**Health Literacy in Occupational Therapy Practice and Research**

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**Health literacy** has traditionally been defined as the “ability of the individual to access, understand, and use health-related information and services to make appropriate health decisions” (U.S. Department of Health and Human Services, 2000, p. 11-9). To successfully perform and incorporate skills and behaviors recommended by health care providers, clients must be able to understand written, pictorial, and verbal communications to navigate the complex health system and make health-promoting choices. Research has shown, however, that people with limited health literacy—especially those with chronic conditions such as diabetes—have inadequate knowledge of illness prevention and management and lower self-reported health status (Baker, Parker, Williams, & Clark, 1998; Baker et al., 2002). National and international assessments of adults’ ability to use health information suggest an incongruence between people’s skills and the demands of health systems. Nearly half of all Americans, or 90 million people, have difficulty understanding and acting on health information, and more than 40 million cannot read complex text (Comings, Reder & Sum, 2001; Kirsch, Kader, Jensen, & Kopher, 2002). The average American reads at a 6th-grade level, yet most health information is written or verbally communicated at a 10th-grade level.

**Health Literacy and Health Outcomes**

A study of low-income, English-speaking clients in a public hospital revealed that one-third were unable to read basic health materials, 26% could not read their appointment slips, and 42% did not understand the labels on their prescription bottles (Williams et al., 1995). The same study found that 26% did not know when their next appointment was and that 65% did not understand the instruction to take medication on an empty stomach.

In another study, adults >65 yr had a lower health literacy score than adults ≤65 yr. In the oldest group of participants (>80 yr), 29% scored at the Below Basic level and 30% scored at the Basic level. People at the Below Basic level could not perform more than simple activities such as signing a form, and those at the Basic level had difficulty combining two pieces of information to determine what time to take a medication (White, 2008). Gausman Benson and Forman (2002) analyzed the health literacy of older adults in an affluent retirement community and found that although most residents were college educated, 30% had poor comprehension of written health documents. This finding demonstrates that even people who are well educated and have adequate general literacy may not have sufficient health literacy.

Inadequate health literacy continues to grow exponentially as people are being asked to assume more responsibility for self-care in an increasingly complex delivery system filled with health information and technology. People are frequently discharged from the hospital or care setting with multiple health care management responsibilities placed on them, their families, and other caregivers (Rudd, Kirsch, & Yamamoto, 2004). As a result, medical errors caused by misunderstandings about
medications, treatment regimens, and self-care instruction can easily occur from ineffective communication among health providers and consumers.

When examining the factors that affect health literacy, it is also important to consider the diversity of people who interact with the health care system. Well-documented differences on the basis of educational attainment, poverty, access to resources, and minority status have been shown in literacy proficiencies (Doak, Doak, & Root, 1996). Moreover, the way in which health is communicated and envisioned differs from culture to culture. Failing to acknowledge these differences can contribute to medical errors and nonadherence.

Health Literacy and Occupational Therapy Practice

Occupational therapy practitioners break down activities and environmental demands into component parts to identify client strengths and deficits in specific functional daily life activities.

Rudd, Soricone, Santos, Nath, and Smith (2006) have similarly worked with health care practitioners to deconstruct health activities into associated tasks to better appreciate the complexity of skills required to complete health-related activities. For example, to monitor blood sugar, a person with Type 1 diabetes must be able to follow directions to correctly use a blood sugar monitor, use a clock to determine when to test for blood sugar with regard to meals, know how to record and interpret results, and determine how to proceed on the basis of results.

Occupational therapy practitioners have the unique opportunity to become key players in the promotion of client health literacy related to the profession’s unparalleled assessment and intervention of the person, environment, and occupation. The Person–Environment–Occupational Performance model (Christiansen, Baum, & Bass-Haugen, 2005), for example, promotes consideration of the complex interaction of the person and the health care environment and how this interaction facilitates or hinders performance of the tasks necessary for people to effectively manage their health. Consideration of this interaction would ideally result in providing information to reorient health services toward the pursuit of a health-literate environment.

Occupational therapy practitioners need to be aware of aspects of the health care environment that may create barriers to understanding and engagement and assist in adjusting the environment to fit client needs to improve client health and functional outcomes and decrease health care disparities (Volzt, 2006). For example, adaptations of the health literacy environment review have been used to evaluate navigation, oral and printed communication, technology, and policies and protocols of a rehabilitation center and a senior independent living facility (Smith, Hedrick, Earhart, Galloway, & Arndt, 2010).

After assessment of the environment, occupational therapy practitioners can participate in the creation of a health-literate environment within and outside their practice environment. Practitioners can play a role in health literacy in their own setting, ensuring that clients understand their diagnoses and treatments and communicate at a level that clients can understand. Written materials can be revised using plain language, and staff can be trained in oral plain language using case-based simulations. Occupational therapy practitioners can also provide education on health literacy–related topics to other health care professionals. Simple strategies for improving health literacy for clients also include discouraging the use of medical jargon, understanding that head nodding does not always indicate comprehension, scheduling enough time to discuss information, providing information in the client’s native language, writing clear directions for home programs using large typeface, and asking the client to repeat information to demonstrate understanding (Barrett, Puryear, & Westpheling, 2008; Bendycki, 2008).

Health Literacy and Occupational Therapy Research

Formulating research questions that examine whether occupational therapy interventions support client health literacy is essential. Research questions about health literacy must be asked at both the client and the community levels. At the client level, occupational therapy researchers must generate questions whose answers can provide guidance about best clinical practice procedures. For example,

- Do clients with upper- and lower-extremity disease, injury, or amputation understand how to correctly don orthotic and prosthetic devices, when to use the devices, and how long to use them?
- Do clients with cognitive impairment poststroke understand the requirements of a home program such as modified constraint-induced therapy; do they correctly adhere to the wearing conditions of restraint mitts in accordance with intensity and duration? Do caregivers understand the recommendations of such home programs, and do they understand how to implement home programs with the client?
- Do elderly clients with memory impairment understand how to use a weekly medication pillbox organizer set up by a home care therapist to take medications as prescribed when they are alone in their own homes?
- Do clients with brain injury understand how to use customized memory devices that provide cues for the steps of specific daily activities such as showering or meal preparation? If such devices do not work effectively, do clients understand that they must inform and seek help from the therapist?
- Do clients with spinal cord injury understand the need for weight-shifting programs to reduce the risk of pressure ulcers? Are they able to adhere to such recommendations, and if not, why?
- Do elderly clients with hip replacement understand and adhere to hip protocol guidelines once discharged from health facilities? What communication barriers prevent clients from carrying out hip protocol guidelines in their own homes?

At the community level, occupational therapy researchers should examine how staff and client education and environmental modifications can promote health literacy, enhance safety, and decrease medical complications in specific populations. For example,
• Can increased signage and posting of personal memorabilia decrease the frequency of wandering and getting lost in residential care facilities for elders with dementia?
• Can increased signage and highlighted changes in pavement and ground levels decrease the incidence of falls in senior assisted-living facilities?
• Can educational training sessions for staff members about the use of sensory rooms for agitated clients decrease the incidence of aggressive acts in psychiatric inpatient facilities?
• Can community home safety education programs for independently living seniors increase the likelihood that seniors can remain in their own residences?

Health literacy directly affects client adherence, safety, and satisfaction; intervention cost and time efficiency; and intervention effectiveness. Incongruity between the health literacy of clients and occupational therapy client recommendations can result in decreased health status, increased hospital readmissions, occurrence of medical complications, and the need for additional therapy sessions after discharge. It is essential that occupational therapy researchers begin to compile information about how health literacy influences occupational therapy service provision. Guidelines to promote health literacy in occupational therapy practice must be developed and tested in specific practice settings and with specific clinical populations. We are accountable for this information by virtue of our ethical obligation to provide effective and safe treatment. We are also responsible for the generation of this information if we are to maintain our status as approved service providers reimbursed by managed care, Medicare/Medicaid, and third-party payers. ▲

References