Making Assistive Technology and Rehabilitation Engineering a Sure Bet

The Accuracy Of New Wheelchair User Predictions About Their Future Wheelchair Use

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ABSTRACT:

This study examined the accuracy of new wheelchair user predictions about their future wheelchair use. We used an existing database of 71 new manual wheelchair users with data obtained at baseline, 3- and 6-months to examine the specificity, sensitivity, positive and negative predictive value of user predictions about anticipated amount and locations of wheelchair use. At 3-months, the correlation between predicted and actual use was strong, with 90% of those who thought they would still be using the wheelchair still using it, and 60% of those who said they would not be using it indeed were not using the wheelchair. By 6-months the predictive utility diminished substantially. Only 70% of subjects accurately predicted their continued use, while only 50% correctly predicted they would not be using their wheelchairs. This study demonstrates the importance of better understanding the potential mismatch between the anticipated and actual patterns of wheelchairs use.

KEY WORDS:

Mobility Disability, Wheelchair; Self Help Devices, Predictive Model; Delivery of Health Care; Statistical Model; Prognosis

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ACKNOWLEDGEMENTS:

This work was supported in part by the Paul Beeson Faculty Scholar Program from the American Federation for Aging Research. This work also was supported in part by the National Institutes of Health, National Institute on Aging, Duke University Claude D. Pepper Older Americans Independence Center, Grant #2P60AG11268 and by the National Instituted of Disability and Rehabilitation Research, RERC on Wheeled Mobility, Grant #H133E030035-04.