abstract

Many older adults have difficulty bathing. Those unable to bathe are more likely to need formal home care and to be admitted to long-term care than those who can bathe without help. Disability with bathing function is complex, involving multiple subtasks; inability to perform those subtasks has many attributable causes. Bathing disability can be remediated through timely diagnosis and prescription of appropriate assistive devices and adaptations to the home bathing environment. Clinicians have an important role in the diagnosis of bathing disability, and collaborative planning of bathing remediation with patients, caregivers, and allied health providers is key.

Key Words: activities of daily living, assessment, disability, assistive devices

The Clinician’s Role in the Treatment of Bathing Disability

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Significance of Bathing Function

For centuries, people have indulged in baths for social, pleasurable, and religious reasons. In most societies, bathing is considered a routine and essential activity. Physiologically, bathing displaces dead skin and washes away accumulated foreign matter that might otherwise lead to skin irritation, rashes, and infection. Of equal importance is that bathing allows people to maintain acceptable social standards of cleanliness, both appearance and olfactory, and to refresh, revive, and relax through the washing process. As one ages, however, the bathroom can become a daunting, hazardous environment and bathing a difficult and time-consuming ordeal. Bathing-related difficulties can affect the safety and independence of older adults and may be markers of potential future morbidity. For all these reasons, clinicians should consider the bathing function of their patients and recommend interventions to prevent or remediate bathing disability.

Among community-living older persons, disability in bathing is highly prevalent and is a strong predictor of morbidity and mortality. About one-quarter of community-dwelling persons over 70 years of age were found to have some degree of difficulty with bathing, and 4.6% to 6.9% were considered totally dependent. Furthermore, bathing disability has been identified as an important predictor of disability in other activities of daily living (ADLs) and is associated with an increased likelihood of admission to acute care hospitals and skilled nursing facilities. From a public policy standpoint, bathing disability has been found to be the primary indication for publicly funded home care services among older people in the United States.

Consequences of Bathing Disability

Bathing, defined simply, is the washing and drying of one’s entire body. These tasks, however, consist of several complex, sequential subtasks, each with distinct physical and cognitive requirements. The subtasks of bathing include obtaining and using supplies, taking off clothes, turning on the water and adjusting the temperature, getting into the bathing position, washing the whole body, leaving the bathing position, drying the whole body and getting dressed. The delineation of bathing into these subparts is pertinent to analyzing bathing disability in community-dwelling older persons because disability typically involves various combinations of these component subtasks and, for most older individuals, more than one attributable cause. The attributable causes of bathing disability are many and include a variety of conditions and complaints (see Table 1). Complicating matters further, most older adults describe more than one attributable cause. For example, one may cite that balance problems are the primary reason for avoiding bathing but the clinician
A study by Gitlin demonstrated reductions in health care costs, and reduction in the need for home-based nursing and institutional care. A study by Gitlin et al. documented the effectiveness of such adaptations in a survey of 75 clients who received 202 bathing devices as part of a bathroom modification program. The vast majority reported that the equipment made the bathing task easier to carry out. These promising results warrant additional trials to more rigorously evaluate the effectiveness of bathing adaptations across the continuum of disability.

While the available research on bathing disability has focused on the use of environmental adaptations, interventions aimed at increasing personal capabilities would likely complement those directed at modifying the environment. In regards to prevention of falls in community-dwelling older persons, significant evidence already exists to strongly support the effectiveness of several “intrinsic” interventions such as exercise to reverse impairments in muscle strength, balance, and gait; provision of behavioural instructions; and adjustment of medications. Similar “intrinsic” interventions—both with or without the use of complementary environmental adaptations—would likely be equally beneficial for individuals already experiencing bathing disabilities and therefore deserve further investigation.

Why Are Environmental Modifications Infrequently Made?

Environmental adaptations for bathing are both necessary and beneficial but are clearly not installed as frequently as they could be. A study by Naik and Gill examined the prevalence and utilization of environmental adaptations for bathing among 566 older adults in the community at large and found that the prevalence of most environmental adaptations for bathing was less than 50%; that prevalence was only modestly greater among participants with bathing disability than those without. Furthermore, individuals who had difficulty without dependence to carry out. These promising results warrant additional trials to more rigorously evaluate the effectiveness of bathing adaptations across the continuum of disability.

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**Table 1: Self-reported Reasons for Bathing Disability by Degree of Importance**

<table>
<thead>
<tr>
<th>Reason Cited</th>
<th>Percentage of Respondents</th>
<th>Overall</th>
<th>Primary Reason</th>
<th>Secondary Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjective fear of falling</td>
<td>26</td>
<td>23</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Objective problem with balance</td>
<td>25</td>
<td>28</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Lower extremity arthritis</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Fatigue, weakness, or dyspnea</td>
<td>14</td>
<td>13</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Upper extremity arthritis</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Back pain</td>
<td>5</td>
<td>5</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Memory problem or confusion</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Vision problems</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Stroke with weakness</td>
<td>11</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Other reasons</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Source: Adapted from Naik et al., 2004.

Environmental Adaptation

According to conceptual models of the disablement process, disability occurs when there is a gap or mismatch between personal capabilities (e.g., balance, muscle strength, self-efficacy) and environmental demands. Safety issues relevant to bathing and older adults range from the loss of key physical abilities to poorly designed bathroom equipment. The traditional design of the bathroom often fails to meet the needs of the aging population and does not account for an individual’s compromised functional capabilities as he or she undergoes age-related changes. For example, many older persons have limited reach and poor grip strength. These problems are exacerbated by the location of controls; many older adults have problems reaching fixtures and grasping them. More commonly, poor balance increases their chances of slipping and falling when entering or leaving a slippery tub or shower. Environmental adaptations for bathing, including home modifications and assistive devices, may limit this gap between capabilities and environmental demands by enhancing one’s ability to perform specific subtasks (e.g., a transfer bench to facilitate transfers to and from the bathing position) or by reducing environmental risks (e.g., abrasive strips or grab bars to reduce falls). Table 2 provides a list of environmental adaptations that have been used and tested in observational and clinical studies and their potential utility with bathing.

Adaptations directed at the bathing environment may delay or even prevent the progression of disability. A series of studies that systematically assessed and implemented bathing adaptations demonstrated reductions in health care costs, and reduction in the need for home-based nursing and institutional care. A study by Gitlin et al. documented the effectiveness of such adaptations in a survey of 75 clients who received 202 bathing devices as part of a
current methods for assessing bathing disability in older persons are likely insufficient. Prior research has indicated that clinicians do not typically assess functional status, let alone distinguish among types of disability. Furthermore, the findings of a cross-sectional study of older persons indicate that simple yes/no assessments do not capture the inherent complexity of bathing disability and, hence, may be inadequate for informing the development of preventative and restorative interventions.

Second, environmental adaptations are not routinely prescribed or recommended in most health care settings, perhaps because of limited reimbursement and access to professional services or agencies that provide assistive devices and install home modifications for bathing. Finally, older adults and their families infrequently request environmental adaptations for many reasons. Reasons may include limited resources, lack of awareness of their potential benefits, or the perceived stigma of using assistive devices.

**What Is the Clinician’s Role?**

Clinician involvement in the assessment of bathing function and prescription of appropriate interventions may be a key facilitator to the improved installation and use of environmental adaptations for bathing. Given the prevalence and epidemiology of bathing disability among older adults, basic screening of bathing function should be routinely integrated into an evaluation of a patient’s overall functioning. The office visit provides an ideal setting for obtaining information regarding an individual’s functional status and to identify declines in the ability to bathe independently via two simple questions for the patient and/or caregiver. To determine whether an individual is dependent, a physician might ask, “At the present time, do you need help from another person to wash and dry yourself?” Those persons who do not require personal assistance should be asked, “Do you have any difficulty with bathing?” Individuals who report dependence or difficulty can then be asked about specific bathing subtasks. By identifying deficits in particular subtasks, a clinician may recommend tailored adaptations to assist the individual in overcoming his or her specific disability. If possible, a clinician should recommend a home visit by an occupational therapist to assess the individual’s bathing facility and to make any adjustments to the adaptive device to address unique environmental challenges.

### Key Points

- For older adults, bathing can be a difficult and time-consuming ordeal and the bathroom itself a hazardous environment.

- Bathing consists of complex subtasks, each with distinct physical and cognitive requirements.

- Bathing disability has been identified as an important predictor of disability in other activities of daily living (ADLs) and is associated with an increased likelihood of admission to acute care hospitals and skilled nursing facilities.

- Studies that systematically assessed and implemented bathing adaptations have demonstrated reductions in health care costs as well as in the need for home-based nursing and institutional care.

- The office visit is ideal for identifying declines in functional status and can also be used to pinpoint specific disabilities with bathing via simple questions for the patient and/or caregiver.

- Research on bathing disability has focussed on the use of environmental adaptations, but interventions aimed at increasing personal capabilities would likely complement those directed at modifying the environment.
In consultation with the therapist, the clinician can prescribe suitable bathing aides and direct patients to professionals who can instruct them on the proper installation and use of these interventions to increase their proficiency and confidence with bathing. This intervention should also continue beyond the doctor’s office. Relatives and caregivers can be involved to ensure the continuing use of these aids once the patient returns home. Routine assessment of bathing disability by clinicians would encourage older adults to monitor for deficits as they arise and to approach health care providers for assistance in obtaining the adaptations necessary to address these deficits.

**Conclusion**

For community-dwelling older persons, disability in bathing is prevalent, involves multiple subtasks, and is attributable to an array of physical and psychological problems. Preventive and restorative interventions will need to account for the inherent complexity of the bathing task. Fortunately, effective interventions exist to assist bathing-disabled individuals to overcome and potentially reverse disability in this critical activity of daily living. Clinicians can play an integral role in rehabilitating patients with bathing disability through routine screening, communication with the patient and caregivers, identification of particular subtask difficulties, and the prescription of both appropriate environmental and intrinsic interventions in patients identified as bathing disabled.

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**References**