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ORIGINAL ARTICLE

Describing What We Do: A Qualitative Study of Clinicians' Perspectives on Classifying Rehabilitation Interventions

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Abstract

Objective: To gain an understanding of clinical thought processes about treatment classification and description, and to identify desired characteristics of and challenges to be addressed by a future rehabilitation treatment taxonomy.

Design: Qualitative analysis of data collected via focus groups and semistructured interviews.

Setting: Inpatient rehabilitation programs.

Participants: Clinicians (N=84) in 7 disciplines involved in data collection for practice-based evidence studies of spinal cord injury and traumatic brain injury rehabilitation.

Interventions: Not applicable.

Main Outcome Measure: Summary of themes reported by clinicians, determined by content analysis of focus group and interview transcripts.

Results: The multifaceted nature of rehabilitation treatment was identified as a major challenge to the process of classifying interventions. Simultaneous delivery of multiple interventions, performance of integrated tasks that challenge multiple body systems, and conversation-based treatments were reported to be difficult to classify. Clinicians reported that treatment classifications that make reference to goals of treatment were clinically intuitive, but they also reported difficulties when attempting to classify activities that could address multiple goals. These rehabilitation practitioners considered the setting in which treatment occurs, equipment used, assistance or cueing provided, type of treatment participants, and specific tasks performed to be important descriptors of their interventions. They recommended creating a classification system that can be applied at greater or lesser levels of detail depending on the purpose for which it is being used.

Conclusions: Treatment descriptors identified may be useful for differentiating classes of treatments or characterizing treatments within classes. Precise definition of the concept of the goal as it relates to treatment theory and definition of boundaries between treatments may aid classification of multifaceted treatment activities. A balance between detail and feasibility of use will facilitate successful clinical application of a future classification system.

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A system for classifying rehabilitation interventions is needed to give the rehabilitation field a common language with which to communicate about interventions in clinical practice, billing, education, and research. A number of efforts have been made to systematically describe the nature of interventions provided in rehabilitation. Publications, such as the *Guide to Physical Therapist Practice*[1] and the Occupational Therapy (OT) Practice Framework,[2-5] have been created by professional organizations to describe the scope and nature of the activities in their practice areas. Several observational research studies have been conducted to describe interventions provided by a number of rehabilitation disciplines, primarily physical therapy (PT),[6-11] OT,[6,7,9-11] and speech therapy (ST).[6-8,10] Still other efforts have been made to develop systematic classification systems to describe interventions provided to patients with specific kinds of conditions, such as stroke[12,13] and spinal cord injury (SCI).[14-16]

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The most extensive efforts yet undertaken to systematically gather data on the type and amount of specific therapies provided in the real world of rehabilitation have occurred in the context of practice-based evidence (PBE) studies conducted in recent years.[17] These large-sample observational studies are intended to open the black box of rehabilitation by identifying and quantifying specific rehabilitation interventions delivered to particular diagnostic categories of patients, and examining associations between these treatments and rehabilitation outcomes, adjusted for multiple case-mix characteristics. To date, PBE methodology has been used to study rehabilitation interventions provided to 4 diagnostic groups: stroke, joint replacement, SCI, and traumatic brain injury (TBI).[18-21] A key component of PBE data collection is point of care (POC) documentation, which is designed by teams of clinicians in each participating discipline. The POC documentation forms are used by frontline clinicians to classify the type and document the duration of interventions provided to their patients during each encounter with the patient (session, nursing shift, etc) over his/her entire hospital stay, and to document other aspects of the rehabilitation process that may influence outcomes. The POC forms contain lists of terms that identify types of interventions or treatment activities with which other information may be associated to provide further description of the treatment (eg, the number of minutes spent performing the activity, what equipment was used [assistive devices, exercise machines, etc], what deficits or therapeutic objectives were being addressed [processing speed, memory, self-esteem, anxiety, balance, endurance, etc], the type of cueing provided [verbal, visual, tactile], and the amount of physical assistance provided [minimal, maximal, etc]). Additional information about the session in general, such as session type (group vs individual), type of session participants (patient only, patient and family, cotreating therapists from other disciplines), and factors impacting the conduct of the treatment session (pain, medical complications, etc), are also documented on the POC forms. Seven disciplines have used POC forms to classify and document their interventions for the 2 most recent PBE studies (which examined SCI[20] and TBI[21] inpatient rehabilitation): PT, OT, ST, psychology, social work/case management, recreation therapy (RT), and nursing. A series of articles presents detailed information about the content and use of the POC forms for the SCI PBE study (SCIRehab Study).[22-29]

Although previous efforts to systematically document and classify the types of interventions provided in rehabilitation have contributed to our understanding of the rehabilitation process, none intended to produce a comprehensive classification system that is inclusive of all disciplines that collaborate in the rehabilitation process and all interventions that are provided to the various patient populations seen in rehabilitation. Furthermore, past classification systems have not used treatment theory as a basis for their design and nomenclature. A theory-driven classification system would aid the conduct of research to better understand the mechanisms and effects of treatment, would support efforts to train new clinicians, and would explicate the rationale underlying rehabilitation interventions to audiences within and beyond the rehabilitation field. An extensive discussion of the current state of rehabilitation treatment classification and the need for a theory-driven rehabilitation treatment taxonomy (RTT) is presented elsewhere.[30]

With support from the National Institute on Disability and Rehabilitation Research, an effort is currently underway to develop a comprehensive theory-driven classification of rehabilitation interventions that can be used across disciplines and specialty areas.[30] Rehabilitation clinicians are among the most important potential end users of a future RTT. To create a system that meets their needs, it is desirable to include their perspectives in the development process. However, most clinicians do not have extensive experience in the classification of rehabilitation interventions in daily practice. Fortunately, the initiation of the RTT development effort coincided with the conduct of the PBE studies focused on SCI[20] and TBI.[21] Although the classification systems used in these and other PBE studies were not theory driven and are likely to differ greatly from the future RTT, the conduct of these studies produced a cohort of clinicians with extensive experience in treatment classification. The process of completing POC forms required clinicians to think about the treatment activities performed in a given session, identify the number and classify the type of treatments they delivered, and match those activities to appropriate categories on the POC forms. Such a process mirrors what will ultimately be required in the clinical application of the RTT currently under development. The aspects of the POC forms that clinicians found helpful (including the nature of the terminology used to describe treatments) and the challenges they encountered when trying to classify their interventions using these forms will reveal characteristics of a future classification system that are likely to be considered acceptable by clinicians and highlight issues that will need to be addressed to facilitate clinical adoption of a future RTT. Thus, clinicians who participated in the PBE studies are uniquely knowledgeable about attempting to classify rehabilitation in the real world, and their experiences are likely to offer insights to those involved in the creation of a clinically relevant RTT.

The qualitative study described herein aimed to distill the collective wisdom of these clinicians by seeking their feedback on experiences classifying and describing their daily treatment activities in the context of the PBE studies. The objectives of the current investigation were to gain an understanding of clinical thought processes about treatment classification and description, and to identify desired characteristics of and challenges to be addressed by a future RTT.

List of abbreviations:

OT	**Occupational Therapy**
PBE	**Practice-Based Evidence**
POC	**Point of Care**
PT	**Physical Therapy**
RT	**Recreation Therapy**
RTT	**Rehabilitation Treatment Taxonomy**
SCI	**Spinal Cord Injury**
ST	**Speech Therapy**
TBI	**Traumatic Brain Injury**

Methods

Participants

Physical therapists, occupational therapists, speech therapists, psychologists, social workers, recreation therapists, and nurses who participated in data collection for the SCIRehab[20] and TBI-PBE[21] studies were invited to participate in the project. Invitations to participate were shared via e-mail, flyers, and communications with clinical supervisors. Participants were recruited from 8 centers: Mount Sinai Medical Center, Shepherd Center, Rehabilitation