A COCHRANE HANDBOOK

Alcohol and Drug Misuse

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COCHRANE BOOK SERIES

WILEY-BLACKWELL
Alcohol and Drug Misuse
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A Cochrane Handbook

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Foreword

Alcohol and substance use disorders contribute directly to disability and premature deaths, and are associated with social and economic complications. Unlike in other settings, health interventions involved in substance use disorders are organised today into structured systems that require a complex approach and the involvement of professionals of different backgrounds, including primary care physicians, psychologists, neurologists and people involved in social services and education. The primary objective of this interweaving system is to enable effective interventions that are supported by scientific evidence and focused on prevention, treatment and harm reduction, while using available resources efficiently.

Epidemiological studies report that substance use is linked to specific lifestyles, and cultural and socioeconomic factors. Hence an effective prevention based on scientific evidence – such as the promotion of healthy lifestyles or the understanding of motivational processes in adolescents that permit their propensity to drink or use drugs – should be at the forefront of the strategies to reduce the burden of drug addiction.

The health system called upon for treatment has, over time, widened the object of its attention from the specific problem of ‘addiction’ to include the complex needs of drug users, characterised by the extreme variability of individual conditions and contexts. Therefore, a multidisciplinary therapeutic approach, integrating different types of treatment objectives, and a constant monitoring of the therapy with attention to general quality of life are required.

An improved understanding of the neurobiological basis of the reward, craving, withdrawal and relapse phases of addiction has led to promising pharmacological treatments. A range of prospects that include a combination of socio-educational and psychotherapeutic interventions also exist.

Within this context, Cochrane Systematic Reviews are a valuable source of valid evidence that identify, appraise and synthesise all the available evidence on a specific topic.

The _Cochrane Handbook of Alcohol and Drug Misuse_ provides a quick overview of 59 Cochrane Systematic Reviews covering a wide range of pharmacological and psychosocial treatments for opioid, alcohol, cocaine and other substance abuse disorders. Each review is analysed here in a structured
Foreword

format starting with a review question, a brief background and a summary answer, followed by the results which are presented in a comprehensive and concise way. The analysis goes on to illustrate the value that the review adds to the current knowledge, the main methodological limitations of the included studies and finally the implications of the review’s conclusions for future research.

The Handbook is the synthesis of the results of years of work by authors and researchers from around the globe; in this spirit of collaboration, they have earned this well-deserved acknowledgement.

Angela Bravi
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Preface

The preparation and production of a Cochrane Systematic Review comprise a very long, time-consuming process, starting with a peer-reviewed publication of a protocol. To identify studies that are to be included in a review – there are often several – authors need to screen hundreds if not thousands of abstracts of published studies identified through searching electronic databases. For studies that are not indexed in these databases, individual searches are required, calling for trained personnel to trawl through journals, reports, editorials, correspondence, meeting minutes, abstracts and supplements. Once studies have been selected for inclusion, reviewers need to assure the quality of each included study before providing quantitative results, giving conclusions and submitting the results to further peer review. This enormous process of collating evidence from thousands of dedicated people around the world is made possible within the Cochrane Collaboration with its focus on the need for healthcare decision making to be based on high-quality, up-to-date research evidence.

The Cochrane Collaboration is organised in a network of different Cochrane Review Groups that have the task of preparing and maintaining Systematic Reviews on a particular healthcare sector or type of problem. Cochrane Fields are entities that embrace and facilitate the work of Review Groups and, amongst their other tasks, summarise Cochrane Reviews within the Field’s scope and disseminate these summaries to stakeholders.

The Cochrane Neurological Field works predominantly with the following Cochrane Review Groups: Dementia and Cognitive Improvement; Depression, Anxiety and Neurosis; Developmental, Psychosocial and Learning Problems; Drugs and Alcohol; Epilepsy; Movement Disorders; Multiple Sclerosis; Neuromuscular Diseases; Neuro-Oncology; Stroke; Back; Incontinence; Injuries; Pain and Palliative and Supportive Care.

This Cochrane Handbook of Alcohol and Drug Misuse focuses on the effect of interventions on adults and adolescents who are affected by alcohol or drug addiction. It is one of a series of initiatives by the Cochrane Neurological Field to deliver and disseminate summaries of Cochrane Systematic Reviews. We trust readers will find it a helpful contribution to their clinical decision making.

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The Cochrane Neurological Field, Italy
Acknowledgements

We acknowledge the authors of the original Systematic Reviews for their kind and generous comments and suggestions. The summaries are prepared by ourselves, but the intellectual property of the reviews belongs to the respective authors.

We acknowledge the commitment and editing support of Kathryn Mahan and the suggestions and comments received from Teresa Cantisani and Maria Grazia Celani. We also very much wish to thank Mary Banks for her efforts in making the production of the Handbook a concrete reality.
Chapter 1  Effectiveness of brief alcohol interventions in primary care populations

**Review question:** Do brief interventions, delivered in general practice or based in primary care, reduce alcohol consumption in hazardous drinking?

**What is known of this topic:** Excessive drinking contributes significantly to social problems, physical and psychological illness, injury and death. Hidden effects include increased levels of violence, accidents and suicide.

One way to reduce consumption levels in a community may be to offer a brief intervention in primary care provided by healthcare workers such as general physicians, nurses or psychologists. The intervention offered includes providing feedback on alcohol use and harms, identifying high-risk situations for drinking and coping strategies, increasing motivation and facilitating the development of a personal plan to reduce drinking. It takes place within the time frame of a standard consultation, 5–15 minutes for a general physician, longer for a nurse.

**Summary:** Brief interventions appear to lower alcohol consumption generally in men. The lack of evidence of any difference in outcomes between efficacy and effectiveness trials suggests that the current literature is relevant to routine primary care. Future trials should focus on women and on delineating the most effective components of interventions.

**Last assessment date:** 14 February 2007

**Objectives:** To assess the effectiveness of brief intervention, general practice and emergency care-based primary care, to reduce alcohol consumption. To assess whether outcomes differ between trials in research settings and those in routine clinical settings. **Primary outcomes:** Self- or other reports of drinking (quantity and frequency), levels of laboratory markers and alcohol-related harm to the drinkers or to affected others. **Other outcomes:** Patient satisfaction measures and health-related quality of life.

**Study population:** Patients who are routinely presenting to primary care for a range of health problems and whose alcohol consumption is identified as being excessive or who have experienced harm as a result of their drinking behaviour.
2 Alcohol

Search strategy: The Cochrane Drug and Alcohol Group’s Specialised Register, MEDLINE, EMBASE, CINAHL, PsycINFO, Science Citation Index, Social Science Citation Index (February 2006), Alcohol and Alcohol Problems Science Database (1972–2003) and reference lists of articles.

Results: Twenty-two randomised trials with 7619 participants were included. After follow-up of 1 year or longer, brief intervention had lower alcohol consumption than the control group (weight mean difference: −38 grams/week (95% CI: −54 to −23); heterogeneity between trials: I² = 57%).

Subgroup analysis (eight studies with 2307 participants) confirmed the benefit of brief intervention in men (mean difference: −57 grams/week (95% CI: −89 to −25), I² = 56%), but not in women (mean difference: −10 grams/week (95% CI: −48 to 29). I² = 45%). Meta-regression showed little evidence of a greater reduction in alcohol consumption with longer treatment exposure or among trials which were less clinically representative.

Extended intervention was associated with a non-significantly greater reduction in alcohol consumption than brief intervention (mean difference: −28, 95% CI: −62 to 6 grams/week, I² = 0%).

What this review adds to the current knowledge: Pooled analyses from a significant number of studies document that brief alcohol intervention in primary care contexts results in significant reductions in weekly consumption for men, with an average drop of about six standard drinks per week in patients compared to controls. The review showed no significant reduction in alcohol consumption for women; although this may be partly due to low statistical power (as trials reporting outcomes from women enrolled only 499 participants), brief interventions for women are not yet justified.

Main limitations: A moderate level of heterogeneity. Another most likely source of bias is loss to follow-up, which was about 27% overall and significantly higher in the brief intervention arm than in the control arm (difference in rates of 3%, 95% CI: 1% to 6%).

The future: There is a clear need for more evaluative research on brief interventions with women, younger people and those from cultural minority groups. However, given the large number of trials of brief alcohol intervention showing a positive impact in men, there is no need for more of the same before such interventions are delivered in primary care. Longer treatment appeared to have little effect in significantly improving outcomes. Moreover, there is some suggestion that screening alone may result in alcohol consumption reduction, and this should be investigated further. Finally, future research directions should focus on implementation issues including a more precise specification of brief intervention components.
### Review: Effectiveness of brief alcohol interventions in primary care populations

**Comparison:** Brief intervention vs. control  
**Outcome:** Quantity of drinking (g/week) subgrouped by effectiveness/efficacy

#### Study or subgroup  
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#### Figure 1.1  