



# AOTA Evidence Briefs

## Stroke: Focused Questions

*\*A product of the American Occupational Therapy Association's Evidence-Based Literature Review Project*

### SFQ #9

## What therapeutic interventions are effective in remediating social impairments and promoting participation after stroke?

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The search retrieved no studies of therapeutic interventions to remediate social **impairments** (see *Glossary*). The articles reported here bring to readers' attention the importance of social support and engagement in social and leisure activities as factors in recovery from stroke.

### Findings of Selected Studies

Hochstenbach (2000) stated that an adequate social system is important for the recovery of stroke patients. She noted that the social system is not always able to cope with the extra burden, however, and recommended that therapists place more emphasis on empowering the caregiver. She did not suggest interventions to do so, however.

Tsouna-Hadjis, Vemmos, Zakopoulos, and Stamatelopoulos (2000) studied the relationship between family social support and 3 outcome variables: functional status, depression, and social status (mood and social involvement) during the 6-month recovery period after stroke. They assessed, observed, and interviewed 43 patients in the acute stage of stroke recovery and also the patients' significant others before discharge from the hospital and at 1, 3, and 6 months following onset of stroke. After controlling for time since stroke and severity of stroke, they found high levels of support to be **significantly** (see *Glossary*) associated with lower depression, higher functional status, better mood, and greater social involvement. However, they gave no recommendations for intervention.

Clarke, Black, Badley, Lawrence, and Williams (1999) studied the consequences of impairment and disability secondary to stroke on the life activities in the social realm, which they defined as *stroke handicap*, of 145 elderly stroke patients over 1 year. Survivors with more severe stroke impairment, depression, and physical and cognitive disability (as measured by the Functional Independence Measure (FIM™)) reported greater handicap at both the 3-month and 1-year evaluations. The researchers recommended that interventions be directed at reducing physical dependence and depression as a way to enhance the long-term social well-being of stroke survivors.

Bays (2001) synthesized 39 studies that examined quality of life after stroke. Quality of life has been strongly associated with social involvement and leisure activity. Variables positively associated with quality of life for the stroke survivors were independence in activities of daily living (ADL), increased functional ability, social support, and health care resources. Twenty-two percent to 73% of the variance in stroke survivors' quality of life was explained by the presence of three factors: depression; functional ability, especially of the upper extremities; and socialization, in particular, leisure activity. Bays recommended interventions to encourage independence, manage depression, and foster interpersonal relationships.

The latter two articles both recommended therapy to decrease depression, increase independence in ADL, and enhance social well-being. Studies previously reviewed (Trombly & Ma, 2002) showed that occupational therapy directed at increasing independence in valued leisure activities also increased independence in relevant ADL and decreased depression.

## Clinical Application

The studies reviewed here only tangentially address the question posed at the beginning; however, they represent the “best evidence” at this time. Improvement of social participation after stroke may be facilitated by ADL independence, reduction of depression, and engagement in social activities. Much more research is needed to verify these hypotheses.

## Glossary

**impairments**—“abnormalities of body structure and appearance and with organ or system function, resulting from any cause” (*International Classification of Impairments, Disabilities, and Handicaps*, 1980, p. 14).

**significance (or significant)**—a statistical term; refers to the probability that the results obtained in the study are not due to chance but to some other factor (such as the treatment of interest). A significant result is one that is likely to be generalizable to populations outside the study.

Significance should not be confused with clinical effect. A study can be statistically significant without having a very large clinical effect on the sample. For example, a study that examines the effect of a treatment on a client’s ability to walk may report that the participants in the treatment group were able to walk significantly longer distances than the control. However, if you read the study you may find that the treatment group was able to walk, on average, 6 feet, while the control group was able to walk, on average, 5 feet. While the outcome may be statistically significant, a clinician may not feel that a 1-foot increase will make his or her client functional.

## References

### Articles for Focused Questions (not ranked)

- Bays, C. L. (2001). Quality of life of stroke survivors: A research synthesis. *Journal of Neuroscience Nursing*, 33 (6), 310–316.
- Clarke, P. J., Black, S. E., Badley, E. M., Lawrence, J. M., & Williams, J. I. (1999). Handicap in stroke survivors. *Disability and Rehabilitation*, 21(3), 116–123.
- Hochstenbach, J. (2000). Rehabilitation is more than functional recovery. *Disability and Rehabilitation*, 22(4), 201–204.
- Trombly, C. A., & Ma, H-I. (2002). A synthesis of the effects of occupational therapy for persons with stroke, Part I: Restoration of roles, tasks, and activities. *American Journal of Occupational Therapy*, 56, 250–259.
- Tsouna-Hadjis, E., Vemmos, K. N., Zakopoulos, N., & Stamatelopoulos, S. (2000). First-stroke recovery process: The role of family social support. *Archives of Physical Medicine and Rehabilitation*, 81, 881–887.

## Further Reading

- Robinson, R. G., Murata, Y., & Shimoda, K. (1999). Dimensions of social impairment and their effect on depression and recovery following stroke. *International Psychogeriatrics*, 11, 375–384.

This work is based on the evidence-based literature review completed by Catherine A. Trombly, ScD, OTR/L, FAOTA.

For more information about the Evidence-Based Literature Review Project, contact the Practice Department at the American Occupational Therapy Association, 301-652-6611, x 2040.

