Abstract Title: **Large-Scale Administration Of Shortened Versions Of The Prosthesis Evaluation Questionnaire - Mobility Subscale (Peq-Ms) And Activities Specific Balance Confidence Scale (Abc) In Persons With Lower Limb Loss**
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Introduction

Restoration of balance and mobility are key objectives of post-amputation rehabilitation and prosthetic prescription. Self-report instruments like the Prosthesis Evaluation Questionnaire (PEQ) and Activities Specific Balance Confidence Scale (ABC) are available to assess these clinically-meaningful domains, but are not commonly used in clinical practice or research. Shortened versions of the PEQ and ABC have been proposed to address practical and psychometric limitations associated with these instruments. Although these scales show improved psychometric properties, cross-sectional data is needed to help with interpretation.

Methods

Short-form versions of PEQ-MS and ABC were administered to lower limb prosthetic users via survey. Respondents were recruited via clinics, consumer magazines, list-servs, websites, and social networks. Selection criteria included 18+ years of age, ability to read English, unilateral lower limb amputation, traumatic or dysvascular etiology, and use of a prosthesis to ambulate. Population and subgroup (transtibial-trauma, transtibial-dysvascular, transfemoral-trauma, and transfemoral-dysvascular) summary scores were calculated according to developers' instructions. Differences among groups were tested with independent t-tests, corrected for multiple comparisons (alpha=0.0083).

Results

PEQ-MS and ABC scales were administered to 650 persons with lower limb loss (age, M=53, SD=14). Overall, respondents scored 33.8 (SD=10.4) on the PEQ-MS and 2.7 (SD=1.0) on the ABC. Persons with dysvascular, transfemoral amputations reported significantly worse mobility (M=25.6, SD=11.0, p=0.001) and worse balance (M=1.9, SD=1.0) than other subgroups. Conversely, persons with traumatic, transtibial amputations reported significantly better mobility (M=37.7, SD=9.4, p=0.000) and balance (M=3.0, SD=0.8).

Discussion

Mobility and balance are affected by level and etiology of amputation. PEQ-MS and ABC quantify this relationship and may be used to evaluate clinical interventions.

Conclusion

The PEQ-MS and ABC are designed to measure constructs of interest to lower limb prosthetic users. Means and variances from this large study may aid interpretation of PEQ-MS and ABC scores and encourage their use in clinical practice and research.