



AOTA Evidence Briefs

Substance-Use Disorders

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

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Preventive family-based intervention may decrease initiation of alcohol use and subsequent misuse by adolescents who have not previously drunk alcohol

Loveland-Cherry, C. J., Ross, L. T., & Kaufman, S. R. (1999). Effects of a home-based family intervention on adolescent alcohol use and misuse. *Journal of Studies on Alcohol*, Supp. No. 13, 94–102.

Level: IA2a

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

Why research this topic?

School-based programs aimed at preventing alcohol abuse by adolescents have met with only modest success. Further, the family exercises a strong influence on adolescents' choices regarding alcohol use. Thus, interest in family-based intervention programs has grown. However, there have been few longitudinal studies of the effectiveness of such programs.

What did the researchers do?

Loveland-Cherry, Ross, and Kaufman (1999), variously affiliated with the University of Michigan (Ann Arbor) and the College of Charleston (South Carolina), decided to evaluate a family intervention to decrease use or misuse of alcohol by adolescents. They recruited participants for their study from the fourth grades of three midwestern school districts. The sample included eight schools from an urban district, eight from a suburban/rural district, and five from a rural district. Eight hundred ninety-two children and their families began the study. Complete data on 428 were available at the final measurement, 5 years later. One hundred ninety-seven of the children were boys, 231 girls.

The researchers randomly assigned the children to a family intervention group or a **control group** (see *Glossary*). The control group received no intervention. The family intervention group received a “universal” intervention—that is, an intervention “targeted at the general population that focus[es] on primary prevention” (p. 95). The goal was to nurture family assets that are thought to maximize protective factors and minimize risk factors and thus to build the adolescents' competencies to decrease alcohol use or misuse. Protective factors include “a cohesive, supportive family environment . . . ; clear rules for expected behavior . . . ; parental monitoring . . . ; and parents' knowledge of the predictors and consequences of adolescent alcohol use.” Risk factors include “permissive or inconsistent parental discipline . . . and parental alcohol use and approval of adolescent alcohol use” (pp. 94–95). The intervention consisted of three sessions in the home, each an hour long; family meetings following the sessions; and follow-up telephone calls from the person conducting the intervention. The sessions focused on parenting skills, family functioning, and factors related to alcohol use or misuse. Parents learned a “general format for family meetings and were provided with topics for two meetings to be held before the next in-home session” (p. 96). The goal was to provide adolescents with an environment in which they knew what behaviors were acceptable and expected, in which parents provided support, and in which parents were concerned and involved with their children. After the sessions, parents held two family meetings before the next in-home session, for which they had learned a general format and were provided with topics for two meetings to be held.

Three years into the study, when the children were in 7th grade, a booster session occurred. It was similar to the original family intervention but revised for middle adolescents and their families. This session included discussion of the changes associated with transition from one level of schooling to another and with normal adolescent development.

The outcomes areas of interest to the researchers were *alcohol use* (as computed from survey questions about the quantity and the frequency of consumption over the previous year), and *alcohol misuse* (as indicated by the average score from eight survey questions asking about such behaviors as overindulgence, trouble with family, and trouble with peers).

What did the researchers find?

In terms of alcohol use, regardless of group, students who said they had drunk previously showed a **significant** (see *Glossary*) decrease in alcohol use from grades 4 to 5. In contrast, students who said they had not drunk previously reported a slight but significant increase over the same year. At grade 6, students in the control group who said they had drunk previously reported significantly lower rates of alcohol use than students in the family intervention group. Starting in grade 7, though, students in the family intervention group who said they had not drunk previously reported significantly less use, whereas students in the control group who said they had not drunk previously showed significantly more use.

In terms of alcohol misuse, regardless of group, students who said they had drunk previously showed a significant decrease in alcohol misuse from grades 4 to 5. During the same year, students in the family intervention group who said they had drunk previously reported significantly less misuse of alcohol and fewer drinking problems than their counterparts in the control group reported. In contrast, students who said they had not drunk previously had a very slight but significant increase in alcohol misuse from grades 4 to 5. Students in the family intervention group reported lower rates of misuse than students in the control group. At grade 6, though, students in the control group reported lower rates of alcohol misuse than students in the family intervention group.

Overall, the intervention produced a positive, delayed effect on students who had not drunk previously. By grade 7, those in the family intervention group reported somewhat less alcohol misuse than their peers in the control group. By grade 8 the difference was more pronounced.

The level of alcohol misuse among students in the family intervention group who had drunk previously continued to increase after their parents received the booster intervention (between grades 7 and 8). So did the level of misuse among their peers in the control group who had drunk previously, although the family intervention group overall level of misuse was lower.

What do the findings mean?

For therapists and other providers, the findings suggest that a preventive family-based intervention can decrease initiation of alcohol use and subsequent misuse by adolescents who say they have not previously drunk alcohol.

What are the study's limitations?

The study has one limitation: 19% of the families dropped out of the study. It was not clear whether those who dropped out differed from those who remained.

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.

■ 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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