(S68) MEASURING PHYSICAL FUNCTION IN MULTIPLE SCLEROSIS: EXTENDING THE PROMIS BANK FOR ASSISTIVE TECHNOLOGY USERS

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Background: Individuals with multiple sclerosis (MS) and other disabilities often use assistive technology (AT) to help with their mobility or in performing instrumental activities of daily living. However, many patient-reported outcome measures include items that are not appropriate for users of AT or items that do not adequately measure functioning of these individuals.

Objectives: The objective of this study was to ensure that the newly developed PROMIS Physical Function (PROMIS-PF) bank was appropriate and relevant to users of wheelchairs, mobility aids, and other AT. Methods: Interviews with panels of experts comprising physical therapists, occupational therapists, and physicians were completed to generate an operational definition of physical function for AT users. Next, PROMIS-PF items were reviewed by experts and categorized regarding relevance and appropriateness for users of AT. For instance, items that reference ability to walk or run were flagged as potentially inappropriate for wheelchair users. Items were revised and new items were generated to ensure that aspects of PF most relevant to users with disabilities were included. All new and revised items were submitted to several rounds of reviews by expert panels and individuals with disabilities. Results: Based on results, the candidate item bank was finalized and administered to over 600 participants, including over 274 with MS. A subset of unchanged PROMIS items was also administered for anchoring the subsequent Item Response Theory (IRT) calibration to the original PROMIS-PF metric. Expert review led to the addition of 53 new or modified items and identified 17 items that were inappropriate for AT users. Factor analytic results indicate that the final bank with 112 items is sufficiently unidimensional. Conclusions: Clinicians and researchers have voiced preference for availability of separate banks for measuring upper and lower body PF. Fifty-three items were identified for inclusion in an upper-body and 22 in a lower-body PF bank. New items will be added to the publicly available PROMIS bank. Items flagged as inappropriate for some users of AT will be maintained in the bank but would not be administered to specific populations.

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