Should Occupational Therapy Choose a Single Functional Outcome Measure?

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This article was accepted for publication June 13, 1994.

THE ISSUE IS

Presently in rehabilitation, functional measures appear to have an unmatched popularity, both in terms of outcome research and in the development of a prospective payment system. Outcome research in rehabilitation, which undoubtedly includes the use of functional measures, has become a priority for many rehabilitation organizations. The press for this research is being fueled by the prospect of health care reform, which is likely to limit the type of services offered and the extent to which services are covered. Evidence of successful and efficient functional outcomes is expected to be the major mechanism by which organizations will convince third-party payers to cover services.

The importance of functional measures is also reflected in a Congressional mandate to develop a Medicare rehabilitation payment system (Department of Health and Human Services, 1987). Several studies have shown that a diagnosis-related group (DRG) basis is inappropriate for a prospective payment system for rehabilitation (Hosek et al., 1986; McGinnis, Osberg, Dejong, Savage, & Branch, 1987; Rondinelli, Murphy, Wilson, & Miller, 1991), and there appears to be consensus that functional measures will serve as more appropriate indicators for such a system (Wilkerson, Batavia, & Dejong, 1992). In contrast to DRGs, functional measures are more consistent with the goals of rehabilitation and appear to be good predictors of rehabilitation resource use, at least for inpatient rehabilitation (Hosek et al., 1986; McGinnis et al., 1987; National Association of Rehabilitation Facilities, 1985).

A proposed mechanism to facilitate outcome research in occupational therapy and to be consistent with a future prospective payment system is the adoption of a single functional outcome measure. The use of one functional measure offers a number of distinct advantages that stem from the standardization of measures among professionals. For example, through the collection of standardized functional outcomes by the majority of occupational therapists, national databases could be developed for large-scale studies showing the outcomes of occupational therapy and comparisons could be made amongst facilities and potentially among disciplines.

Although enticing, the selection of a single functional outcome measure for our profession is not without serious liabilities. Mandating a single functional outcome measure would imply that one measure is superior to all others. Recent research has suggested that there may be more similarities than differences among functional measures currently in use. For example, the three popular global functional status measures—the Functional Independence Measure (FIM) (“Guide for Use of the Uniform Data Set,” 1990), the Level of Rehabilitation Scale (LORS) (1994), and the Patient Evaluation Conference System (PECS) (1992)—have many similarities even though they are based on different philosophies, items, and scales (Heinemann, Linacre, Wright, Hamilton, & Granger, 1993; Silverstein, Fisher, Kilgore, Harley, & Harvey, 1992; Velozo, Magalhaes, Pan, & Weeks, 1993). These studies, which used Rasch analysis to evaluate construct validity, indicated that the activities of daily living (ADL)—mobility scales of all three instruments have similar hierarchies of item difficulty, with mobility items being the most challenging for patients and feeding items being the least challenging. In addition, in all three scales, the item feeding misfit, which means that its scoring was erratic relative to other ADL—mobility items. These findings suggest that, although there has been debate over choosing the so-called right functional outcome measure, in essence, all three instruments measure the same construct in a similar manner.

Fisher, Harvey, Kilgore, Taylor, and Silverstein (1993) more directly challenged choosing a single functional measure for rehabilitation. These investigators showed that the FIM and PECS can be equated and that transforming the scores from one instrument to the other is relatively simple. These findings suggest that a variety of functional measures may be intrinsically similar; therefore, conversion from one functional scale to another may be technically feasible.

One of the most important issues that should be considered in choosing a functional outcome measure is its effectiveness in documenting the outcomes of occupational therapy. The measurement qualities of most rehabilitation measurement instruments are based on admission scores. Unfortunately, analysis of admission scores is inadequate for evaluating an outcome measurement instrument. Although an instrument may show good measurement qualities at admission, this may not be the case at discharge. In our study of the LORS (Velozo et al., 1993) and preliminary analysis of the FIM (Velozo & Weeks, 1994), both instruments showed a ceiling effect for rehabilitation inpatients at discharge (i.e., inability to discriminate inpatients who showed high ADL—mobility functioning at discharge). The PECS...
does not show such an effect (W. P. Fisher, personal communication, October 1993). Although the scores from the LORS and FIM indicate that many patients are functioning perfectly at discharge, it is likely that these instruments are not sensitive to the true functional level of these patients at discharge. If such insensitivity exists, we are not measuring the actual functional improvements made by these patients and therefore are unlikely to capture the true effect of our rehabilitation interventions.

The choice of a functional outcome measure for our profession is unlikely to be based on the measurement qualities of the instrument. Selection is more likely to be based on the industry standard (i.e., the FIM). It is important, however, that the industry standard be sensitive enough to be the gold standard for occupational therapy. If we fall into the trap of choosing an instrument that is not a gold standard, we will have to live with the limitations of that instrument. If that limitation is insensitivity to the true functional outcomes that our profession achieves, our choice would be an unfortunate one. ▲

References


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