

Functional Mobility, Employment and Safety Benefits of Seat Elevating Devices

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Abstract

Seat Elevating Devices (SEDs) allow vertical movement of the seat of a power wheelchair (PWC), so users can perform activities of daily living including transferring and reaching. RESNA's position papers on SEDs and the wheelchair provision process highlight the benefits of SEDs and the need for outcome measurement. The Functional Mobility Assessment (FMA) is a satisfaction measure to carry out specific tasks including transferring and reaching. The purpose of this retrospective study was to evaluate the relationship between use of SEDs on the FMA and uniform dataset (UDS) with a sample of 1,733 PWC users. Independent samples t-tests and Mann-Whitney U tests were used to compare total FMA and individual FMA items scores between those with and without a SED. A univariate linear regression model was used to control for confounding variables and determine if SEDs were a predictor of variance in FMA. Those with SEDs had significantly higher total FMA percentage score (mean = 76.7 ± 20.9) than those without SEDs (mean = 59.6 ± 24.7 ; $t=11.9$, $p<.001$). Those with SEDs had significantly higher reach ($U=99849.0$, $p<.001$) and transfer ($U=140587.0$, $p<.001$) scores. The functional, vocational, and safety benefits of SEDs should be considered when determining coverage for SEDs.

Status of Research Process: Study Completed.

Involvement of Assistive Technology Users: Participants were power wheelchair users.