation changes reported from participants and in the DOHM – for example participate in social activities outside of the home

Health related Quality of Life

- Promising change in health related quality of life as a group pre and post.
 - Small changes in independent living mean pre = 44, mean post = 54
- Individual findings show potential significance of change for some participants
 - Kate independent living 0 to 33, and relationships 33 to 56
 - Stephen 22 to 56 in independent living
 - John 11 to 33 in mental health

Experience of home

Privacy, safety and freedom

- Pre modifications
 - Felt unsafe moving around and doing activities in their home (mean=2.7)
 - Felt unsafe in their garden and yard (mean=1.8)
 - Worried about falling at home (mean=1.8)
 - Wanted to be able to do more on their own at home (mean=2.2)
- Post modifications
 - Slightly felt safer moving around and doing activities in the home (mean=3) and less worried about falling (mean=2.3)
 - Slight increases in participants feeling they could get out as much as they wanted to that they were free to do the things they wanted to at home

Identity and connection

- Slight increase in how happy participants were with the appearance of their home (mean 3.2 to 3.7)

“Bathroom looks a lot better - the appearance is modern and this has added value”

- Keith

Experience of home

Home as a social place

- Pre modifications

- Relationships were under stress due to caring demands (mean=2.5)
- Wanted to participate in more social activities at home and in the community, with activities out of the home being difficult

- Post modifications

- Steven more satisfied with level of social activities at home. For Steven and Gladys easier to do social activities outside of home and increase.

“They have no idea how much of a difference it has made. I can now get to the garden and its easier to go shopping” - Gladys

Experience of home

Occupations in the home

- Pre modifications
 - Participants wanting to do IADL's at home
 - Unable to move easily in the garden and yard
 - Not able to easily do leisure at home and wanting to do more
 - Not easy for carers to assist
- Post modifications
 - Moving in garden and yard increased to overall easily being completed
 - Still wanting to do more leisure
 - Easier for carers to assist

The temporal home

- Pre modifications most participants strongly agreed that their home would be safer and more comfortable with some changes – this did not change after modifications were complete
- After modifications Kate felt more set up for her future (1 to 3)

“The new lift means I can now access my garden, which was an activity I wanted to be able to do again - very meaningful to me.” - Steven

Experience of home

Structure, services and facilities

- Increases in condition of ventilation, fixtures and fittings, flooring, finishes and improved layout to home

Ambience and space

- Storage space in bathroom improved for 2 participants
- No change to ambience (light, outlook, temperature control, view)

“the verandas, being able to have a ramp to go outside. I hate being inside, I’m an outdoor person and ill go and sit under my palm tree and just sit there for hours on end’ - Angie

Independence

- 5/6 participants overall independence increased, Kate had a 4 point increase.
- 2 participants moved from dependent to independent in bathing.
- Kate had improvements in feeding, transferring, bathing, cooking and cleaning.
- John moved from independent to partly dependent in bathing.
 - Concerns about future given modification completed

Service information

- 4 participants contributed 50%, others 13% and 17% of modification cost
- All had concerns about financial contributions to be made (pre mods) and only one had concerns after the modifications
- Time from initial contact to modifications being completed ranged from 2-5months
- John and Keith reported there was no key contact person to communicate with, with Keith finding this very frustrating.

Post Modification Satisfaction Questionnaire

Overall very satisfied with service

- Ranged in scores from 27-43 (top score 45)
- Most common areas of dissatisfaction was the amount of information provided (mean=3.7, range 1-5) and range of options provided in design/materials/products (mean=3.7, range 1-5)
- Keith (lowest satisfaction score) considered not moving forward with modifications – poor communication between service provider, builders and client
- Kate disappointed with lack of options in design and materials. Reported decisions were made for them, was unable to choose colour of bathroom floor

Practice implications and future research

- Complexity of completing longitudinal research in major home modifications
- Routine assessment and outcome evaluation using standardised measures to gather larger data sets
- Assessment tools show promise
- To guide best practice
 - Research on how service related factors influence home modifications outcomes
 - Research evaluating models of practice/processes
- Best practice
 - Limiting complexity of service process for clients
 - Involving OT's and builders together
 - On staff experts and coordinator
 - Evaluation critical

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Thank you

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