

Decisions about equipment and adaptations used for bathing and showering

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Abstract

Bathing and showering equipment and adaptations are commonly prescribed by Occupational Therapists in Adult Services. Despite this very little is known about what affects whether or not these items are used by individuals. With demands increasing it is essential that the experiences, preferences and needs of users are better understood in order that the equipment and adaptations provided are fully utilised and the need of the user met in a client-centred approach.

This article details the research 'Equipment and Adaptations used for Bathing and Showering: Views of Individuals on their Use' (McLaggan, 2011) which examined:

- *What equipment and/or adaptations do people use for bathing and showering?*
- *Do people utilise all the equipment and/or adaptations they possess?*
- *What affects whether or not people use equipment and/or adaptations?*

The article will consider the findings from this research in relation to existing research in this field.

Keywords: bathing, showering, equipment, adaptations

Background

Occupational Therapists (OTs) facilitate occupational performance of individuals by removing barriers, adapting or modifying physical environments; promoting function and independence and offering support, guidance and education for individuals and carers (Creek, 2003).

In 2009/2010 over half a million people in England received equipment and minor adaptations from councils with adult social services responsibilities at a cost of over £233 million (The Information Centre for Health and Social Care, 2010). Additionally many Housing Associations provide minor adaptations for their tenants. During the same time period, 127,070 Disabled Facilities Grants were provided under the Housing Grants and Regeneration Act (1996) at a cost of over £232 million (Department of Communities and Local Government, 2010).

Findings from studies conducted by Riley *et al.* (2008) found that over 33% of referrals to councils with adult social services responsibilities were for OT services, although OTs only make up 1.9% of the Social Care workforce (Local Authority Workforce Intelligence Group, 2007). There are 10 million people in the United Kingdom (UK) with a disability (Department for Work and Pensions, 2011) and councils with adult social services responsibilities are struggling with demand and thus waiting lists for equipment and adaptations (College of Occupational Therapists, 2008a) and this will continue to increase in an ageing population. There is strong evidence to suggest that equipment and adaptation usage increases with age (Kaye *et al.*, 2008; Pressler & Ferraro, 2010), therefore effective provision of services is vital.

OTs in Adult Services are at the heart of the personalisation agenda (Department of Health, 2007; Riley *et al.*, 2008), providing preventative and reablement services along with enabling those with complex needs to remain living in the community in their own homes for longer (College of Occupational Therapists, 2008b). Equipment and adaptations have the capacity to produce cost savings (Mann *et al.*, 1999; Heywood *et al.*, 2005), especially to the costs of residential care and intensive home-care services (Heywood & Turner, 2007). The role of the

OT includes working with people to encourage them to select, try and use equipment and adaptations (Schemm & Gitlin, 1998), with the simplest and most cost effective solutions such as equipment and minor adaptations being considered first (Dean, 1999a).

Demand for bathing and showering related assessment is high because this is one of the first activities of daily living with which people with deteriorating functional abilities experience difficulties. This is because these activities are energetic; requiring a high degree of strength, balance (including the ability to stand on one leg), coordination and tolerance to temperature change (Foster, 2002; Mackey & Nanocarrow, 2006). Bathing is a complex activity (Naik *et al.*, 2004) which involves a range of sensorimotor and cognitive skills (Dean, 1999b). Bathing difficulties have been found to be a strong predictor of disability within other activity of daily living areas (Jaggar *et al.*, 2001; Gill *et al.*, 2006a). Gill *et al.* (2006b) demonstrated that bathing difficulties are strongly associated with the risk of admission into a nursing home and to receiving help in the home (LaPlante *et al.*, 2002).

Literature search

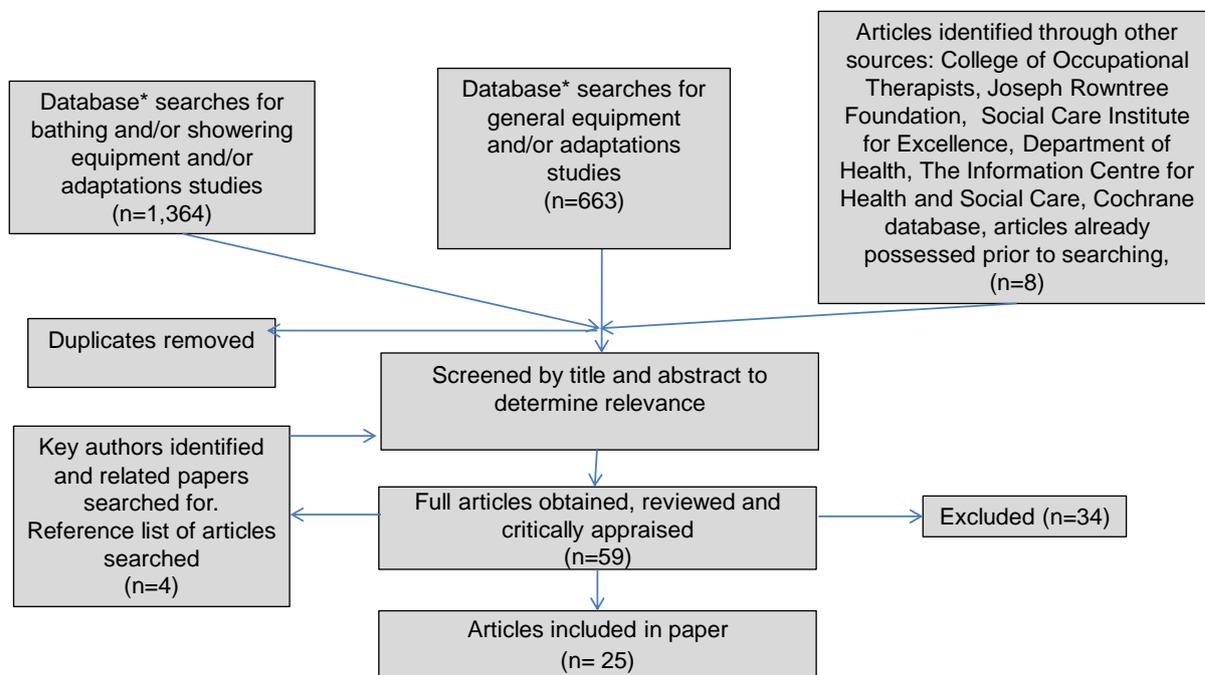
The main literature searches were conducted in 2011 and updated in August 2015. Electronic databases were searched to identify general equipment and/or adaptation studies using the search terms 'adults', 'equipment' or 'adaptations' and 'experiences', and specific bathing or showering equipment and/or adaptations studies by using the search terms 'adults', 'bathing' and 'equipment' or 'adaptations'. **Table 1** shows the search terms used.

Additional searches included the reference lists of relevant articles and grey literature including unpublished dissertations and local authority service evaluations, which were obtained through the College of Occupational Therapists and the Local Authority where the research took place.

International literature was included, however literature written in another language was excluded. The database searches excluded work published prior to 2000, however this restriction did not apply to the other searches. **Figure 1** shows the process by which information was screened for inclusion or exclusion and number of studies at each stage.

Table 1. Literature search: search terms and alternative terms.

Search Term	Alternative Terms	Search Term	Alternative Terms
'Equipment'	<ul style="list-style-type: none"> • Adaptive equipment • Disability equipment • Assistive technology • Assistive devices • Aids (not HIV) 	'Experience'	<ul style="list-style-type: none"> • Attitudes • Feelings • Opinions • Views • Satisfaction • Experiences
'Adaptations'	<ul style="list-style-type: none"> • Housing adaptation • Home modification • Minor adaptation • Major adaptation • Home alteration 	'Bathing'	<ul style="list-style-type: none"> • Bathing • Showering • Washing • Personal care
'Adults'	<ul style="list-style-type: none"> • Older people • Elderly • Physical disability • User 		

Figure 1. Process and number of studies identified and screened for inclusion or exclusion.

* Databases searched Allied and Complementary Medicine Database, Cumulated Index of Nursing and Allied Health Literature, International Bibliography of the Social Sciences, MEDLINE, PsycINFO and Web of Science.

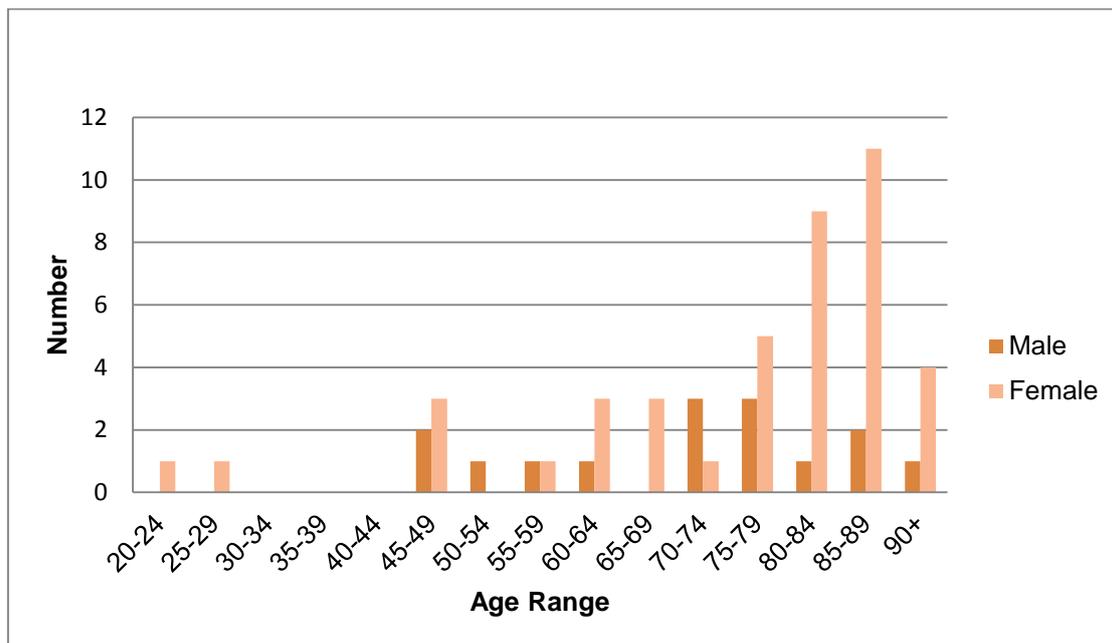
Studies were screened through reading of titles and abstracts, if these seemed relevant the full texts were obtained. Any which made explicit reference to the inclusion of bathing or showering equipment and/or adaptations were critically appraised and included in this article.

Methods

The research used mixed methods and the research design used a 'sequential explanatory strategy' characterised by the collection and analysis of quantitative data which used a postal questionnaire in the initial phase followed by collection and analysis of qualitative data using semi-structured interviews in the second phase (Creswell, 2009).

Participants who were invited to take part in this research lived within a Borough Council in the Southwest of Hampshire and were contacted following involvement from the Adult Services OT Team between January and March 2011. Inclusion criteria were: being over 18 years of age, living in the community, having a physical disability and having equipment and/or adaptations for bathing or showering. People previously known to the researcher, known to have a terminal illness or a cognitive impairment were excluded.

The purpose of the questionnaire was to investigate the equipment and/or adaptations used for bathing and showering, whether there was a difference between what people owned and what they used and to find out what possible factors affect whether or not people use equipment and/or adaptations.

Figure 2. Questionnaire sample: age and gender.

Questionnaires (40 related to shower equipment and adaptations and 17 for bathing equipment and adaptations) were posted in May 2011 to the 57 people who met the inclusion criteria. **Figure 2** shows the distribution of age ranges and gender.

There was an overall response rate of 42%, 14 showering and 10 bathing questionnaires were returned.

Some basic descriptive statistics were computed and content analysis was used to analyse the free text responses in the questionnaires; the categories that were identified went on to inform the topics that were covered in the face-to-face semi structured interviews. These included how, why and what equipment and/or adaptations were being used, how interviewees felt about this and how satisfied they were with their current routine and equipment and/or adaptation usage, the appearance and physical features of their equipment and/or adaptations and whether these were important. They were also asked about the role of their equipment and/or adaptations in relation to falls.

In-depth interviews were carried out with four participants chosen to reflect users of a variety of types of equipment and adaptations, who had provided interesting views and, in particular, had identified any equipment or adaptations not being used which merited further exploration.

Limitations

The study has a number of limitations:

- Questionnaire sample did not equally represent the views of men and people under 75 years old.
- Questionnaire target sample size was small so not clear whether the views obtained are representative of all users.
- Interviewee sample unlikely to be representative of the whole questionnaire sample in their views due to self-selection and small sample size.
- Interviewee sample over-represented the viewpoints of elderly women who used equipment or adaptations without carer assistance.
- In some cases the equipment and adaptations had only been used by participants for a short length of time.

These limitations mean that the results of this study cannot be generalised, but may be useful to accentuate our understanding that people's usage of equipment and/or adaptations is a complex topic.

Findings

Variety of equipment and adaptations used

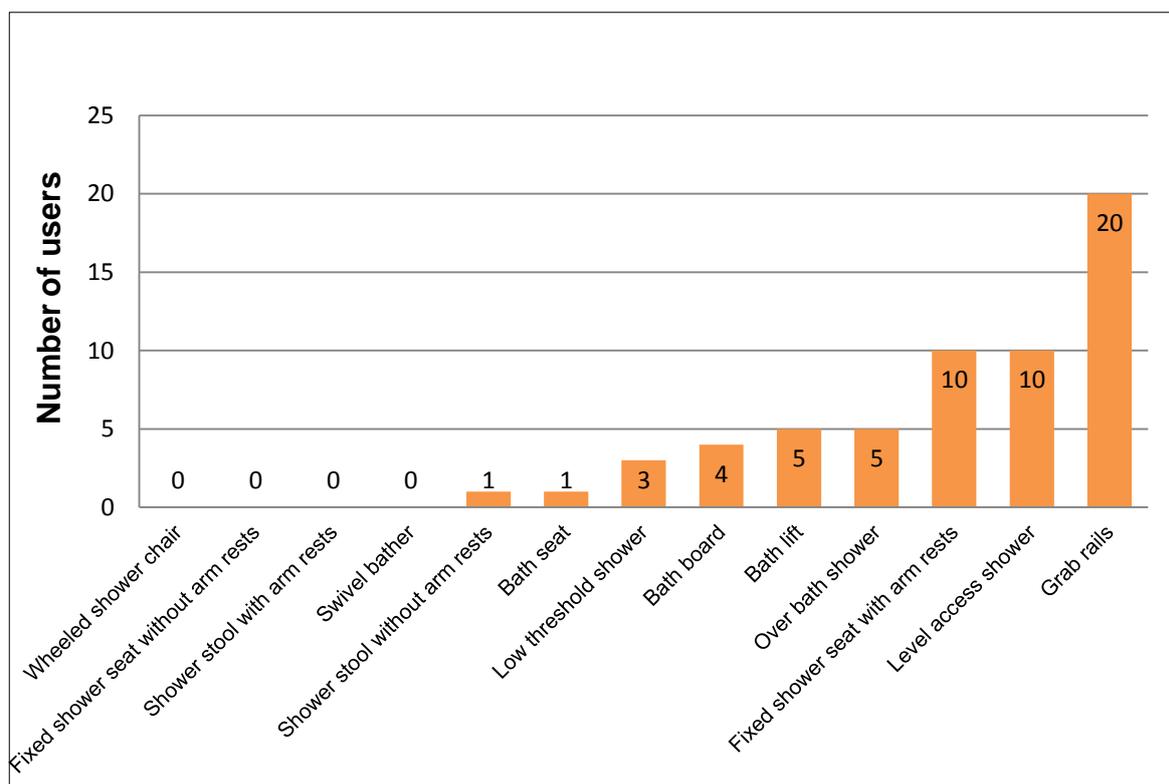
The most commonly prescribed equipment and adaptations were documented in the questionnaires with the anticipation that all of these would be in use, therefore it was a surprise that no wheeled shower chairs or swivel bathers were in use. **Figure 3** shows the usage of each equipment and adaptation.

There are many more types of equipment and adaptations that are available such as hoists over the bath, shower-loos, specialist baths and shower benches which were not explored in this study. Perhaps if these had been included in the questionnaire they would have evoked different, perhaps more extreme responses from participants, given that one of the interviewees talked of the humiliation if she were ever to need a hoist to assist with getting in/out of the bath.

Comparing these current findings to other research is problematic, particularly with international studies (Schemm & Gitlin, 1998; Wielandt *et al.*, 2001; Gill *et al.*, 2007), as they include many items that in the UK would either not be classed as specialist OT equipment, such as non-slip mats, or users would be expected to provide for themselves, for example handheld shower sprays, wash mitts and long-handled brushes.

By focusing on the most popular types of equipment and adaptations in the UK, it was hoped that the findings from this study would be more capable of generalisation to other areas. Making comparisons between studies as to what equipment and adaptations are least and most popular is difficult because each study focuses on different items.

Figure 3. Number of people using each equipment and adaptation.



Three of the five common types of shower seats were not used by any of the participants. Most other studies do not break down the types of shower seats used and categorise them only as wall-mounted or free-standing: however the Medical Devices Agency (2002) did report on usage rates of the wheeled shower chair (13%) being much higher than this study which found none being used. As was found with the current study, other studies have also found the use of grab rails (De Craen *et al.*, 2006; Häggblom-Kronlöf & Sonn, 2007) and level access showers (Medical Devices Agency, 2002) most popular for assisting with bathing and showering.

Reasons for non-use

Six items were reported to be owned but not used; **Table 2** gives details of these.

According to the existing evidence from other studies, the majority of reasons for non-use of equipment and minor adaptations have related to users' needs changing through a deterioration or improvement in their condition. The majority of studies which have explored item non-use have done so following hospital discharge or rehabilitation, where a commonly cited reason for non-use and abandonment includes users improving and the items becoming redundant (Wielandt *et al.*, 2001, 2006; Steel & Gray, 2009). In these settings rates of non-use can be quite high as items are often provided for short-term use. These studies usually only review equipment or grab rails, as more complex and costly adaptations are usually only provided by OTs working for councils with adult social services responsibilities where there is a long-term need.

The sample in this study differs to those discharged from hospital or undergoing rehabilitation as Adult Services users tend to be people with long-term and chronic conditions in which their functional abilities are unlikely to improve. Also since provision had only been made a few months previous to taking part in the study, it was unlikely their needs would have changed during this time. This may explain the low rates of non-use found in this study.

A variety of items were not being used. These included two grab rails, a wall fixed shower seat with arms, a bath seat, a bath board and an over-bath shower. Other studies which have itemised items not in use (Pendleton, 1985; Clemson & Martin, 1996; Chamberlain *et al.*, 2001; Hoffmann & McKenna, 2004) do not identify any specific types of items which are more likely to be abandoned.

Whilst the number of equipment and adaptations found to be unused was small, these findings are limited because of the short timescale in the study. Abandonment rates vary (De Craen *et al.*, 2006) according to the sample studied (rehabilitation, hospital or community) and methods used, which make the results hard to compare. Shower seats are commonly provided as part of level access shower installations (Kimbell, 1999) and it is important that the height of these allow users' feet to be supported to prevent users sliding forwards in the seat (Disabled Living Foundation, 2007). A wall-fixed shower seat provided with a level access shower adaptation was not being used, mainly because the interviewee felt she was going to slip off the seat, which she had attributed to it being too high. Heywood (2001) found seat surfaces can become slippery when wet.

Other studies have also found shower seats to be unused, with reasons for non-use also including safety concerns (Clemson & Martin, 1996; Hoffmann & McKenna, 2004; Medical Devices Agency, 2002). These studies, except for Medical Devices Agency (2002) study, do not, however, make any differentiation between the types of shower seats which are not being used or what the nature of the reported safety concerns are. In the Medical Devices Agency (2002) study one reason for non-use was due to the user feeling as if they were slipping off the seat, as was found in this study.

Table 2. Reasons given for equipment or adaptations not being used.

Item	Reason for non-use
Fixed shower seat	'When it is wet I feel that I am going to slip off' (Respondent 10)
Bath seat	'Disadvantage to using the seat is that I can't immerse myself in the water this way, keeping warm is difficult even with the heating on' (Respondent 48)
Bath board	'Sitting on this to bath is all wrong, you wash the floor more' (Respondent 50)
Over-bath shower	'I prefer a bath – I feel more secure' (Respondent 44)
Grab rail	'Reason – poorly positioned' (In-depth respondent 1)
Grab rail	'Used as towel rail' (In-depth respondent 2)

Two grab rails were not being used, both of which were provided as part of two separate level access shower adaptations provided by Disabled Facilities Grants. In the first example the user had two grab rails fitted as part of her shower adaptation. The user had requested one grab rail only, but as two rails had been specified on the builder's schedule of work the surplus rail was fitted as a towel rail as neither the builder nor user could find a suitable position to install it. In the second example the grab rail was installed without consultation with the user, and was fixed in an impractical position.

Other studies have found non-use of grab rails to be a problem and have provided some reasons for this (Pendleton, 1985; Clemson & Martin, 1996; Hoffmann & McKenna, 2004). Findings by Hoffmann & McKenna (2004) found that grab rails were not used because they had been provided but were never required by the user. This suggests that perhaps grab rails are provided based on the assumption that if they are fitted then the user will automatically use them. A study by Sveistrup *et al.* (2006) found that even if grab rails are provided, if the user doesn't perceive that they need them they will not use them.

Bath and shower boards help people to get in and out of the bath and can be used to sit on for washing or showering (Mackey & Nanocarrow, 2006). Their use, however, can make it more likely that water spills over the edge of the bath (Pain, 2003) because the shower curtain cannot be tucked inside the bath so easily. One participant did not use their bath board because of the volume of water ending up on the floor. This may be difficult for the user to clean up and if the flooring becomes slippery when wet, this obviously increases the risk of slips, trips and falls for the user (Hall, 2003). Not being able to cope with water spillage was noted by Medical Devices Agency (2002) in relation to shower facilities, which may prevent their use.

Other studies have found non-use of bath boards to be a problem (Pendleton, 1985; Wielandt *et al.*, 2001; Hoffmann & McKenna, 2004). In particular Pendleton (1985) found high numbers of bath boards not being used, of which 72% of these were never used. The author, however, does not elaborate further on possible reasons for their non-use.

The importance of training so that equipment is used safely and effectively has been highlighted in the literature (Schemm & Gitlin, 1998; Eldar & Iwarsson, 2001). The lack of training on how to use the equipment was found to be a reason for non-use of bath boards in a study by Wielandt *et al.* (2001). Whilst one of the interviewees in this study was using a bath board as a seat for showering, she was having difficulty transferring in and out of the bath as she had not been shown how to use the bath board for this. This example illustrates the importance of providing users with some form of practical training in how to make the most of the equipment, findings confirmed by Chiu & Man (2004), in which training in the use of bathing equipment improved usage rates.

One bath seat was not being used because the user could not immerse themselves fully in the bath and therefore felt cold. This type of problem may not be confined to this type of equipment, as showering without adequate heating, either in a stand-alone facility or over the bath, can be problematic because of the cold (Medical Devices Agency, 2002).

There appears to be very little literature which relates to the use of bath seats, mainly because the term is used ambiguously (Clemson & Martin, 1996; Mann *et al.*, 1996). Therefore it is not clear whether these results can be drawn upon. Pendleton (1985) found that non-use of bath seats was a particular issue and those that were not being used were due to the user's needs changing.

One participant reported that she was not using her over-bath shower as she was washing using an alternative piece of equipment (bathlift). In this case the over-bath shower was already in the property prior to the interviewee moving in.

With the exception of Bowring (2007) non-use of over-bath showers is not reported in the literature. This may be due to few being fitted by the Disabled Facilities Grants (Pain, 2003). For many older people bathing is a preferred option. Parkes (1993, cited in Pain *et al.*, 2003) found that 62-71% of older people preferred to bathe, therefore this reason for non-use of the over-bath shower is not an uncommon one. However, trends are changing as people are recognising that showers can offer a quicker and safer alternative for many (Hill, 1996; Kimbell, 1999; Medical Devices Agency, 2002) and in this study 18 of the participants were showering rather than bathing.

Two items were not being used for their intended purpose, one was a bath seat being used as a stool and the other a grab rail being used as a towel rail. This suggests that the items were deemed unsuitable by the user for their intended purpose.

Factors supporting use

The majority of studies generalise their findings across a range of 'bathing' or 'showering' equipment or adaptations. There are only a handful of studies which focus on use of specific items such as showers (Pain, 2003), grab rails (Lockett *et al.*, 2002) or even long-handled sponges (Rogers *et al.*, 2002) and which detail the reasons for their use. The most commonly used items in this study were the fixed shower seats with arms, grab rails and level access showers.

This study identified a variety of reasons for use of a fixed shower seat with arms, shown in **Table 3**.

There were 10 respondents who provided reasons for using level access showers; all these reasons related to its ease of use since there was no step into the shower, therefore nothing to trip over. These findings were similar to the users of level access showers studies by Pain (2003) and Adams & Grisbrooke (1998).

Table 3. Reasons provided for use of fixed shower seat with arms.

Reason for use	Frequency
Increase safety	3
Support	2
Helpful	1
Aid washing	2
Practical reasons	2

I wouldn't feel safe [referring to a shower stool without a back rest].

(Respondent 1)

Table 4. Reasons provided for use of grab rails.

Reason for use	Frequency
Support to stand or get into shower	6
Aid getting up from seat	1
Reduce risk of falling/ slipping	5
Transferring into the bath	1
Support	3

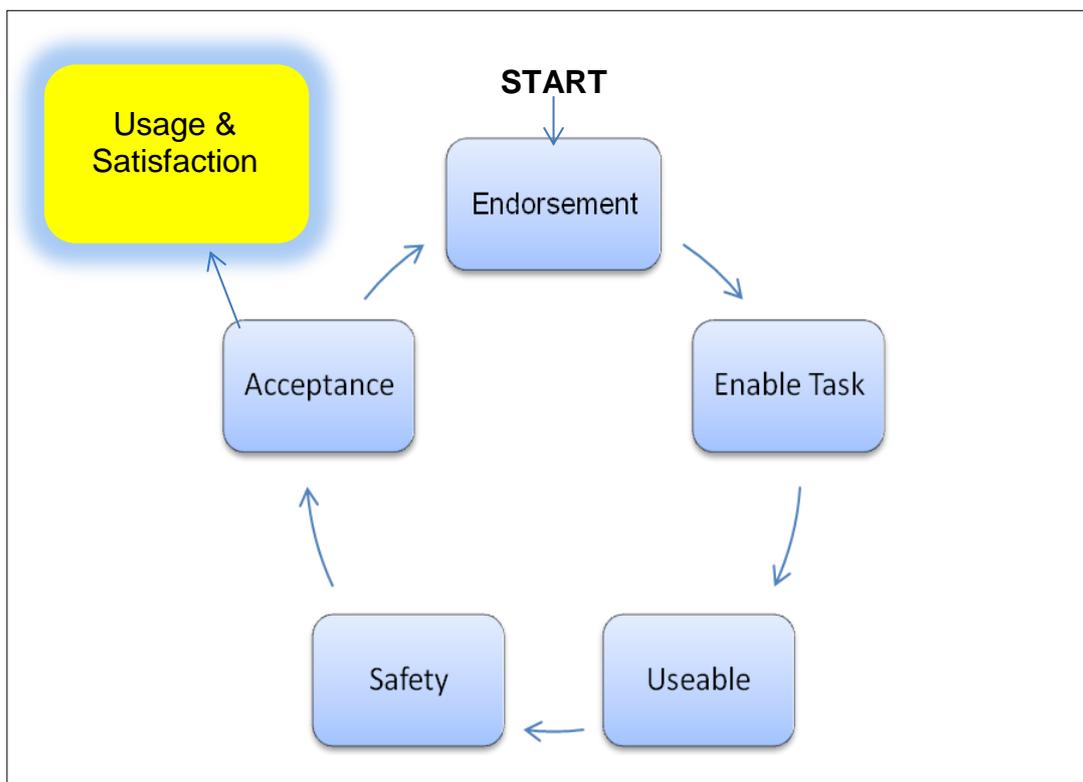
They [grab rails] help steady me, I am reassured that I won't slip.

(Respondent 27)

Grab rails were used by those who showered and those who bathed; **Table 4** shows the reasons for use.

Other studies have found that positioning of grab rails is an important determinant in their use (Clemson & Martin, 1996; Heywood, 2001; Sveistrup *et al.*, 2006). Sveistrup *et al.* (2006) explored the optimum positioning and numbers of grab rails required to assist with getting in/out of the bath and concluded that the ideal number of grab rails required was two. There is no similar data on use of stand-alone showers and this study found that of the two interviewees using shower adaptations, both used grab rails located very differently. The Medical Devices Agency (2002) suggest that a combination of an oblique rail beside a seat, a vertical rail beside the shower head riser and a horizontal rail for holding whilst standing are common locations for grab rails in showers.

Clemson & Martin (1996) found that satisfaction was determined with the positioning of the participants' grab rails according to their height, angle and position. Satisfaction was high, ranging between 93-100% for bath rails and 82-98% for shower rails. These high satisfaction rates accorded with those found in this study.

Figure 4. Factors that influence equipment and/or adaptation use and satisfaction.

In order to speed up delivery of services and manage demands many councils with adult social services responsibilities and Housing Associations are offering 'fast-track' services for items such as grab rails where users can arrange to have these fitted without a visit from an OT (Hampshire County Council, 2010; College of Occupational Therapists, 2006). This idea of self-assessment may work for the majority of individuals, but not for all. Sveistrup *et al.* (2006) found 14% of their participants were unable to visualise or place where they needed their grab rails. This supports the findings of this study which suggest that there are still large numbers of users who find difficulty pinpointing where their grab rails are needed.

A number of elements are of importance in determining whether equipment and/or adaptations are used and ultimately how satisfied the user is with them. **Figure 4** illustrates how these elements might link together as a process.

Should this 'process' be interrupted because a particular aspect cannot be met or overcome then the equipment and/or adaptation risks not being used and the user may experience dissatisfaction, as use and satisfaction appear to be closely related.

Discussion and conclusions

Endorsement

Awareness and availability of equipment and adaptations is increasing, however some service users do not feel in a position to articulate their preferences and exercise their choices - a key aspect of personalisation (Foster *et al.*, 2006). For many people recommendations and practical expertise offered to them by professionals are of utmost importance (Steel & Gray, 2009), especially when this is considered along with the sense of powerlessness which can result from complex and confusing processes (Hardy *et al.*, 1999), which are well documented in relation to

the Disabled Facilities Grant process (Carlton *et al.*, 2001; Awang, 2002; Nord *et al.*, 2009). Adams & Grisbrooke (1998) noted willingness of builders to provide choice when installing shower adaptations. Tanner *et al.* (2008) found that as long as the users had perceived an active role in important aspects to them, then this contributed towards their satisfaction with their adaptations.

Task enabling

All participants viewed using their equipment and adaptations positively, enabling them to carry out the tasks of bathing or showering that they would otherwise be unable to do (task-enablers) and were necessities, views shared by the participants of Pettersson *et al.* (2007) study. It was important that the items they were provided with met the need for which they were originally intended; this was also an important factor in other studies (Clemson & Martin, 1996; Wielandt *et al.*, 2006). Equipment and adaptations are also commonly used to overcome functional limitations (Wielandt *et al.*, 2006; Häggblom-Kronlöf & Sonn, 2007) and to overcome difficulties experienced as a result of arthritic conditions.

Usability

Comments (n=5) were made relating to not having enough space for items or preferring items which could be folded up in the instance of shower seats or the practicality of cleaning and comfort. Other research has found that durability is an important factor in determining usage (Clemson & Martin, 1996; Wielandt *et al.*, 2006).

Häggblom-Kronlöf & Sonn (2007) described the practical aspects of people's experiences of using equipment and adaptations on another continuum, with experiences ranging from usable to inappropriate and essential to cumbersome. Most of the interviewees felt that having enough space was important which supports findings by Tanner *et al.* (2008). Space was an issue for one of the interviewees using a bathlift who found it cumbersome and bulky in the bathroom. However, this was outweighed by being able to keep clean and soak in the bath, suggesting her viewpoint would have been more towards the cumbersome end of Häggblom-Kronlöf & Sonn's (2007) continuum.

Another important factor was ease of use of items, a finding also reported by Clemson & Martin (1996) and Wielandt *et al.* (2006). Seale *et al.* (2002) recommended the importance of user involvement within the design and development of equipment and adaptations to maximise effectiveness and usability.

Two comments were made about the aesthetics, by people pleased with the appearance of their adaptations which demonstrated that adaptations do not need to look clinical (Kimbell, 1999). Other studies have found that pleasing aesthetics are important (Tanner *et al.*, 2008) and aesthetic appeal influences use (Wielandt *et al.*, 2006). In contrast, the findings of this study, particularly in relation to the shower adaptations, mirrored results from Steel & Gray (2009) in which it was found that aesthetics did not influence usage. Adams & Grisbrooke (1998) also reported on satisfaction towards the appearance of level access showers and Heywood (2001) reported that 95% of participants were satisfied with the way their minor adaptations looked. The results from this study found that all the interviewees were happy with the basic equipment and adaptations which were provided for them.

Safety

Increased safety was the most frequently reported reason for using equipment and adaptations, making them feel more secure and reducing their risk of falling.

In contrast a small number of respondents felt that if the equipment or adaptations made the task unsafe, this could result in the item not being used.

It is common for some elderly and disabled people to worry about falling (Legters, 2002) with the prevalence and risk of falls being well documented (Department of Health, 2009). Three of the interviewees had reported having a fall in the past. Whilst some participants were not worried about falls, others were clearly concerned about falling and subsequent injuries and so had implemented several strategies to prevent falls including the use of equipment, adaptations and behavioural adaptation such as 'taking care' (Kruse *et al.*, 2010) or placing towels on the floor or seat surfaces. All acknowledged the role that equipment and adaptations could play in the prevention of falls, even if they were not directly concerned themselves. The preventative function of equipment and adaptations within OT interventions is documented in the literature (Cumming *et al.*, 1999; Clemson *et al.*, 2008; Monaco *et al.*, 2008) with commonly cited reasons for using equipment and adaptations including feeling secure, 56%, (Hägglom-Kronlöf & Sonn, 2007), 62% (Heywood, 2001) and 97% feeling safe (Medical Devices Agency, 2002).

Acceptance

Research has confirmed that users are receptive to equipment and adaptations (McCreadie & Tinker, 2005), particularly where they can see it improves quality of life and alleviates safety problems (Heywood, 2001; Roelands *et al.*, 2002). Therefore they may alter their routine to showering from bathing (Pain, 2003). Adaptation to or acceptance of disability plays a major role in the determination of equipment and adaptation use (Pape *et al.*, 2002). Therefore this could suggest that the interviewees had accepted their need for help from equipment and adaptations. For some it enabled them to exert some control over or a way of coping with their situation and condition (Hill *et al.*, 2009), although some were grateful to receive any help at all (Heywood, 2001) and felt lucky and happy to use them which represented the 'pleasant' end in a continuum of people's experiences of using equipment and adaptations, developed by Hägglom-Kronlöf & Sonn (2007).

Lund & Nygård (2003) identified that types of users could be defined according to the weighting they place on the desirable and undesirable consequences of using equipment and adaptations. They found that some users were more likely to find fault with things than others and end up discarding items.

Summary

It is hoped this article has raised awareness regarding the broad range of meaning and experiences users have towards their use of equipment and/or adaptations for bathing or showering and of the complexity of the issues which surround their use.

OTs have an important role in the successful uptake of equipment and adaptations by providing choice, sharing expertise and problem-solving skills to enable users to find the right equipment and/or adaptations which supports their bathing or showering needs. This research suggests that equipment and adaptations need to be practical, fit for purpose, simple to use and safe for them to be accepted, but, ultimately the user needs to be receptive to task modification and equipment and/or adaptation use.

This study along with other studies (Sainty *et al.*, 2009; Chamberlain *et al.*, 2001) recommends that equipment and adaptations are followed up with users to identify items not being used, whether alternative equipment and/or adaptations are needed and to address any difficulties or concerns that have become apparent after their use for a period of time.

Future research would be useful in this field to test the proposed 'Factors that Influence Equipment and/or Adaptation Use and Satisfaction' model.

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