AOTA Evidence Briefs

Children With Behavioral and Psychosocial Needs

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

PSYCH #6

Severely disturbed children can learn social problem-solving skills

Amish, P. L., Gesten, E. L., Smith, J. K., Clark, H. B., & Stark, C. (1988). Social problem-solving training for severely emotionally and behaviorally disturbed children. *Behavioral Disorders*, *13*, 175–186.

Level: IIA2a

Nonrandomized controlled trial, 2 groups, 20 or more participants per condition, moderate internal validity, high external validity.

Why research this topic?

Researchers have found that children who have negative peer relationships adjust poorly in adulthood and show "a greater tendency to use mental health services as adolescents and young adults" (p. 175). Social problem solving is one set of skills that is thought to contribute to positive peer relations. Recently, interest in using social problem-solving interventions to treat clinical populations has arisen. Because emotionally disturbed children display maladaptive behavior patterns personally and socially, they are good candidates for such interventions. However, they may require a program that is more behaviorally based than traditional social problem solving.

What did the researchers do?

Amish and her colleagues (1988), all affiliated with the University of South Florida (Tampa), conducted a study to evaluate the integration of training in social problem solving with behavioral teaching methods.

The participants in the study were 50 severely emotionally disturbed children enrolled in two day treatment centers for such children. Forty-four were boys, and 6, girls. Their average age was 9.5 years. Twenty-five children in four classrooms at one center constituted the experimental group; 25 children in five classrooms at the other center constituted the **control group** (see *Glossary*). The schools were closely matched on population and programming. Ten children were dropped after the study began, 7 from the experimental group, 3 from the control group.

The experimental group received an intervention consisting of 15 lessons that taught a systematic approach to solving interpersonal problems using the following steps: "(a) Say how you feel and what the problem is; (b) Decide on your goal; (c) Stop and think before you act; (d) Think of as many solutions as you can; (e) Think ahead to what will probably happen next; and (f) When you have a really good solution, try it!" (p. 177). Each lesson was 40 minutes long. Classroom teachers taught the lessons twice a week for 6 weeks, then once a week for 3 weeks. They used a variety of methods: visual aids, class discussions, games, role-plays, videotapes, modeling, and feedback.

Presumably, the control group received instruction and counseling services as usual.

The outcome areas of interest were *social problem-solving skills* (as measured by a structured interview, a role-play assessment, and simulated problem situations); *adjustment* (as measured by a classroom rating scale, the Health Resources Inventory, and a sociometric rating); and *relationship between problem solving and adjustment.* Measures were taken before and after the intervention.

What did the researchers find?

On the measures of problem-solving skills, the experimental group gained **significantly** (see *Glossary*) more than the control group on the components of the interview and role-play measures that assessed ability to generate solutions. "Specifically, they generated more alternative and variant solutions" (p. 180). However, on the role-play measure, the experimental group gave significantly more irrelevant solutions than the control group did.

In terms of the content of the solutions, the experimental group generated significantly more antisocial solutions on both the interview and the role-play measure, whereas the control children offered more prosocial solutions on the interview.

Regarding effectiveness of solutions, the control group generated significantly more effective solutions than the experimental group on the role-play.

On the measures of adjustment, after the intervention the control group received significantly better ratings than the experimental group on the Good Student subscale of the Health Resources Inventory, and on the Shy-Anxious and Learning subscales and the total scale of the classroom rating scale.

On the measures of the relationship between problem solving and adjustment, only two correlations were significant for each group. That "number fail[ed] to exceed change" (i.e., the number did not meet the threshold for a judgment that the two phenomena were related) (p. 182).

What do the findings mean?

For therapists and other providers, the findings suggest that severely emotionally disturbed children can learn to generate solutions to problems. However, the findings do not indicate whether they can learn to generate *appropriate* solutions.

The researchers suggest that to make the intervention worthwhile for this population, teachers must aggressively model and reinforce better, more adaptive solutions. Also, the training must translate into gains in adjustment.

What are the study's limitations?

The study has two limitations. First, the simulated problem situations used to test the children after the intervention were designed to be used *only* for testing after an intervention. The researchers also used them *before* the intervention, as part of a separate study. The children thus had prior knowledge of the model, which involves deception.

Second, the teachers who rated the children were aware of the children's assignment. Their knowledge may have influenced their judgment.

GLOSSARY

control group—A group that received special attention similar to that which the treatment group received, but did not receive the 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 Shari Nudelman, OTR/L, and Marian Arbesman, PhD, OTR/L, with contributions from 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.