Increasing restrictions in health care financing are forcing health professionals to carefully examine and articulate what constitutes the most effective and appropriate interventions for the persons we serve. When evaluating services for adults who have had a stroke or who have long-term disabilities, it is critical to consider how rehabilitation service needs may vary over time. As durations of acute hospital and inpatient rehabilitation admissions continue to shorten, many persons with stroke may not be receiving the services they need to successfully adjust to community living. Although subacute, outpatient, and home health occupational therapy services are important components to a total rehabilitation program, each component loses its effectiveness if it is provided in isolation of the others. In my experience of providing occupational therapy and advising students during their fieldwork experiences, I have been disappointed to learn about many situations in which persons with stroke received disjointed therapy services that did not address their needs.

The various stages of care in the rehabilitation of stroke survivors or other adults with long-term disabilities need to be viewed as a continuum and integrated to meet persons’ changing needs over time. If not, therapeutic resources will be wasted through duplication of services and a failure to provide the right interventions at the right time.

Recovery After Stroke

A three-phase framework may be helpful for viewing the process of resuming life after a stroke. Though individuals may vary and the phases overlap, determining where each person with stroke is within this process of recovery can improve the effectiveness of our interventions.

This three-phase framework is consistent with the viewpoints that (a) the reestablishment of previous roles and the development of meaningful new roles is critical to coping with long-term disability (Christiansen, 1994; Kielhofner, 1985) and (b) role achievement is a primary goal of occupational therapy intervention for persons with stroke (Acquaviva, 1996; Gibson & Schkade, 1997) and other disabilities (Trombly, 1995). This framework is also consistent with the World Health Organization’s (1980) International Classification of Impairment, Disability, and Handicap (ICIDH). According to the ICIDH, stroke-related impairments are the motor and cognitive residuals of neuropathology; disabilities are the difficulties a person has performing daily life tasks; and handicaps, or societal limitations, are limitations in social role performance.

Phase 1: Focus on “Getting Better”

Early after sustaining a stroke, the person and his or her family members are concerned with preventing future strokes and minimizing the pathology and impairments associated with cerebrovascular accident (CVA). Throughout the course of their lifetimes, people have learned to expect recovery after illness or trauma. Although persons who have had a stroke are prepared to accept that recovery may come only with hard work during rehabilitation, they may find it inconceivable that some stroke-related impairments will never fully resolve.

Stroke rehabilitation begins “as soon as the diagnosis of stroke is established, and life-threatening problems are under control” (U.S. Department of Health and Human Services [DHHS], 1995, p. 3). During early rehabilitation, clients and their family members focus their attention on regaining lost motor, cognitive, and language functions. Hope and determination are major coping strategies at this phase (Elliott, Witty, & Herrick, 1991; Neuhaus, 1997) that help persons harness the effort and discipline necessary for successful participation in demanding physical therapy, occupational therapy, and speech therapy programs. Hope also serves as a buffer against experiencing overwhelming sadness about the sudden catastrophic losses due to the stroke. Although hope facilitates positive coping in early stroke recovery, denial of the possible long-term limitations is a negative coping mechanism at this time. In my experience, persons with stroke who move ahead to the next two phases of recovery are slowly sorting out the long-term implications of continuing their lives with some level of impairment.

Intervention during Phase 1 will be most effective if therapists can capitalize on the client’s determination to maximize recovery, while gently enabling him
or her to begin the process of imagining life with some residual impairments. A primary goal of occupational therapy intervention early in Phase 1 is to educate persons about stroke residuals and normal kinematics of movement, with a focus on ways to prevent secondary impairments (Sabari, 1997). Assisting the person in establishing a daily routine of proper postural alignment and gentle stretch of immobilized muscles can be critical in preventing costly and painful development of abnormal muscle shortening, joint limitations, and orthopedic dysfunction. Teaching and reinforcing the practice of manipulating a paretic hand with the nonparetic hand can prevent edema and circulatory dysfunction. Teaching how to monitor the development of new movement capabilities will increase the likelihood that future recovery of small increments of motor control will be incorporated into functional task performance. Encouraging strategic use of postural adjustments during shifts in center of mass will facilitate the processes of performing transfers, bathing, and dressing.

How many occupational therapists in acute care or short-term rehabilitation facilities neglect to provide these interventions because of pressure to devote primary efforts toward promoting independence in self-care tasks? How many persons with stroke are labeled "uncooperative" or "unrealistic" because 2 weeks after the stroke they prefer to have assistance with dressing or bathing until they have achieved sufficient recovery of motor function to accomplish these tasks the way they have always performed them? The skilled occupational therapist strives for a balance between restorative and compensatory interventions by conveying that both aspects of rehabilitation are fully compatible with one another.

In addition, the skilled therapist establishes self-care goals by collaborating with each client and his or her family members. One client may be determined to toilet independently but have no interest in independent dressing. Another may be interested in achieving sufficient hand function to sign his or her name for financial management activities but be unconcerned about his or her current need for assistance with bathing.

**Phase 2: Coming to Terms With Loss**

Although recovery of motor and cognitive skills can conceivably continue for unspecified periods, most persons with stroke experience a plateau in their recovery within 6 months to 1 year after the episode (DHHS, 1995). To continue a satisfying life, these persons need to realistically acknowledge their current strengths and limitations. This acknowledgment is the first step toward developing techniques for performing daily activities within the constraints of residual impairment. More importantly, it is also the first step toward reestablishing a positive identity and realistic, meaningful life roles. Adjustment during Phase 2 requires a balance between acknowledging one's loss and appreciating one's remaining abilities to actively participate in tasks of daily life.

Still, some studies of persons who are long-term stroke survivors have found that incremental changes in motor and cognitive skills are possible long after the first year (Desmond, Moroney, Sanò, & Stern, 1996; Ferrucci et al., 1993). Those persons who acknowledge only their limitations are at risk of experiencing grief and mourning associated with poststroke depression. Many become so limited by these reactions that they are unable to move forward toward redeveloping realistic and meaningful role identities for themselves.

Most occupational therapists agree that they can facilitate positive adjustment to life after a stroke by offering realistic options for achieving independence in daily tasks, despite residual impairments. The current problem is that self-care training programs are often provided in exclusion of other interventions. Even though recovery is not the focus during Phase 2, small improvements in motor or cognitive function can be translated into functional performance. For example, partial recovery of shoulder control can be harnessed toward more efficient performance of dressing tasks or toward the functional use of a paretic arm in stabilizing materials during bilateral homemaking or work-related tasks. The skillful therapist develops self-care strategies that prevent, rather than aggravate, the development of secondary complications, such as postural malalignment and joint contractions. Furthermore, the exercise and cognitive routines developed during Phase 1 need to be reevaluated and updated during Phase 2 in order to meet the client's current requirements. Finally, the effectiveness of Phase 2 interventions are compromised if they are not preceded by Phase 1-oriented interventions and followed by approaches designed to facilitate progression to Phase 3.

**Phase 3: Reestablishing Social Roles**

The ability to perform a variety of meaningful social roles contributes to defining one's identity and quality of life (Adelman, 1994; Elliott & Barris, 1987). Persons with stroke who resume their lives go through a process of reinventing themselves (Cohn, 1995). After a stroke, many of one's previous life roles can be reconstructed with adaptations. Some roles, however, may not be compatible with such reconstruction. Persons who adjust their lives successfully after stroke learn to sort out which roles they can inhabit and will structure their goals and activities in synchrony with these roles. This often entails developing new roles, or expanding previous ones, to substitute for those that had to be abandoned. Unfortunately, many persons with stroke are not able to perceive themselves in meaningful roles outside of their previous, "normal" status. These persons retreat into a sick role in which they are a burden to their caregivers and from which they derive little life satisfaction.

Occupational therapists can facilitate task performance and role achievement in a variety of ways. After evaluating current levels of motor, cognitive, and perceptual function, the therapist collaborates with the client and his or her family members to determine achievable goals; evaluates the client's living, work, and leisure environments; and recommends or implements adaptations that facilitate performance of tasks to achieve goals. The therapist can also use knowledge about available technologies, such as adapted computer access or automobile adaptations, to enable these persons to function independently in society.

Though persons with stroke may be skeptical about their potential to achieve specific task goals, the occupational ther-
apist’s adaptations and expectations for success can enable these persons to surpass their own original predictions. Throughout the therapeutic process, occupational therapists assist persons with stroke in developing long-term skills for analyzing tasks in relation to their individual strengths and weaknesses and for developing solutions for performing future tasks in new environments.

Cohn (1995), a woman who survived a stroke, described how outpatient occupational therapy intervention provided long after her CVA and initial rehabilitation allowed her to move from Phase 1 into Phases 2 and 3:

My body-image, my self-image, and my self-esteem—these nebulous concepts about myself—were no longer based on reality. They were based on the able-bodied person I had been, and they included a bias against disabled people. (p. 17)

Cohn’s occupational therapist helped her identify that she needed to return to previous roles as mother and homemaker. Together, they identified the tasks she needed to accomplish in order to fulfill these roles:

Her approach of getting me to look after my family to the best of my limited ability in no way clashed with my hopes of future recovery. I would be able to begin looking after my family while I continued to recover. She had enough experience to know I would probably never improve and kept steering me into activities. This lady was giving me answers to questions I was not yet asking. (p. 17)

Early tasks included adapted driving, household management activities, and specific child-care routines: “My self-esteem increased as I took over the running of my home” (p. 17). This sense of accomplishment in her ability to fulfill her roles as mother and homemaker led to the pursuit of other roles. For example, Cohn enrolled for courses at area colleges and became an active member of her community.

Cohn (1995) described that, during Phase 1, “hope was the ‘crutch to take as far as I could toward normal’. I must let it turn into an anchor from which there is no emotional recovery.” (p. 17). Her experience with occupational therapy helped her to resume her life:

I was finally back “in synch.” I had mastered my one-handed environment. My emotions belonged to the disabled lady who was running a home, raising three children, working part-time at a variety of jobs, was an excellent baker and had a better than average knowledge of the American musical theater. Being in synch provided energy for subsequent endeavors. I also was comfortable in my own presence. The eye and the “I” saw the same thing. I could make what I chose of life and was filled with pride and dignity. I may not have as many options as I formerly did, but isn’t the lesson of life learning to do the most you can at a particular time? (p. 17)

Imagine how different this outcome may have been if all of Cohn’s rehabilitation services had been curtailed within the first 6 months after stroke. Would she have been ready to tackle the challenges presented by her occupational therapist if she was not ready to make the transition from Phase 1 to Phases 2 and 3? What if this occupational therapist had not balanced Cohn’s need to maintain some hope for recovery with her need to resume meaningful role performance? How many persons with stroke today are denied the opportunity to benefit from occupational therapy because services are not well matched to where they are in the process of adjusting to life after stroke?

Strategies To Enhance the Effectiveness of Occupational Therapy Intervention

What can occupational therapists do to ensure that persons with stroke receive the right services at the right time? First, therapists need to ensure that services are provided along a smooth continuum, even when they are delivered in different settings. In addition to collaborating with team members from other professions, we need to view each occupational therapist who provides services to a client with stroke as a member of that person’s occupational therapy team. Efficient mechanisms for sharing written documentation are crucial to this collaboration, as is verbal communication between occupational therapists in different care settings. Instead of attempting to “do it all,” therapists at each site can focus on providing those services that are most relevant to each client’s current phase of adjustment. This, of course, requires that therapists take responsibility for ensuring that the next stage of occupational therapy will be provided. In addition, thera-

References


