



AOTA Evidence Briefs

Substance-Use Disorders

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

SU 18

No treatment may be as effective as brief intervention with booklet, brief intervention with one-on-one advice, and combination of the two

Watson, H. E. (1999). A study of minimal interventions for problem drinkers in acute care settings. *International Journal of Nursing Studies*, 36, 425–434.

Level: IIA2a

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

Why research this topic?

Problem drinkers frequently do not see treatment until their problems have become severe. “As a result, treatment is often unsuccessful and costly” (p. 425). Research suggests that brief interventions are a useful treatment for problem drinkers. However, no published reports have analyzed the relative effectiveness of various kinds of brief interventions.

What did the researcher do?

Watson (1999), of Glasgow Caledonian University (Scotland), designed a study to evaluate the relative effectiveness of three types of brief interventions and no treatment. The researcher recruited participants from 1,221 patients between 18 and 80 years old who were admitted to the general medical, general surgical, orthopedic, and short-stay wards of a large general hospital in western Scotland during a 4-month period. Only those who met the study’s definition of “problem drinker” (a man who drinks more than 21 standard units [UK unit means a pint of beer, 5 oz. wine, 1.5 oz. distilled spirits] in a week, a woman who drinks more than 14 standard units) and had not been treated before for alcohol dependence were considered. The screening yielded 153 possibilities, 115 men and 38 women. Their average age was 42.5 years. Of the 153, 150 participated. Forty-eight of these did not participate in follow-up.

The researcher assigned the participants to a booklet group, an advice group, a combination group, or a **control group** (see *Glossary*). They were assigned “according to the ward in which they were receiving clinical care . . . A timetable was drawn up whereby each treatment was conducted in each type of ward for four weeks” (p. 428). The objective was to avoid members of different groups discussing their treatment.

The booklet group received a booklet on sensible drinking. The advice group received 10–15 minutes of advice on sensible drinking, in a one-on-one interaction with the researcher. The combination group received the booklet and the advice. The control group received no intervention.

The outcome areas of interest to the researcher were alcohol consumption [as indicated by self-reports and by laboratory tests of mean cell volume (MCV) of red blood cells, and two liver enzymes, gamma-glutamyl transferase (GGT) and aspartate transaminase (AST)]; alcohol-related problems (as indicated in a structured interview); and health status (as rated by the participants and as indicated by number of appointments with their general practitioner and number of hospital visits in the previous year). Measures were taken before the study began and at a 1-year follow-up.

What did the researcher find?

All the groups **significantly** (see *Glossary*) reduced their alcohol consumption, alcohol-related problems, and AST levels, and all except the booklet group significantly reduced their GGT levels. No one group produced a significantly better reduction than another, however.

What do the findings mean?

For therapists and other providers, the findings suggest that “none of the interventions was more effective than no treatment” (p. 432). However, the screening process used to recruit the participants may have acted as an intervention, “rais[ing] awareness of potentially harmful levels of alcohol consumption” (p. 433).

What are the study’s limitations?

The study has one limitation: The size of the final sample may have been too small to detect significant differences between the groups. The researcher had calculated needing 25 cases per group to have the requisite statistical power. The loss of 48 people at follow-up diminished the size of two groups to less than 25.

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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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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