

PSYCH #8

Occupational therapy may produce behavioral change in chemically dependent adolescents

Gangl, M. L. (1987). The effectiveness of an occupational therapy program for chemically dependent adolescents. *Occupational Therapy in Mental Health*, *7*, 67–88.

Level: IIIB2b

Nonrandomized controlled trial, less than 20 participants per condition, moderate internal validity, moderate external validity.

Why research this topic?

To be effective with adolescents who are dependent on alcohol or drugs, occupational therapy programs must produce changes in behavior that are consistent with abstinence and emotional and social development. They also must be evaluated regularly to ensure that they are meeting their own goals and those of clients.

What did the researcher do?

Gangl (1987), affiliated with the University of Minnesota, designed a study to determine whether an occupational therapy program that targeted work skills and interpersonal skills was effective in producing behavioral change in chemically dependent adolescents and, if so, what factors caused the changes. The participants in the study were 33 adolescents who were admitted over a nine-month period to a residential treatment center for young people 13–18 years of age who are abusing drugs or alcohol and experiencing related emotional problems. Typical length of stay for residents was 4 to 6 months. Twenty of the participants were males, and 13, females. They ranged in age from 13.6 to 17.3 years of age (no average reported).

The participants joined one or two occupational therapy groups (Work Skills and Relationship Skills), which met weekly. Together, each participant and the therapist chose which group the participant would join first, on the basis of the participant's goals. Once a month, the participant, the participant's group, and the therapist reviewed the participant's progress. If the participant had made enough progress, he or she could transfer to the other group or leave the occupational therapy program.

In the Work Skills Group, the participants chose and carried out activities (e.g., working with leather or wood) to improve their prework skills, such as ability to follow directions and tolerance for frustration. At the end of each session, they took part in a group discussion of how much they thought they had progressed toward their goal of the day and how the activity related to attainment of that goal.

In the Relationship Skills Group, the participants worked together in various activities, such as craft projects, cooking, and insight-oriented exercises. The focus was skills like leadership, socialization, and expression of feelings. The activities themselves had a theme each week—for example, group cohesion, communication, or conflict resolution. The researcher was interested in the following outcome areas: *general behavior* (e.g., appearance, punctuality, and safety awareness), *interpersonal behavior* (e.g., independence, assertiveness, and quantity of verbalization), and *work behavior* (e.g., **engagement** [see *Glossary*], problem solving, and follow-through) (all as measured by the Jamestown Occupational Therapy Assessment, which includes 8 items on the general behavior subscale, 18 items on the interpersonal behavior subscale, and 22 items on the work behavior subscale). Measures were taken before and after the intervention.

What did the researcher find?

All the participants **significantly** (see *Glossary*) improved on 16 (one third) of the 48 assessment items (1 under general behavior, 8 under interpersonal behavior, and 7 under work behavior). Further, they all significantly improved on each subscale as a whole (general behavior, interpersonal behavior, and work behavior).

The 22 participants who had received 10 or more days of occupational therapy also significantly improved on 16 of the assessment items (2 under general behavior, 8 under interpersonal behavior, and 6 under work behavior) and on each subscale as a whole.

Members of the Work Skills Group attended an average of 22 days. These participants significantly improved on four items of the work behavior subscale and on the work behavior subscale overall. Members of the Relationship Skills Group attended an average of 15 days. They significantly improved on two items of the general behavior subscale and three items of the interpersonal behavior subscale.

The participants who completed more goals demonstrated more change. Among all participants, there were significant correlations between goal completion and six items and between goal completion and scores on the interpersonal behavior subscale overall.

The older participants demonstrated significantly more independence than the younger ones, and they showed significantly less interest in activities.

The participants who were involved in both groups showed significantly more changes in interpersonal behavior than those who were involved in one group only.

The participants who completed the program showed significantly more changes in behavior than those who did not.

What do the findings mean?

For therapists and other providers, the findings suggest that occupational therapy targeted at work skills and relationship skills can produce behavioral change in adolescents who are chemically dependent and emotionally disturbed.

What are the study's limitations?

The study has five limitations. First, there was no **control group** (see *Glossary*), and the participants were not randomly assigned to groups. Second, the size of the sample was small. Third, the researcher acted as the therapist and also conducted the assessments. She may have introduced bias into the scores. Fourth, the study used a nonstandardized assessment tool. Finally, the study did not control for the effects of other treatments that the participants received at the center.

GLOSSARY

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

engagement—The amount of time a child attends to materials, interacts with peers and adults, or otherwise remains involved with his or her environment in a developmentally and contextually appropriate manner.

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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