



AOTA Evidence Briefs

Children With Behavioral and Psychosocial Needs

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

PSYCH #1

Evidence-Based Review of the Literature on Children with Behavioral and Psychosocial Needs

Leisure education can increase the frequency of activity involvement of people with mental retardation

Anderson, S. C., & Allen, L. R. (1985a). Effects of a leisure education program on activity involvement and social interaction of mentally retarded persons. *Adapted Physical Activity Quarterly*, 2, 107–116.

Level: IA1a

Randomized controlled trial, 20 or more participants per condition, high internal validity, high external validity.

Why research this topic?

In general, people with mental retardation find it difficult to engage in leisure activity. This problem may be attributable to delays in acquiring social skills. Researchers have studied a variety of methods to enhance those skills. Research on one such method, a carefully planned recreation program, has been inconclusive. The method may have failed because the participants did not learn “why, how, and where to recreate” (p. 108).

What did the researchers do?

Anderson and Allen (1985a), of Indiana University (Bloomington) and Temple University (Philadelphia), respectively, designed a study to investigate the effectiveness of a leisure education program designed by K. F. Joswiak in increasing the activity involvement and the social interaction of a group of people representing various levels of mental retardation. They conducted the study at a state residential facility, using a special random-sampling technique to select 40 participants from seven residential units with a total population of 243. Thirty-two of the participants were male, and 8, female. The age range was 13–64 years (average age was 35). They represented all classifications of retardation: educable (17%), trainable (20%), and severely or profoundly retarded (58%). (Two percent were of undetermined classification.)

The researchers randomly assigned the participants to a treatment group or a **control group** (see *Glossary*). Members of the treatment group participated in the leisure education program in addition to following their daily routine. The program consisted of two 80-minute sessions per week for 9 weeks. Specially trained rehabilitation therapists conducted them. They focused on “awareness and identification of both personal and institutional leisure resources” (p. 111). They also gave major attention to skill development and transportation. Among the skills taught were individual and group activities (e.g., sewing and field trips); table games (e.g., puzzles and building blocks); active games (e.g., softball and bean-bag toss); and use of playground equipment.

Members of the control group simply followed their daily routine.

The researchers were interested in *frequency and duration of social interactions* (as measured by an instrument previously used by Anderson and two other colleagues) and *frequency and duration of activity involvement* (as measured using M. S. Johnson's procedure). Measures were taken before and after the intervention.

What did the researchers find?

In comparisons between the two groups, the leisure education program had a **significant** (see *Glossary*) positive effect on frequency of activity involvement but no effect on duration of activity involvement, frequency of social interaction, or duration of social interaction. (The researchers used a more liberal level of significance than is customary because their study was exploratory and they wanted to detect trends.)

In comparisons across levels of retardation, regardless of group, the educable participants had a significantly higher duration of activity involvement than the participants with severe or profound retardation.

What do the findings mean?

For therapists and other providers, the findings suggest that leisure education can increase the frequency of activity involvement of people with mental retardation but not the duration of activity involvement or the frequency or the duration of social interaction.

The researchers make four recommendations to increase the effectiveness of Joswiak's program: that it emphasize activities that directly address social skills development; that the length of the training be substantially increased; that professionals using the program take into account the finding that duration of activity involvement was related to level of retardation; and that professionals intervene following the program to encourage participants to use their skills.

What are the study's limitations?

The period of the treatment program might be too short to facilitate the participants' social skills.

GLOSSARY

control group—A group that received special attention similar to that which the treatment group received, but did not receive treatment.

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 (e.g., the treatment of interest). A significant result 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 those in the control group. However, after reading the study one may find that the treatment group was able to walk, on average, 6 feet, whereas the control group was able to walk, on average, 5 feet. Although the outcome may be statistically significant, a clinician may not feel that a 1-foot increase will make his or her client functional.

This work is based on the evidence-based literature review completed by Ming-Hui Kuo, MS, OTR.

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



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