

Functional assessment in mental health: lessons from occupational therapy

Joan C. Rogers, PhD, OTR/L, FAOTA; Margo B. Holm, PhD, OTR/L, FAOTA, ABDA



Occupational therapists have been conducting functional assessments since World War I, and this accumulated experience has taught us several critical lessons. First, a comprehensive profile of a patient's functioning requires multiple assessment methods. Second, assessment content and measurement constructs must change with the times. Third, technology can enhance and extend functional assessment. Fourth, performance-based assessments of everyday activities can also be used to measure body functions/impairments. However, while deconstructing activities into body functions/impairments is possible, the results do not reflect patients' abilities to integrate the cognitive, motor, sensory and affective functions necessary to complete a complex activity. Finally, the differential complexity of everyday activities that a patient can master or successfully complete can also provide a ruler with which to measure progress.

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Dialogues Clin Neurosci. 2016;18:145-154.

Keywords: functional assessment; occupational therapy; mental health; performance assessment

Introduction

Patients with mental illness do not always begin a session with their health care provider by discussing their symptoms. Rather, they talk about what they are unable to do because those symptoms interfere with everyday activities. Likewise, when health care providers want to know the outcomes of their psychotherapeutic and psychotropic interventions, they query patients about their impact on everyday activities and functioning as well as symptomatology. While advances in medicine and psychiatry have ameliorated and controlled many of the symptoms of mental illness—and have extended life—not all patients are cured of all symptoms and they must live with their residual effects. As patients age, medical/psychiatric conditions may accumulate, further complicating daily life.

Occupational therapy (OT) assessment focuses on functions related to daily living that patients need to perform (eating, hygiene, dressing), want to do (socializing, skiing, attending college), and are expected to do (work, household chores, managing medications). Function as used in “functional assessment” has historically been applied to anatomical organs (eg, muscle func-

Author affiliations: Professors Emeritus, Department of Occupational Therapy, School of Health and Rehabilitation Sciences, University of Pittsburgh, Pittsburgh, PA

Address for correspondence: Joan C. Rogers, 1515 Dock Street #407, Tacoma, WA 98402-3256, USA (email: jcr@pitt.edu)

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tion), parts of the body (eg, arm function), and social roles (eg, functioning as a homemaker). To clarify the targets of rehabilitation assessments and interventions, the World Health Organization developed a companion taxonomy to the *International Classification of Diseases* (eg, *ICD-10*). The International Classification of Functioning, Disability and Health defined the continuum of functioning and disability using the concepts of body structures and functions/impairments, activities/activity limitations, and participation/participation restrictions.¹ Thus, an individual with schizophrenia may experience cognitive deficits (impairment), lack the capacity to use hand tools effectively (activity limitation), and be unable to hold a job (participation restriction).

Historically, OT has its roots in moral treatment.² Its purpose was to engage institutionalized and hospitalized mentally ill patients in performing everyday activities or occupations. This paper discusses “lessons learned” about functional assessment by OT practitioners, since 1918, when OT reconstruction aides were sent to France to establish a workshop for soldiers with “war neuroses.”³ The examples given to clarify our points are intended to be illustrative rather than comprehensive.

Lessons learned: A comprehensive profile of a patient's functioning requires multiple assessment methods

While the distinguishing feature of OT assessment is performance testing of activities, initially information is usually obtained from patient self-report, and when performance testing identifies limitations, impairment testing may follow. For self-reports, therapists interview patients about their *capacity* (what they can do) to perform activities they need, want, or are expected to do and their daily *habits* (what they actually do). If the patient is unable or unwilling to self-report, or corroboration of the self-report is needed, then data may be gathered from knowledgeable proxies (eg, family or professional caregivers). These data identify the activities that are to be performance-tested.

Patients are then asked to demonstrate the usual way they perform targeted activities.⁴ The OT assessment process is dynamic. When patients encounter activity limitations, the therapist intervenes to help them compensate for the limitations. Assistance is given systematically and hierarchically from help that is least as-

sistive (verbal encouragement) to help that is more assistive (physical support). The process concentrates on the subactivities that comprise an activity. For example, to manage medications, patients need to: understand their prescriptions; identify their medications; know the time that each medication is to be taken; know the dose of each medication, etc. By observing patients sort their medications into a medication sorter, their ability to perform each of these subactivities can be assessed. By the end of testing medication management, the therapist has identified the subactivities that were done independently, those for which assistance was required, and the type of assistance that was effective for compensating for limitations. During testing, patients are typically asked to give their views about their performance strengths and weaknesses. Dynamic assessment provides information that is directly related to intervention, and likely cannot be obtained through other data-gathering methods. Activity assessment may be followed by impairment testing. If performance testing suggests that the limitation was due to a deficit in organizational skills or dexterity, a test of executive function or manual ability might be administered to gather more data about the potential cause of the limitation.

Thus, multiple assessment methods contribute to a patient's functional activity profile because each method provides different but related information—patient or proxy perceptions, objective performance data, objective impairment data. The interplay between concepts and methods was illustrated in a study of older women with depression.⁵ Participants' self-reported basic activities of daily living (BADL) and instrumental ADL (IADL) skills were greater than their observed performance, and their observed performance was greater than their self-reported abilities to habitually carry out those BADL/IADL activities. Clinically, the OT is challenged to lend meaning to the disparities that emerge among data sources.

The utility of performance testing, the signature OT assessment method, for research has been advocated because it yields a direct measure of the behaviors of interest.⁶ The following examples support its inclusion:

- A secondary analysis of the 2001 Aging in Manitoba Longitudinal Study (AIMS) data found that the odds of receiving home care within the 30-month follow-up periods were 1.32 times (or 50% higher for each increase in the number of dependent activities based on the performance-based Performance Assessment of

Self-Care Skills (PASS). Because previous iterations of the AIMS, using self-report measures, did not predict home care utilization accurately, it was concluded that performance-based functional assessments be used to predict future home care needs more accurately.⁷

- Studies using performance-based functional assessment items have accurately differentiated between participants with mild cognitive impairment (MCI) and participants with normal cognition (PASS).⁸⁻¹⁰
- Performance-based functional assessments, such as the Cognitive Performance Test, have been used to predict level of care needed in memory care residential facilities.¹¹
- Ecological validity of OT functional assessments has been achieved through community-based assessment with the Assessment of Motor and Process Skills (AMPS),¹²⁻¹³ PASS,¹⁴ Test of Grocery Shopping Skills (TOGSS),¹⁵ virtual reality,¹⁶ and driving simulators and on-the-road driving evaluations.^{17,18}

Lessons learned: Assessment content and measurement constructs must change with the times

In hospital settings occupational therapists focus on BADL and IADL. However, in outpatient and community settings the focus expands to include school, work, and leisure assessment.

The Katz Index of Independence in Activities of Daily Living initially defined the content of BADL as bathing, dressing, toileting, transferring, continence, and feeding.¹⁹ These personal self-care activities, with the addition of walking and communication, are fundamental to medical rehabilitation and are pivotal to insurance reimbursement for nursing home and home health care services. While many instruments rate the same activities, the way in which the activities are defined often differs. On the Katz Index, independence in dressing includes getting clothes from closets and drawers, a requirement that is not specified on the Functional Independence Measure™ (the standard for medical rehabilitation),²⁰ or the Outcome and Assessment Information Set (OASIS, mandated for home health care).²¹ Lack of comparable definitions of BADL and IADL on various instruments is not uncommon and can result in patients improving or declining because of the instrument used versus real change in their functional status.²²

Growth of the older population and its activity requirements and deinstitutionalization with its emphasis on community participation combined to direct attention to the need for assessment tools for the more complex IADL. This spurred the development of several OT instruments specifically for use with psychiatric patients. The Kohlman Evaluation of Living Skills (KELS),²³ the Milwaukee Evaluation of Daily Living Skills (MEDLS),²⁴ and the Performance of Self-Care Skills (PASS),¹⁴ have in common an emphasis on community living skills. The KELS and MEDLS combine observed performance with self-report, while the PASS involves only performance and has a separate companion self-report protocol. The PASS also has several unique features—test items were devised based on work sampling techniques to create test situations representative of the actual situation for all 18 IADL; some items combine several activities (eg, fix a meal requiring the use of stovetop [soup], oven [muffins], and knife [cut fruit] to facilitate observation of planning and organizational skills); all items are based on activity analysis and sequential steps are rated, thus enabling identification of abilities and disabilities.

While independence remains the pivotal construct for OT assessment, other measurement constructs have become significant. In medical rehabilitation, to be independent, patients must also be safe (see Functional Independent Measure).²⁰ Testing patients in psychiatry, including those with schizophrenia and manic symptoms, highlighted that performance was often independent but unsafe or inadequate. This observation resulted in separate ratings of activity independence, safety, and adequacy on the PASS¹⁴ so that each construct could be addressed in competency hearings. Difficulty, importance, and satisfaction were introduced on the Canadian Occupation Performance Measure (COPM),²⁵ a semi-structured interview frequently used to determine activities to be treated in OT.

A very different measurement approach was incorporated into the Routine Task Inventory (RTI-E).²⁶ Performance is measured based on the errors or aberrant behaviors observed. For example, the five levels of performance for dressing range from “1 - Must be dressed by caregivers and does not spontaneously alter position of the body to facilitate dressing” to “5 - Selects own clothing and dresses without error.” Aberrant behaviors include wearing underwear on top of street clothes, garments inside out or backwards, donning

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multiple layers of clothing, and dressing inappropriate-ly for current weather conditions.

Communication and social interactions pervades all activity categories, even BADL when dependency is involved. Recently, the Evaluation of Social Interaction (ESI)²⁷ was developed and validated to assess the quality of social interactions of patients with neuro-logic and psychiatric conditions. Trained and calibrated therapists observe two naturalistic social exchanges between a patient and a familiar person and rate their interactions.

Work samples used in OT are representative of the tasks, knowledge, skills, and contexts of jobs patients have already held or are interested in pursuing.²⁸ For example, some of the Valpar Component Work Sam-ples²⁹ consist of simulated electrical circuitry and print reading, and clerical comprehension and aptitude. In “supported employment” the therapist serves as a job coach for patients with psychiatric and developmen-tal conditions. It focuses on the job skills and job behav-iors required to obtain and persist in a job.³⁰ The ecological validity of supported employment removed two of the critical barriers to obtaining and keeping a job among patients with severe mental illness by in-creasing: (i) readiness for job seeking; and (ii) estab-lishing a positive working relationship with their job coach.³⁰

Lessons learned: Technology can enhance and extend functional assessment

Technology developments over the past few decades hold the potential for facilitating the conduct of the functional assessment. As illustrated below, technolo-gies can promote the ease of data collection for self- and proxy reports, provide decision support, increase the feasibility of assessing daily living habits, foster and enhance ecological validity, and increase access to OT assessment and intervention. Technologies change rap-idly and may be outdated before effectiveness studies can be conducted.

Item response theory and computer adaptive testing

Item response theory (IRT) examines the mathematical relationship between patients’ true abilities and their re-sponses to test items.³¹ It has been used by occupational

therapists to develop and interpret performance-based (eg, AMPS)^{12,13} and self-report assessments (eg, Activity Measure for Post-Acute Care;TM AM-PAC).³² With the AMPS, patients perform two to three activities and using IRT software the patient’s performance on 75+ ac-tivities is estimated. This estimation enables therapists to identify those activities that are more difficult for the patient when compared with an anchor sample, and to know where to focus a more detailed evaluation. With the AM-PAC, patients indicate their difficulty perform-ing tasks that are presented on the computer screen. Based on their responses, the computer adaptive testing IRT software continues to generate items that are close to the same level of difficulty for each response, until the patients’ estimated abilities are established. When a performance-based assessment was not developed using IRT, IRT can still be used to identify a hierarchy of patient abilities and activity item difficulty. For example, with the PASS, Hamed et al identified that patients with major depression who were in the maintenance phase of treatment performed significantly better in their homes than they did in the clinic on IADL.³³ Likewise, Chisholm et al found that for persons with depression BADL and IADL were more difficult for the inpatients than the outpatients, suggesting that functional disabili-ty is associated with illness severity.³⁴

Virtual reality

A fundamental principle of assessing activity perfor-mance is that the environment where testing occurs should approximate the environment where the activity will actually take place. As the focus of OT expanded from bodily-oriented self-care activities to include more emphasis on home, school, work, and recreational activ-ities, the activities to be assessed became more complex, varied, and individualized. The specific demands of these activities and their environments were difficult to reproduce in clinical situations. Virtual reality emerged as a potential solution to this problem because it holds promise of increasing the ecological validity of assess-ment and intervention.

A virtual environment looks real, provides real-world activities for the user to experience, and can be readily integrated into clinical settings. The environ-ment is safe, which is of particular concern when users engage in activities that are risky because of deficits in cognitive awareness or motor control. From a measure-

ment perspective, the virtual environment is standardized and consistent across time, thus facilitating repetition and comparison. It provides objective data, which are collected in real time and can yield multiple performance measures (eg, accuracy, duration). Activities can be graded in difficulty and adapted to give feedback (usually verbal, visual, or tactile) and instruction. Its primary disadvantages are possible side effects that may occur during (eg, motion sickness) or following (eg, perceptual-motor disturbance) usage, the cumbersomeness of interface devices, and the high development costs.³⁵

To date, the most extensive use of virtual reality for activity assessment is in street crossing, which has been examined in children and adolescents with autism,³⁶ typically developing children,³⁷ and adults with stroke,³⁸ and cooking in adults with traumatic brain injury.³⁹ Psychometric studies have been slow to accumulate, but are supportive. For example, the cooking test was found to be reliable, valid, and sensitive to change although validity was evaluated through correlations between virtual and actual performance in a clinic rather than the home.³⁹

Driving simulators

Because of the risk to the driver, driving instructor, and the public associated with on-the-road driving assessment, driving simulators have a long history in rehabilitation.^{40,41} Simulators vary from a computer screen and mouse, to multiple large computer screens, to a 360-degree screen with a head-mounted virtual reality display. The associated steering wheel, gearshift, gas and brake pedals, dashboard, and signals can also vary widely. Driving simulators seek to present screen situations that match on-the-road test criteria such as starting/stopping, turning, right of way/inattention, and moving in a roadway.⁴⁰ Research supports a strong correspondence between simulator and on-the-road driving performance.⁴⁰ However, a recent survey of certified driver rehabilitation specialists suggested that the validity of driving simulators could be increased by including several critical driving situations, such as turning left across oncoming traffic; navigating four-way intersections with traffic lights or signs; merging into traffic on the highway; and reacting to unexpected events.¹⁸ Importantly, in a TBI sample, initial simulator indices were better predictors of driving performance 10 months later, than observed driving performance measures.¹⁷

Telerehabilitation

Telerehabilitation, the rehabilitation version of telehealth, is the delivery of assessments and interventions via technology, with therapists and patients in two different physical locations.⁴² It can be delivered over relatively low-cost videophones,⁴³ low-bandwidth internet,⁴⁴ high bandwidth internet, and Internet Web sites.^{45,46} While slower internet speeds may be effective for interviewing patients and observing gross motor performance, higher internet speeds are needed for observation of detailed motor movements and positioning of objects. Telerehabilitation fosters the Triple Aim of the Affordable Care Act: improved quality of care, better health outcomes, and lowered costs.⁴²

Early on Dreyer and colleagues used low-bandwidth internet to transmit images of four patients being assessed with the KELS and the COPM.⁴⁴ A second therapist in a different city viewed and rated the assessments. While the audio was more than adequate, video images made it difficult to observe fine movements, however therapists' ratings were the same for three of the four patients. Hoenig and colleagues used a small wireless camera operated by a technician to film and transmit, via a videophone, patients moving around their home and performing transfer tasks using their newly prescribed walker or wheelchair.⁴³ Because therapists were able to observe how patients interacted with their living environments, they were also able to make specific, concrete recommendations. Follow-through on these recommendations ranged from 33% for environmental modifications, 50% for assistive technology, and 71% for adaptive strategies.

For most mental health assessments, a natural conversational flow between the clinician and patient is needed to foster a trusting relationship and elicit diagnostic cues. Assessments may also require the presentation of test materials at intermittent times. These assessments have been difficult to deliver remotely because a technician is needed at the distant site to present test materials and adjust the clarity of the TV screen if needed. These actions interrupt the clinician-patient interaction. Further, multiple devices are needed (eg, document reader for hardcopy materials, VHS videotape player for recording) to administer the structured interview and capture the patient's responses. These technology and conversational problems were resolved with the development of Versatile and Integrated System for Telerehabilitation

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(VISYTER).⁴⁷ VISYTER integrates videoconferencing, test material presentation, recording, and image and video presentation and gives the clinician more control of the remote site (eg, presenting test materials on the screen, layout and clarity of the screen display). Using the Autism Diagnostic Observational Schedule (ADOS), as an exemplar, Parmanto et al⁴⁷ developed and evaluated remote delivery of Module 4, the protocol for verbally fluent adolescents and adults suspected of having autism. The ADOS requires a sequence of activities to evaluate skills in communication, social interaction, and creativity. Participants' (n=10) ratings for factors associated with ease of learning and use, comfort, quality of interaction, and willingness to use again were highly favorable. While still positive, the lowest ratings were obtained for participants' perceptions that remote assessment was the same as in-person assessment and the acceptability of telehealth for service provision. Comparison of remote and in-person assessments yielded acceptable agreement for 21 of 31 ADOS items and substantial agreement (ICC = .92) was achieved for diagnostic classification.⁴⁸ Assessment of wheelchair fit and functional usage in a remote clinic, using VISYTER, was also found to be a viable alternative to in-person assessment.⁴⁵

Traumatic brain injury is another population that can benefit from telerehabilitation. A frequent consequence of traumatic brain injury is chronic fatigue, which can negatively affect performance of everyday activities. Raina and colleagues studied the feasibility of using Web-based telerehabilitation to assess and manage fatigue.⁴⁶ Persons assessed as having moderate fatigue were randomized to either an experimental Maximizing Energy (MAX) intervention, incorporating energy conservation principles, or a control health education intervention. MAX uses the structure of problem-solving therapy and requires participants to identify performance problems. Together with the occupational therapists, patients generate solutions, try them, modify them if needed, and move on to the next problem. Although there were no significant differences between the groups for fatigue, effect sizes were small to medium in favor of the MAX group. Participant satisfaction with the intervention was also greater for the MAX group.

Electronic monitoring

Assessment of daily living habits is usually achieved through diaries or daily schedules, completed pro-

spectively, using prescribed formats, by patients and/or proxies. Less frequently, activities are observed and sampled by time or events. While tried and true "paper and pencil" diaries and recording protocols continue to be relied on, increasingly data collection is being transferred to laptop computers, personal digital assistants, and smartphones. Technology has renewed interest in ecological momentary assessment (EMA), that is, the collection of data in real-time in real-world environments. EMA is particularly useful for understanding the trajectory of behaviors in relation to events and circumstances. For example, it facilitates monitoring the sequence of activities that lead patients to experience fatigue, pain, exhaustion, anxiety, or depression. Understanding the emergence of such outcomes provides the building blocks for designing preventive interventions and achieving improved health outcomes.

Among the earliest devices marketed for ADL support for people with memory deficits was NeuroPage—a simple paging system that sends audio or vibration cues to users' pagers to remind them of activities that need to be done. A randomized controlled trial with crossover of 143 adults, most with traumatic brain injury and stroke, significantly reduced daily problems associated with personal care, medications, and appointments.⁴⁹ Mobus, patient and caregiver applications connected and implemented in a PDA, is a cognitive orthosis developed to compensate for and improve deficits in planning and memory. Its application with adults with schizophrenia indicated its overall utility and acceptability for ADL monitoring and symptom notification. However, some patients with paranoid symptoms found it less useful because of the connection to a caregiver, which engendered a sense of constantly being watched.⁵⁰

The increasing availability and affordability of smartphones and abundance of health-related apps has spurred the development of sophisticated mobile health (mHealth) systems. One such system was trialed on patients with spinal bifida, although its underlying architecture was developed to support patient self-management and individualized health care programs for chronic and complex conditions.⁵¹ IMHere (Interactive Mobile Health and Rehabilitation) is an integrated, system that consists of smartphone apps and a clinician portal (Web-based) connected by a bidirectional patient-clinician communication network. The apps (eg, MyMeds, Mood) send monitoring data to the portal and receive individualized self-care and health instructions

from a case manager via the portal. For example, if the score on the mood questions suggests depression, the patient receives a suggestion to call the mental health crisis line or 911 and the clinician is notified that the patient may be at risk. iMHere meets all Health Insurance and Portability and Accountability Act (HIPAA) requirements and has a unique security provision whereby data can be erased if the smartphone is lost or stolen.

Rogers et al used laptop computers with Noldus Observer XT software to examine the morning care routines of nursing home residents with dementia.⁵² Data were collected from morning awakening through the sequences of toileting, bathing, hygiene, and dressing. Activity analysis of each BADL was entered into the software architecture, as well as descriptions of disruptive behaviors. An observer recorded resident actions and staff assistive actions in real-time. Outcomes indicated that residents' retained BADL skills (including those with Mini-Mental Status Examination scores of 0),⁵³ reinforced with newly learned habits, led to significant increases in participation in morning care routines and a significant decrease in disruptive behaviors.

Sensors

Accelerometers have been found to be useful for monitoring physical activity, especially as this relates to obesity. Swedish occupational therapists used accelerometers to assess physical activity, over 1 week, with 165 adult patients with mild-to-moderate depressive and/or anxiety disorder symptoms.⁵⁴ There were no significant between group differences, but 64% of the sample's activities were sedentary, and participants with depression were the most sedentary. Depressive symptomatology was associated with sedentary activity, leading the authors to recommend an increased emphasis on physical activity to counteract depressive symptoms. Australian occupational therapists are exploring the use of accelerometers with Nintendo Wii Fit™ to encourage patients in a mental health unit to increase their physical activity, because they are at risk for obesity side effects from their psychotropic medications.⁵⁵

Ubiquitous sensors placed in and around the environments in which activities take place, for example on medications, food containers, or exercise equipment in the home, can help to define the occurrence of habitual activities. Providing individuals with information about their habits has been shown to prompt behavior change.⁵⁶

Lessons learned: Performance-based assessments of everyday activities can be used to measure body functions/impairments

Activity assessment can yield measures of the activity (shopping) or measures of impairments or functions demonstrated while performing the activity (executive dysfunction). Examples of OT assessments using the impairments/body functions approach to measurement include the AMPS,^{12,13} the Executive Function Performance Test (EFPT),⁵⁷ and The Weekly Calendar Planning Activity (WCPA).⁵⁸ For the AMPS, patients (children and adults) choose two to three everyday activities to perform (eg, making a tossed salad, plant care, making snacks) and the raters measure motor (eg, reaches, bends, grips, handles) and process (eg, initiates, organizes, attends) skills. Based on patients' performance on the two to three items, their ability to perform all 75+ AMPS tasks is then calculated statistically using Rasch analysis (item response theory). The EFPT asks adult patients to perform several everyday activities (eg, cooking, telephone use, money management), however, the raters evaluate five EF constructs: initiation, organization, sequencing, safety and judgment, and completion for each task to determine the level of support needed.⁵⁷ The WCPA, designed for adolescents, requires students to enter appointments into a calendar, following specific rules (eg, no appointments on Wednesdays), and raters observe the students, note observable strategies used, and rate their performance on location errors, repeat errors, incomplete errors, time errors, and self-recognition errors.⁵⁸ Students are also interviewed to ascertain non-observable cognitive strategies they used and to rate their performance on the task (eg, I used an efficient approach to this task).

Virtual reality has been used more commonly to measure the planning and organizational skills that are generally grouped under executive functions than an activity per se. The conclusion to be drawn is not how independently or well can patients do the activity but how adequate is their executive functioning. Multiple validity studies support this usage.^{16, 59, 60} In a sample of persons with schizophrenia, Josman and colleagues⁶¹ found moderate-to-high correlations between two Virtual Action Planning-Supermarket (VAP-S) outcome measures (number of items purchased and number of items correct) and the Behavioral Assessment of Dysexecutive Syndrome (BADS), a recognized mea-

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sure of executive function. Significant differences were delineated between persons with schizophrenia and controls. Subgroups of participants with schizophrenia were developed based on number of items purchased. Participants who experienced negative symptoms associated with schizophrenia performed less well. Werner et al⁶⁰ concluded that the VAP-S would be a useful adjunct to diagnostic testing for mild cognitive impairment because of its non-threatening nature and the minimal training needed to administer it. Their study showed that in combination with the Mini-Mental State Examination (MMSE), one VAP-S outcome measure (total time) correctly identified 93.3% of the healthy group and 80% of the MCI group. Identification was equivalent to or better than the MMSE in combination with the BADS profile score. Interestingly, the Virtual Mall compared favorably to usual occupational therapy training to remediate executive dysfunction in patients with brain injury.⁶²

Discussion and challenges

Clinically, the OT assessment challenge is to integrate data gathered from different sources into a meaningful profile of the patient's activity—patient and caregiver perceptions of capacity and habits; performance indicators of capacity based on clinical and/or real environments; and impairment data, suggesting potential reasons for activity limitations. Each measure is valid for the data it yields and each should be taken into account in intervention planning. If patients do not believe that they can do something, or prefer not to do it, it is unlikely that they will engage in the activity, even though they have the capacity to do so. In cases such as these, OT would be directed toward reducing the capacity-habit discrepancy rather than developing capacity per se. Activity performance is highly dependent on the environment—physical and social—in which it occurs. Technologies, such as telerehabilitation, smartphones,

and sensors, can assist therapists in understanding environmental influences on performance, including how activities are organized into habits. Technologies to assist data-gathering will be useful only if they provide the opportunity to grade subactivities, so that improvement in performance can be recorded, and to characterize dimensions of performance beyond independence.

When reporting performance-based test results at team meetings, occupational therapists are often asked about how patients' performance compares with the test norms. Unlike neuropsychological assessments, which are norm-referenced, focus on discrete cognitive, motor, and sensory functions, and include novel test items, OT activity assessments are criterion-referenced, focus on the integrate use of cognitive, motor, sensory, and affective functions, and include everyday test items. Items are based on the requirements that are standard for the performance setting—what are the activity requirements for living in a group home or working as a receptionist. Clinical judgments may be discordant between neuropsychologists and occupational therapists because their databases are very different. For clinical research, test items are typically desired that distinguish those who perform better from those who perform worse. On criterion-referenced tests, it is only when activities are complex or unfamiliar or individuals are very impaired that substantive score variability is seen for independence ratings. Thus, performance on the IADL shopping and checkbook items differentiated normal controls from individuals with MCI.⁹

Lastly, as performance of everyday activities necessary for living in the community gains acceptance as a meaningful outcomes of psychiatric intervention, how to measure functional abilities and disabilities will assume increasing significance. Based on the lessons learned through experience, occupational therapy practitioners and scientists can provide theoretical and practical guidance on the content and process of functional assessment. □

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Evaluación funcional en salud mental: lecciones desde la terapia ocupacional

Los terapeutas ocupacionales han realizado evaluaciones funcionales desde la Primera Guerra Mundial, y esta experiencia acumulada nos ha enseñado algunas lecciones importantes. Primero, un perfil comprensivo del funcionamiento de un paciente requiere de múltiples métodos de evaluación. Segundo, el contenido de la evaluación y los constructos de medición deben cambiar con los tiempos. Tercero, la tecnología puede reforzar y ampliar la evaluación funcional. Cuarto, las evaluaciones basadas en el desempeño de las actividades diarias también se pueden emplear para medir las funciones y deterioros corporales. Sin embargo, aunque es posible la deconstrucción de las actividades en funciones y deterioros corporales, los resultados no reflejan las capacidades de los pacientes para integrar las funciones cognitivas, motoras, sensoriales y afectivas necesarias para completar una actividad compleja. Por último, la complejidad diferencial de las actividades diarias que un paciente puede dominar o completar exitosamente también puede aportar una regla con la cual medir el progreso.

Évaluation fonctionnelle en santé mentale : les enseignements de l'ergothérapie

Les ergothérapeutes ont mené des évaluations fonctionnelles depuis la première guerre mondiale et cette accumulation d'expérience nous a enseigné plusieurs leçons essentielles. Tout d'abord, de nombreuses méthodes d'évaluation sont nécessaires pour établir le profil complet du fonctionnement d'un patient. Deuxièmement, le contenu de l'évaluation et les méthodes de mesure doivent évoluer avec le temps. Troisièmement, la technologie peut améliorer et élargir l'évaluation fonctionnelle. Quatrièmement, les évaluations basées sur la performance des activités quotidiennes peuvent aussi être utilisées pour mesurer le fonctionnement du corps (ou les troubles du fonctionnement). Toutefois, bien qu'il soit possible de décomposer les activités du quotidien par fonction, les résultats obtenus ne reflètent pas la manière dont les patients sont capables de coordonner leurs fonctions cognitives, motrices, sensorielles et affectives pour effectuer une activité complexe. Enfin, différents niveaux de complexité des diverses activités quotidiennes qu'un patient peut maîtriser ou exécuter avec succès peuvent aussi fournir une règle permettant de mesurer le progrès.

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