



# AOTA Evidence Briefs

## Older Adults

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

### OA#4

## **Intensive occupational therapy in the home benefits persons with rheumatoid arthritis**

---

Helewa, A., Goldsmith, C. H., Lee, P., Bombardier, C., Hanes, B., Smythe, H. A., & Tugwell, P. (1991). Effects of occupational therapy home service on patients with rheumatoid arthritis. *Lancet*, *337*, 1453–1456.

### **Level: IA1b**

Randomized control trial, 20 or more participants per condition, high internal validity, moderate external validity

### **Why research this topic?**

At the time of this study, little information was available on the benefits of occupational therapy delivered in the home for persons with rheumatoid arthritis; specifically, the impact on function, pain, depression, and health.

### **What did the researchers do?**

Helewa and his colleagues (1991), variously affiliated with the University of Western Ontario (London), McMaster University (Hamilton, Ontario), the Arthritis Society Occupational Therapy Service (Toronto), and Wellesley Hospital (Toronto), designed a study to investigate the effects of a home occupational therapy service on patients with rheumatoid arthritis.

The participants in the study were drawn from a pool of 427 patients referred to the Arthritis Society's home occupational therapy service between August 1984 and September 1986. The researchers excluded 272 patients for legitimate reasons (e.g., unstable clinical status or concomitant therapy), and 50 of the remaining patients chose not to participate. That left 105 participants to start the study. All met the American Rheumatism Association's criteria for rheumatoid arthritis. Also, all were between 18 and 70 years of age. Fourteen were men, 91 women. Four participants dropped out before the completion of the study.

The researchers randomly assigned the participants to an experimental group or a control group. The average age of the former was 52.7 years; the average age of the latter was 55.3 years.

The experimental group received intensive occupational therapy at home for 6 weeks. It then received a less-intensive follow-up program for 6 weeks. The occupational therapy intervention consisted of an evaluation of level of function and disease activity; a physical examination of affected joints; a detailed functional evaluation of dressing, hygiene, feeding, communication, locomotion/transfers, homemaking, use of splints, work and leisure, and housing; formulation of a problem list and a treatment plan; and implementation of the treatment plan. Four occupational therapists delivered the services.

The control group received no treatment for 6 weeks. Then it received occupational therapy for 6 weeks.

The outcome areas of interest were *functional level* (as measured by a specially developed questionnaire); *active joints*, *grip strength*, *erythrocyte sedimentation rate*, *morning stiffness*, and *functional change* (as indicated by a “pooled index,” a single score representing the results of five separate measures); *pain* (as measured by a visual analogue scale); *depression* (as measured by the Beck Depression Scale); and *health* (as measured by the Stanford Health Assessment Questionnaire). Independent assessors took the measures before the intervention began, 6 weeks after it began, and 12 weeks after it began.

### **What did the researchers find?**

At 6 weeks the experimental group had improved its functional level **significantly** (see *Glossary*) more than the control group had. At 12 weeks (after the control group had received intensive occupational therapy), there was **no significant** (see *Glossary*) difference between the two groups. At 6 weeks the experimental group had improved its pooled index significantly more than the control group. At 12 weeks the control group had improved its pooled index significantly more than the experimental group.

### **What do the findings mean?**

For therapists and other providers, the findings suggest that patients with rheumatoid arthritis benefit from occupational therapy services delivered in their home. The benefits last at least 6 weeks.

### **What are the study’s limitations?**

The study is well controlled with minimal threats to internal validity. That is, the outcome is primarily due to the intervention rather than to other factors.

## **Glossary**

**nonsignificant or no significance**—A statistical term that refers to study findings that are likely to be due to chance differences between the groups rather than to other factors (like the treatment of interest). A nonsignificant result is not generalizable outside the study. Like significance, a nonsignificant result does not indicate the clinical effect. Often, studies will show nonsignificant results, yet the treatment group’s mean will be better than the control group’s. This is usually referred to as a trend in the right direction. Because significance is closely determined by sample size, nonsignificant results would often become significant if the sample size were increased.

**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, 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 believe that a 1-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).

This work is based on the evidence-based literature review completed by Mary Law, PhD, OT(C), Debra Stewart, BSc, MSc, and Brenda McGibbon Lammi, BPHE, BHSc (OT), MSc.

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.

