



AOTA Evidence Briefs

Cerebral Palsy

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

CP #15

Parents' self-rating of compliance best predicts effective outcome

Law, M., & King, G. (1993). Parent compliance with therapeutic interventions for children with cerebral palsy. *Developmental Medicine and Child Neurology*, 35, 983–990.

Originally designed as an RCT; the analysis of this data combined both groups.

Why research this topic?

As health care costs rise, reliance on therapy regimens to be carried out at home by parents may increase. Parents' compliance with such regimens thus becomes an important variable in outcomes for children. Some data are available on compliance, but not much is known about the relationship between compliance and effective outcomes. To draw conclusions about this relationship, researchers need objective measures that can be used across studies.

What did the researchers do?

Law and King (1993), of McMaster University (Hamilton, Ontario, Canada) and the University of Western Ontario (London) respectively, designed a study to compare different raters and different measures of parental compliance and their relationship to functional outcomes. They conducted the research as part of a larger study of the effects of intensive neurodevelopmental therapy and casting on hand function (see Law et al., 1991). The study involved 72 participants (28 boys and 44 girls) between 18 months and 8 years of age (no mean reported).

The outcome areas of interest were parents' rating of their compliance with a home program; therapists' rating of parents' compliance; children's attendance at therapy sessions; hours of daily cast-wear; and number of days that parents completed log books.

What did the researchers find?

Three correlations between the five measures of compliance were **significant** (see *Glossary*): (1) parents' rating of their compliance and their reports of daily cast-wear; (2) parents' rating of their compliance and the number of days that they completed the log-book; and (3) parents' and therapists' ratings of compliance.

On the contribution of compliance to the outcome of hand function, only one measure of compliance was a significant predictor: parents' rating of their compliance. That is, children whose parents reported a higher degree of compliance showed greater improvement in hand function.

What do the findings mean?

■ The findings suggest that “clinicians should listen to what parents say about their adherence to a home-therapy regimen” (p. 988). Further, the findings suggest that attendance at therapy sessions may be the least useful measure of compliance.

Therapists and other providers may find the study's parental rating measure helpful. “It is short and easy to use” (p. 989).

- The findings should boost confidence in funding research that employs parents' self-rating as a measure of compliance. The findings also suggest some directions for research: investigation of the applicability of the study's parental rating measure to outcomes other than hand function.

What are the study's limitations?

- Generalization limited by diagnosis, age of child, and geographical area.
- Descriptive study done in conjunction with a well-designed RCT (see previous article).

GLOSSARY

significance (or significant)—A statistical term that 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.

- 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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