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PERFORMANCE TESTING IN PEOPLE WITH LOWER LIMB AMPUTATION: INTERVIEWS WITH PROSTHETISTS, PHYSICAL THERAPISTS, AND PHYSICIANS

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INTRODUCTION

A variety of performance-based tests are available to assess mobility in people with lower limb amputation (LLA)[1]. Selection of a specific test is likely to be guided by the clinical value of tasks patients perform; the space and equipment available to administrator the test; and/or the time required to set up, administer, score, and interpret the test results. The aim of this study was to collect information about the clinical value of performance tests, and the space, equipment, and time available to rehabilitation specialists who provide care to people with LLA (i.e., prosthetists, physical therapists (PTs), and physical medicine and rehabilitation (PM&R) physicians).

METHODS

Cross-sectional semi-structured telephone interviews were conducted to gather information about the type of performance tasks administered to people with LLA, the clinical environment in which tests may be administered, and the resources available (e.g. time, space, and equipment). A convenience sample of prosthetists, PTs, and PM&R physicians was recruited through investigators' professional contacts. Interviews were conducted by phone, recorded, and transcribed. An interview guide[2] was used to ask participants about tasks with clinical value; space, equipment, time available for administration; and general barriers or facilitators to performance testing. Qualitative data were reviewed for themes and quantitative data were tabulated to compare results across and within professional groups.[3]

RESULTS

Prosthetists, PTs, and PM&R physicians (n=8, 9, and 8, respectively) from 12 US states participated in the interviews. Walking (in parallel bars and the hallway) and moving from sit-to-stand were tasks used by all participants to assess people with LLA. Other tasks included standing (n=20/25), stair climbing (n=16/25), transfers (n=14/25), navigating obstacles (n=13/25), variable cadence walking (n=12/25), and single limb stance (n=11/25). Most participants stated that they had access to more than one room for patient evaluation and all participants had a corridor at least 25 feet long. The majority (n=8/9) of PTs had access to a therapy gym, whereas fewer physicians (n=5/8) and prosthetists (n=2/8) had access to larger indoor spaces. All participants reported that they had the equipment (e.g., stopwatch and tape measure) necessary to conduct timed or distance tests. Most (n=16/25) had a meter or yardstick that could be used to conduct select tests. Only about half (n=12/25) of the clinicians interviewed had a treadmill. Most physicians (n=5/8) reported they wished to spend 10 minutes or less on performance assessment, whereas the majority of prosthetists (n=5/8) and PTs (n=7/9) were willing to spend 21 minutes or more (Figure 1).

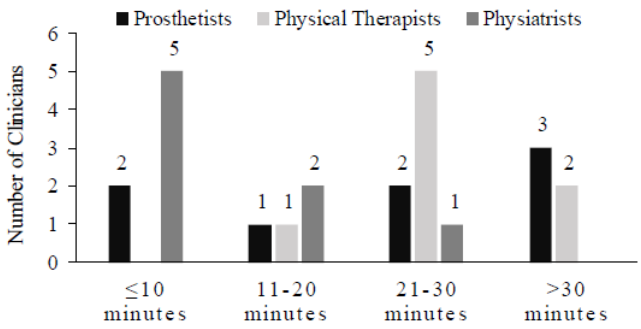

Figure 1. Maximum time clinicians reported to be willing to spend on performance testing during one appointment

CONCLUSION

Participants interviewed in this study identified a variety of factors that can promote or inhibit performance testing of people with LLA in clinical practice. Differences in space, equipment, and time resources available to different rehabilitation specialists may inform which tests can be conducted in which settings, or suggest the need for referrals when additional time, space, or equipment is necessary. Results of this study may also

inform development of new performance tests. Similarities in basic equipment and frequently used tasks imply that performance tests intended for use across disciplines and settings should include tasks with clinical value (i.e., sit to stand and walking) that require only basic equipment (i.e., tape measure and stopwatch).

SIGNIFICANCE

Knowledge of tasks with value and resources available to rehabilitation specialists can help improve selection, administration, and development of performance tests.

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DISCLOSURE

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