AOTA Evidence Briefs
Stroke

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

S #16

Client-centered intervention may improve activities of daily living and discharge environment for stroke clients

Gibson, J. W., & Schkade, J. K. (1997). Occupational adaptation intervention with patients with cerebrovascular accident: A clinical study. *American Journal of Occupational Therapy, 51*, 523–529.

Level IIB3b

Nonrandomized comparison of two or more groups or treatments in a quasi-experiment without randomization to group, condition, or sequence; 20 or more participants per condition or group; low internal validity; high external validity

Why research this topic?

Guidelines for appropriate health care for stroke clients recommend, among other things, that "'the skills taught be meaningful to the patient . . . and practice be structured to . . . encourage transfer among environments and contexts used by the patient'" (p. 524). Occupational Adaptation is a frame of reference in occupational therapy that incorporates meaningfulness and encourages transfer. In this approach, clients identify a role that is of primary importance to them (e.g., grandmother) and a context or an environment in which they carry out that role. Performing the role then becomes the focus of intervention. The intervention targets a combination of performance skills (e.g., strength and coordination) and occupational activities related to the role and the context. Further, clients as well as the therapist regularly evaluate their progress in carrying out the requirements of their role and context. Gibson and Schkade (1997), of Gibson Therapy Services (Hot Springs Village, Arizona) and Texas Woman's University (Denton), respectively, wanted to compare the effectiveness of the Occupational Adaptation approach with that of traditional occupational therapy.

What did the researchers do?

Adhering to the guidelines just described, the researchers designed a quasi-experimental study to make the comparison. The participants in the study were 25 former patients and 25 current patients of a 465-bed metropolitan hospital with an ethnically and socioeconomically diverse patient population. All had been admitted to the acute care unit after a stroke and were first seen for occupational therapy treatment in that unit. They then were seen in rehabilitation in the same facility. All were at least 60 years old, and all received the customary amount of occupational therapy intervention during acute care. Twenty of the participants were men, 30 women. They averaged 74.1 years in age.

The 25 former patients constituted the control group. They were selected through a review of the charts of the most recently discharged patients with stroke until the desired number met the criteria for inclusion. The other 25, who constituted the treatment group, had been admitted to acute care after the hospital implemented the occupational adaptation approach to treatment. Both groups received treatment daily (duration of sessions not reported) for the length of their stay in rehabilitation. The average length of stay for the treatment group was 2.12 weeks, and for the control group 3.28 weeks. (The latter figure was **significantly** [*see Glossary*] greater.)

The outcome areas of interest were *activities of daily living* ([ADL], as measured by a scale of the hospital's own creation); and *environment* (as measured by the restrictiveness of the environment to which participants were discharged—nursing home, assisted living, home, etc.).

What did the researchers find?

The occupational adaptation group achieved significantly higher levels of functional independence than the control group, and a significantly larger number were discharged to less restrictive environments.

What do the findings mean?

For therapists and other providers, the findings suggest that a client-centered approach may have greater effects in improving stroke clients' performance of ADL and allowing them to be discharged to less restrictive environments. Focusing on clients' roles and contexts, letting clients regularly evaluate their progress toward treatment, and targeting combinations of performance skills and occupational activities seemed to be particularly important elements of the approach.

What are the study's limitations?

First, its quasi-experimental design precludes establishing a cause-and-effect relationship between the occupational adaptation approach and the outcomes obtained. Second, the therapists who delivered the treatment may have known the study's hypothesis and unconsciously influenced the results. Third, history may have influenced the outcome. "History is a threat when an observed effect might be due to an event (or events) which takes place between the pretest and the posttest when this event is not the treatment of research interest" (Cook & Campbell, 1979, p. 51). In this case, because the patients were treated in different periods, they may have experienced different histories. That is, different procedures and practices may have existed in hospital routine or rehabilitation that could have accounted for the outcome.

Reference

Cook, T. D., & Campbell, D. T. (1979). *Quasi-experimentation: Design and analysis issues for field settings.* Boston: Houghton Mifflin.

Glossary

significance (or significant)—A statistical term, this 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, six feet, while the control group was able to walk, on average, five feet. While the outcome may be statistically significant, a clinician may not feel that a one foot increase will make his or her client functional.

■ Terminology used in this document is based on two systems of classification current at the time the evidence-based literature reviews were completed: *Uniform Terminology for Occupational Therapy Practice—Third Edition* (AOTA, 1994) and *International Classification of Functioning, Disability and Health (ICIDH-2)* (World Health Organization [WHO], 1999). More recently, the *Uniform Terminology* document was replaced by *Occupational Therapy Practice Framework: Domain and Process* (AOTA, 2002), and modifications to *ICIDH-2* were finalized in the *International Classification of Functioning, Disability and Health* (WHO, 2001).

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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.

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