AOTA Evidence Briefs
Substance-Use Disorders

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

SU 19

Hospital-based intervention may variably promote abstinence and help-seeking, and reduce alcohol consumption, drinking days, and negative consequences

Welte, J. W., Perry, P., Longabaugh, R., & Clifford, P. R. (1998). An outcome evaluation of a hospital-based early intervention program. *Addiction*, *93*, 573–581.

Level: IIA2a

Non-randomized control trial, 2 groups, 20 or more participants per condition, moderate internal validity, high external validity

Why research this topic?

Research findings amassed by the late 1980s challenged the cost-effectiveness of intensive treatment, so attention turned to introducing screening and brief interventions into general health care settings. In 1988, the State of New York's Division of Alcoholism and Alcohol Abuse initiated a pilot project, the Health Care Intervention Service (HIS), to identify and intervene with hospital patients whose health was at risk because of alcohol use. Implemented in nine hospitals across the state, the project involved use of specialized substance abuse teams, provision of inservice training to hospital staff, screening of all patients to identify those who were candidates for full intervention (including referral for treatment) or "risk reduction" intervention (education, not treatment), and implementation of appropriate treatments.

What did the researchers do?

Welte, Perry, Longabaugh, and Clifford (1998), of the Research Institute on Addictions (Buffalo), conducted an outcome study of the pilot project after 3 years of operation. Four HIS hospitals and three other hospitals were sites for the research. At the HIS hospitals, the researchers asked patients who screened positive for being at risk of alcohol or substance abuse to participate. At the nonHIS sites, the researchers randomly selected patients newly admitted to the hospital and invited them to participate. They retained for follow-up only patients who had been drinking in the last 6 months and had either a CAGE (CAGE, a screening questionnaire, is the pneumonic that represents the four questions used to identify an alcoholic) score of 1 or more, or an entry in their medical chart indicating a history of alcohol abuse or other drug use. Six hundred seventy-three patients were retained. Of these, 169 were **lost to follow-up** (see *Glossary*). The final sample consisted of 485 patients, 324 men and 161 women. Their average age was 39.9 years.

The researchers analyzed data for three groups: (1) those receiving the full intervention, (2) those receiving the risk reduction intervention (both in HIS hospitals), and (3) a comparison group (those in non-HIS hospitals). Full intervention involved helping the patient overcome denial, clarifying the difference between the patient's current condition and his or her preferred condition, setting goals for improvement, discussing appropriate treatment, and referring the patient for treatment. Risk reduction intervention involved providing factual information on the risks of alcohol use and suggesting strategies for avoiding excessive drinking.

The outcome areas of interest to the researchers were *average daily alcohol consumption in the 6 months before the baseline and follow-up interviews*, *the proportion of days in the 6 months before the interviews on which the patients drank any alcohol*, *whether or not the patients drank any alcohol in the 6 months before the interviews*, *the proportion of days in the 6 months before the interviews on which the patients drank 6 or more drinks*, *the drinking consequences score for the 6 months before the interviews* (as measured by the Short Index of Problems

[SIP-R] scale), and *extent of help that patients received for alcohol-related problems after they left the hospital.* Measures were taken in interviews before entry into the study and 6 months later.

What did the researchers find?

The participants in the full intervention group reduced the number of days on which they drank any alcohol from 100% before the study to 73% at follow-up. Comparable figures for the comparison group were 100% and 83%. The difference was **significant** (see *Glossary*).

The participants in the full intervention group also reduced the number of days on which they drank six drinks or more, from 50% to 20%. Comparable figures for the comparison group were 17% and 13%. This difference too was significant.

Further, the participants in the full intervention group sought significantly more help than the comparison group.

The participants in the risk reduction group sought significantly less help than the comparison group. The participants in the risk reduction group who were more dependent on alcohol before the study reduced their alcohol consumption, their proportion of drinking days, and their negative consequences significantly more than the participants in the comparison group did.

What do the findings mean?

For therapists and other providers, the findings suggest that among hospital patients who abuse alcohol, full intervention can achieve abstinence, decrease drinking days, and promote seeking of help. The results also suggest that among patients who are at high risk of alcohol dependence, brief intervention can reduce alcohol consumption, drinking days, and negative consequences.

What are the study's limitations?

The study has one limitation: The protocol for the interventions was not well described. Thus, the intervention cannot be replicated.

GLOSSARY

lost to follow-up—Participants who are lost to follow-up may differ from those who remain in the study; for instance, they may be sicker or have family members who are less supportive. If those who were lost to follow-up remained in the study, the results might have been different. In general, a study with more than 20% lost to follow-up is probably biased.

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).

This work is based on the evidence-based literature review completed by Virginia Stoffel, MS, OTR, FAOTA and Penelope Moyers, EdD, OTR, FAOTA.

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

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