

Occupational Analysis; activity analysis of toileting

Product End User Suitability Report

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Toileting is one of the most intimate personal activities of daily living a person needs to engage in. When living with illness or disability a person's occupational participation and performance when toileting can be impacted and therefore solutions like the Closomat wash dry toilet and Aerolet may help by promoting independence whilst maintaining dignity and privacy.

If a user is having difficulty accessing toilet facilities, solutions can be found by altering their approach to the task or adapting the environment.

“Using a client centered approach through occupations enable the service user to participate in activities of everyday life. This is achieved by working collaboratively with the service user, family and carers to enhance their ability to engage in occupations they need to, want to, and expected to do. This can be done by modifying the occupation or the environment to better support their occupational engagement” (WFOT, 2012).

Occupational analysis is a recognised skill of the profession (Duncan & Townsend, 2012).

Activity analysis of an individual using a toilet; the user must coordinate a complex combination of physical and cognitive tasks.

STEPS INVOLVED PRIOR TO USING A TOILET	OVERT COMPONENTS (WHAT CAN BE OBSERVED)	COVERT COMPONENTS (WHAT CANNOT BE OBSERVED)
The first step in the process of using a toilet, is body awareness.		The user will understand the resulting sensations of needing to eliminate
The ability to picture actions (symbolic thought), plan (problem solve) and our memory, begin to develop around one years old (around the time we traditionally begin to learn how to use a potty.		The user will be able to recall from memory the correct steps/sequence involved in using the toilet.
The body's motor system (nerves and muscles) control movement		For the user to carry out the required movements, messages are sent to the brain (motor cortex) from there these messages travel to the brainstem, spinal cord, nerve cells and finally to the relevant muscles
A body has three planes of movement, sagittal (forwards/backwards) frontal (side to side) and horizontal (rotation)		
The user will stand and walk to the bathroom, navigating objects such as stairs and doors along the way.	<p>Gross motor skills -</p> <ul style="list-style-type: none"> • flexion, extension in the sagittal plane. • Abduction/adduction in the frontal plane • Medial and lateral rotation in the horizontal plane <p>The user will co-ordinate their body's movements. These movements assist the user to stand, walk and sit when using the toilet.</p> <p>The users muscle tone will be high enough to withstand gravity but low enough to allow selective movements.</p>	The vestibular system will help maintain their balance throughout all gross movements.
The user will navigate the environment without bumping into objects and will be	<ul style="list-style-type: none"> • Gross motor skills • Coordination • Balance 	<ul style="list-style-type: none"> • Perception assists the user in judging the

able to reach successfully for objects such as door handles.	<ul style="list-style-type: none"> • Fine motor skills - Objects and tools must be held in a particular orientation for their functional use i.e. Unfastening buttons, pulling clothing down/up 	<p>distance between objects and themselves (they know where their body is in relation to space.</p> <ul style="list-style-type: none"> • Sequencing
The user will be recall from memory the location of the bathroom or able to read and follow signage		<ul style="list-style-type: none"> • Long term/short term memory • Visual (signage)

STEPS INVOLVED WHILE USING A TOILET	OVERT COMPONENTS	COVERT COMPONENTS
The user will identify the toilet as opposed to the wash basin and walk over.	Gross motor skills Coordination Muscle tone Balance	Object recognition (visual) Sequencing
The user will position themselves with the toilet behind them, lower clothing items and seat themselves into the correct seated position on the toilet pan.	Gross/fine motor skills Coordination Sagittal movements Muscle tone Balance	Memory Visual – object recognition Sequencing
Time will be required for muscles to relax to begin the process of voiding (this varies for each user)		

STEPS INVOLVED AFTER USING A TOILET	OVERT COMPONENTS	COVERT COMPONENTS
The user will locate the toilet paper, take the required number of sheets and wipe then place the tissue down into the toilet pan	Gross/fine motor skills Coordination Muscle tone Balance	Visual – locating the toilet paper Tactile – touch Perception Sequencing Proprioception- correct pressure when wiping.
The user will stand, pull clothing back into place, fasten and turn to flush the toilet.	Gross/fine motor skills coordination Muscle tone Balance	Memory Sequencing Perception Tactile (touch)
The user will then move to the wash basin to wash their hands, dry and vacate the bathroom.	Gross/fine motor skills Muscle tone Coordination	Tactile Memory Sequencing

	Balance	
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(Tyldesley & Grieve, 2009)

Socio- Cultural considerations.

Toilet talk can be taboo, the word “toilet” can be considered in some cultures as dirty, whereas asking to use the restroom or bathroom is considered more appropriate. Consideration must to be taken in to account, that every country has its own social and cultural norms when it comes to toileting and each user has their own habits, values and routines (LaVine, 2018)

Evidence base.

According to the NHS (2018) falls are a common occurrence in those aged over 65 or with those with a long-term health condition and also highlight that falls are most likely to happen in areas such as the bathroom.

Falls have been linked to a loss of confidence, a person becoming withdrawn and a loss of independence and the estimated cost to the NHS is £2.3bn per year (NICE, 2013; The Kings Fund, 2013).

The average projected cost of a fall per person is £189,222 with 1 in 3 people over the age of 65 being at risk of a fall (Kings Fund, 2013). Once a person has fallen, they are more likely to fall again within the same year (Kings Fund, 2013) and the hospitalisation costs of a fall are not as high as the aftercare and subsequent treatment of the fall (Kings Fund, 2013).

Reducing or eliminating care cost through the provision of equipment.

A care package costs approximately £15 per hour – that’s nearly £11,000 per year if you have a carer for 14 hours a week to assist with toileting and if you need full-time care during the day, costs start at £30,000 per year (Money Advice Service, 2018).

Social costs of illness

There is a growing interest in incorporating informal care in cost-of-illness studies as a relevant part of the economic impact of some diseases with the average hourly unit cost being £11.43 per hour. (Oliva-Moreno, Trapero-Bertran, Peña-Longobardo del Pozo-Rubio, 2017).

Cost effectiveness analysis.

Closomat Palma and Aerolet one off cost is; £5,735.

A 10-year service and maintenance (1 year warranty then 9 years at £195 per unit) plan for the Closomat Palma and Aerolet costs £3,510.

Care package covering 14-hours per week at £15 per hour cover 10 years is £109,200.

Over a ten year period based on these assumptions the Closomat Palma and Aerolet would save social care budgets £99,690.

Based on the same assumptions the Closomat Palma and Aerolet cost versus a 14 hour care package would pay for itself in under 9 months.

For more information on the technical specifications or to request a free no obligation quotation please visit;

www.closomat.co.uk

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