

The Importance of Toileting Evaluation in Fall Reduction of the Older Adult Population Fall Risk and Toileting in the Older Adult Population



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Abstract

Identifying fall risk related to functional participation in daily tasks and safety awareness is a concern of healthcare providers and caregivers to those in the geriatric population. This article discusses relevant research and proposes that further investigation needs to be completed identifying require skills of toileting and contributing factors to fall prevention intervention. There is currently a lack of standardized assessments and research showing rehabilitation intervention during toileting and the impact on safety and fall risk.

Keywords: Fall risk; Toileting; Rehabilitation; Safety; Intervention

Abbreviations: SCA: Melville-Nelson Self-Care Assessments; TQ: Toileting Questionnaire; ADL: Activities Of Daily Living

Introduction

Many healthcare providers working with the geriatric population try to optimize occupational performance by addressing deficits in physical health. A challenge with the geriatric population that continually presents itself is the ability to engage in all aspects of occupational performance and the impact on safety and falls. One aspect of older adult's occupational performance that can lead to a fall risk is toileting. The physical and cognitive demands involved while a person is toileting are often overlooked by healthcare providers Agular E et al. [1]. Based on this information, this article starts identifying how are rehabilitation professionals addressing individual aspects of toileting and what is the greater impact on fall prevention and functional independence.

Based on an extensive review of standardized assessments, it was found that there is a limited number of tools that incorporate toileting tasks. Furthermore, the authors were unable to find a single standardized assessment that solely identified toileting skills in the adult population. The following assessments were identified as having a section related to toileting or toilet transfers.

- a) Barthel Index
- b) Bristol Activities of Daily Living Scale
- c) Katz Index of ADL

- d) Klein-Bell Activities of Daily Living Scale
- e) Melville-Nelson Self Care Assessment

Of these 5 scales, the Melville-Nelson Self-Care Assessments (SCA) focuses on the evaluation of seven major areas of self-care and is highly recommended based the functional components that align with skills related to toileting. These areas include bed mobility, transfers, dressing, eating, toileting, personal hygiene, and bathing. The Melville-Nelson SCA has a predictive validity of caregiver time and support after discharge Nelson et al. [2]. The Melville-Nelson SCA toileting scale ranks clothes management (pants up, knees up, hips up, fasten), Cleanse (grasp, clean, dispose, flush), transfer (Position, lift, ½ way, position), pad and brief management, colostomy, and catheter management. Each section is rated as independent, set-up assist, supervision, and physical assist. This scale quantifies multiple aspects of ADL participation and provides a concrete measure to gauge gains in occupational performance.

The Melville-Nelson SCA can help rehabilitation professionals better address treatment planning and therapeutic interventions related managing toilet transfers, clothing management, and perineal care with the ultimate goal of patient safety and decreasing fall risk. There are many opportunities for rehabilitation professionals to dive deeper into the evaluation and intervention of toileting related to fall prevention with the

geriatric population. Based on a review of current evidence based interventions, there are several common notable themes identified by researches. First, the environment in which individuals are toileting impacts performance. Environmental barriers pose a threat to body mechanics and require older adults to navigate through the space by turning, leading to a higher fall risk Pati et al., [3].

Barriers to toileting include not only physical but environmental barriers. These barriers can impact performance by "offending postures include bathroom configuration, intravenous pole, door, toilet seat height, flush, grab bars, over-bed table, and patient chair Pati et al. [3]." It was suggested that designing and adding adaptive equipment to the space can help individuals avoid motions that impeded performance as well as limit turning. Further research is investigating the Toileting Questionnaire to identify the impact of physical disability and toileting. Based on Bondoc, Bambara [4] findings, the Toileting Questionnaire (TQ) had a moderate correlation between with the Barthel Index and performance on the TQ ($p = .001$). Bondoc, Bambara, Peat, and Duperre support that there is little research on toileting within the geriatric population (2016). The researchers focused on preferences, experiences, and practices of toileting with women in the geriatric population.

The interaction of home safety and decreasing fall risk has been established by using functional assessment tools to better predict ADL performance in the home can help identify if a patient is ready for discharge. When a patient starts to plateau in their physical rehabilitation, achieving the highest level of function may still leave a patient requiring some level of physical support. A team of researchers completed caregiver interviews using the I-HOPE assessment to identify barriers in home safety and function Keglovits Somerville, Stark [5].

Based on the results, the researchers concluded that the physical ability to complete tasks such as toileting was also impacted by how comfortable individuals and caregivers were when completing the tasks or providing supports to complete the task. This concept generalizes to functional interventions in rehabilitation facilities. Toileting and perineal care can be a sensitive intervention that the patient has to be willing and comfortable to participate in. This barrier should be addressed by rehabilitation professionals when formally assessing toileting and fall risk with the geriatric population [5,6].

Conclusion

Recommendations of occupational and physical therapists include using a holistic assessment approach with targeted interventions based on each disciplines scope of practice. As a team, OT's and PT's should evaluate the patient's comfort level when addressing the skills related to toileting and perineal care. Additionally, evaluating environmental barriers that will impede performance in the discharge location will allow therapists to better anticipate patient needs after discharge. Due to the limited number of standardized assessments related specifically to toileting, an OT should assess the patient's ability to complete LB dressing, functional transfers, sit to stand, perineal care, and safety. Use of the Melville-Nelson Self-Care Assessment is recommended researchers as one way ensure the diverse nature if toileting performance is assessed in quantifiable means. Physical therapy can assist with management of toileting when looking at mobility, core strength, safety, and turning. The use of the Timed Up and Go in addition to the 5 times sit stand test would complement therapeutic invention related to toileting and fall prevention.

Conflict of Interest

A conflict of interest for either author is not present.

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