

Factors Associated with Fear of Falling and Fall-related Injuries Among Individuals Using Wheelchairs and Scooters

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Among people who use wheelchairs/scooters (WC/S), falls are common. This study identified factors associated with an increased likelihood of reporting fear of falling (FOF) and fall-related injuries (FRI) among individuals who use WC/S. Research involving this unique population can inform fall prevention interventions provided by OTs/their interprofessional teams. This predictive analysis was a secondary analysis of cross-sectional, self-reported data from individuals recruited via support groups/social media who were ≥ 18 years old, had a history of ≥ 1 fall in the past 3 years, used WC/S for ≥ 1 year, and used a WC/S $\geq 75\%$ of the time. Two logistic regression analyses were conducted; dependent variables were FOF (yes/no) and incidence of FRI in the past year (yes/no), respectively. Key independent variables included in two regressions were demographics, history of falls in the past year, minutes on the ground after most recent fall, receipt of fall prevention education (yes/no), Hospital Anxiety and Depression Scale sub scores, type of primary mobility aid (power WC/ manual WC/ Scooter), use of multiple mobility aids (yes/no), number of years using a WC/S; the number of hours/ wk using WC/S, and home accessibility (very good to very bad). Among 156 participants, 96% (N=150) had a history of falls, 71.2% (N=111) had FRI, and 93% (N=145) reported FOF. FOF was associated with the incidence of ≥ 1 fall in the past year (OR= 17.75, P=.001); the model's discriminant ability was insignificant (P=.16). Higher risk of FRI was associated with higher anxiety (OR=1.153; 95% CI= 1.049-1.268; P= .003) and fewer hours/wk using WC/S (OR=.986; 95% CI, .976-.997; P=.012). The model's discriminant ability was acceptable (sensitivity =73%, specificity= 60%; Area Under the Curve = .69; P=.00). Findings impact practice by affirming the importance of addressing FOF among fallers and suggesting that addressing anxiety and frequency of WC/S use may prevent FRI among WC/S users.

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