

Northumbria Research Link

Citation: Heather, Nick (2006) Controlled drinking, harm reduction and their roles in the response to alcohol-related problems. *Addiction Research & Theory*, 14 (1). pp. 7-18. ISSN 1606-6359

Published by: Informa

URL: <http://dx.doi.org/10.1080/16066350500489170>
<<http://dx.doi.org/10.1080/16066350500489170>>

This version was downloaded from Northumbria Research Link:
<https://nrl.northumbria.ac.uk/id/eprint/3667/>

Northumbria University has developed Northumbria Research Link (NRL) to enable users to access the University's research output. Copyright © and moral rights for items on NRL are retained by the individual author(s) and/or other copyright owners. Single copies of full items can be reproduced, displayed or performed, and given to third parties in any format or medium for personal research or study, educational, or not-for-profit purposes without prior permission or charge, provided the authors, title and full bibliographic details are given, as well as a hyperlink and/or URL to the original metadata page. The content must not be changed in any way. Full items must not be sold commercially in any format or medium without formal permission of the copyright holder. The full policy is available online: <http://nrl.northumbria.ac.uk/policies.html>

This document may differ from the final, published version of the research and has been made available online in accordance with publisher policies. To read and/or cite from the published version of the research, please visit the publisher's website (a subscription may be required.)

**CONTROLLED DRINKING, HARM REDUCTION AND
THEIR ROLES IN THE RESPONSE TO ALCOHOL-
RELATED PROBLEMS**

**Nick Heather,
Division of Psychology,
Northumbria University,
UK**

**Correspondence to Professor Nick Heather, Division of Psychology, School of
Psychology and Sport Sciences, Northumbria University, Newcastle upon Tyne,
NE1 8ST, UK nick.heather@unn.ac.uk**

ABSTRACT

This paper first distinguishes three meanings of [the](#) term “harm reduction” in the literature on alcohol problems: a European sense in which a change in drinking is not necessarily required; an American sense which includes the controlled drinking goal of treatment; and a government policy sense in which it is seen as an alternative to whole population alcohol policies. The paper then goes on to consider the roles of the controlled drinking goal and the harm reduction philosophy in the response to three groups of people with alcohol problems or increased risk of such problems: the non-treatment-seeking population of hazardous and harmful drinkers; the population of socio-economically disadvantaged street drinkers; and the regular population of treatment-seeking problems drinkers. It is concluded, *inter alia*, that the equation of harm reduction and the controlled drinking goal in the American sense of harm reduction is confusing and may have had a detrimental effect of the practice of controlled drinking treatment.

The aims of this paper are twofold: (i) to try to clarify various meanings in the literature of the term “harm reduction”, particularly in relation to alcohol problems and the controlled drinking (CD) goal of treatment; and (ii) to elaborate a position on the roles of harm reduction and the CD goal in the treatment of alcohol problems and, more generally, in the response to alcohol-related harm.

MEANINGS OF HARM REDUCTION

It is often said that “harm reduction” can easily become a meaningless term – similar to motherhood, apple pie and other things that no-one could possibly object to.

Anyone working in the field of alcohol problems, either in treatment or prevention, could legitimately claim to be aiming at a reduction of the harm caused by alcohol.

We clearly need a more precise definition of the term if it is to be of any use for scientific, policy or even clinical purposes.

The European sense of harm reduction

Some years ago colleagues and I offered a definition of harm reduction as follows:

“An attempt to ameliorate the adverse health, social or economic consequences of mood-altering substances without necessarily requiring a reduction in the consumption of these substances” (Heather *et al.*, 1993, p.vi).

Thus, we argued, harm reduction was distinguished from other more conventional approaches to drug-related harm by its emphasis on decreasing problems resulting from consumption rather than on decreasing consumption itself. The paradigm case of harm reduction in this sense is the needle exchange and syringe programme which

attempts to reduce the probability of acquiring or transmitting HIV by changing the way the drug is consumed without necessarily aiming for any reduction in the quantity of drug use. This is the typical sense in which harm reduction is used, or at least was until recently used, in Europe where the harm reduction movement originated (O'Hare *et al.*, 1992).

Applied to the area of alcohol problems, some examples of harm reduction *par excellence* are the thiamine enrichment of beer (Wodak *et al.*, 1990; Harper *et al.*, 1998), using tempered glass in alcohol beverage containers (Shepherd, 1994), greater availability of late-night public transportation and designated driver programmes (Stewart & Sweedler, 1997). When effective, all these measures reduce the probability of negative consequence of heavy drinking while leaving the heavy drinking itself untouched. In the treatment of alcohol problems, the concept closest to harm reduction in this European sense is “attenuated drinking” described in an early paper by Pattison (1976). In this concept, continued heavy drinking, perhaps at a somewhat reduced level, is expected and tolerated, while the focus of treatment is on improvements in the client's health and quality of life. Thus a change in drinking is not *necessarily* required in this concept (Heather, 1993). This will be returned to below.

The argument here is that the goal of attenuated drinking is harm reduction in the true sense of the term. On the other hand, the “controlled drinking” goal does, by definition, require a reduction in drinking and is not therefore harm reduction in this true sense. The CD goal might be better thought of as “use reduction” rather than harm reduction. Even if some reduction in the amount of alcohol consumed is seen as

an inevitable accompaniment of a harm reduction measure, this is of secondary importance to the reduction in harmful consequences of drinking it may bring about. Some degree of continuing alcohol-related harm is tolerated in definitions of the success of harm reduction measures in this true sense of the term.

The American sense of harm reduction for alcohol problems

In contrast to this, more recent uses of harm reduction in the American literature on alcohol problems, particularly in the work of G. Alan Marlatt and his colleagues (e.g. Marlatt & Tapert, 1993; Marlatt *et al.*, 1993; Marlatt, 1998), view the term as synonymous with CD. For example, the second principle of harm reduction enunciated by Marlatt (1999) is:

“... that this approach accepts alternatives to abstinence in the client’s selection of treatment goals. Examples include needle-exchange programs for intravenous drug users ..., methadone maintenance for opiate addiction, controlled or moderate drinking for those dependent on alcohol and nicotine replacement therapies for addicted smokers. These harm reduction procedures stand in sharp contrast to the goals of most traditional alcohol and drug treatment programs. In these programs, abstinence is almost always required as a precondition for treatment” (p.62).

It is noticeable that all the examples of harm reduction programmes given here qualify as harm reduction in the European sense described above except for CD programmes. However, the reason for the inclusion of CD in the list is clear: it is a reaction to the dominant ideology of total abstinence for all that pervades US alcohol

treatment services. The case for CD as harm reduction rests on the premise that abstinence will be unattainable for many clients, so that harm reduction by controlled drinking is preferable to the unrealistic goal of harm elimination by total abstinence. But this has the effect of rendering the CD goal a “second-best” alternative rather than a first choice for appropriate clients. The argument here, which will be expanded below, is that CD programmes, as well as abstinence-oriented programmes, should be aimed at *harm elimination*.

I do not wish to be misunderstood here. The work of Marlatt and his colleagues in popularising the concept of harm reduction in the USA and elsewhere, together with the wide range of implications this has for the response to substance-related problems in society, has been extremely valuable and is to be applauded. My only objection is that their identification of controlled drinking and harm reduction is confusing and may have led to unwanted consequences.

Harm reduction as government policy

The last sense of harm reduction, or at least harm minimisation, to be considered here is one that has proved popular with some governments around the world. For example, the Australian National Campaign Against Drug Abuse, started in 1985, specified that its underlying aim was “to minimise the harmful effects of drugs on Australian society” (Staples, 1993). Although this aim was interpreted very widely, and was considered to include both demand reduction and the control of supply, it led pragmatically to the early implementation on a widespread scale of methadone maintenance programmes and needle and syringe exchanges.

Harm reduction has also been explicitly embraced by the British Government in its long-awaited *Alcohol Harm Reduction Strategy for England* (AHRSE: Prime Minister's Strategy Unit, 2004). What does the term mean in this context? In the AHRSE document, the Government states:

“It (the strategy) recognises that there are both benefits and costs to alcohol use and, therefore, does not aim to cut alcohol consumption by the whole population. Instead it focuses on the prevention, minimisation and management of the harms caused by alcohol misuse” (p.16).

It is clear from this that the Government regards harm reduction mainly as an alternative to, and a way of rebutting, the “whole population” approach to reducing harm in which the attempt is made to decrease alcohol consumption of the population as a whole. This applies particularly to policies such as increased taxation on alcohol and restrictions on alcohol availability which research evidence strongly suggests would be highly effective in reducing alcohol-related harm in the population (Edwards *et al.*, 1994; Babor *et al.*, 2003; Academy of Medical Sciences, 2004). In contrast, the Government's view of “harm reduction” would restrict policies to limiting or reducing harm among those have already incurred it or, presumably, are at risk of doing so. It is not unreasonable to suppose that the Government believes the introduction of whole population measures would be unpopular with the general public and therefore a political risk.

A further implication of harm reduction for the Government becomes clear when the strategy document goes on to say:

“... we believe that a more effective measure (to controls on price and availability) would be to provide the industry with further opportunities to work in partnership with the Government to reduce alcohol-related harm” (p.18).

The only examples given of such (purely voluntary) opportunities are “working with the police to exclude trouble-makers” and “helping provide transport home for its clients” (p.19). Little danger then that these harm reduction measures, even in the unlikely event that they were seriously implemented, would affect industry profits!

It seems obvious that this particular meaning of harm reduction was developed mainly for political purposes and as a way of packaging the Government’s desire not to offend the alcohol industry in its response to alcohol-related harm in England. It is not relevant for present purposes and will not be commented on further here.

ROLES OF CONTROLLED DRINKING AND HARM REDUCTION IN THE RESPONSE TO ALCOHOL-RELATED PROBLEMS

The roles of the CD goal and harm reduction programmes will be considered in relation to three segments of the population with alcohol problems or with an elevated risk of such problems: the non-treatment seeking population of hazardous and harmful drinkers, socio-economically disadvantaged problem drinkers and the regular treatment-seeking population of problem drinkers.

Among the non-treatment seeking population

There is little doubt that the most important application of the CD goal has been its use in opportunistic brief interventions in generalist settings among people who are drinking hazardingly or harmfully but with only low levels of alcohol dependence and who are not seeking treatment for alcohol-related problems (Heather, 2001). The rationale for the CD goal in this context is now so well known that it hardly needs repeating. Suffice it to say that [the availability of](#) interventions that do not demand total abstinence means that a much larger proportion of the population in need can be reached and that the potential impact of intervention is greatly multiplied. In this way, opportunistic brief interventions have become the principal vehicle for the broadening of the base of “treatment” for alcohol problems envisaged in the Institute of Medicine (1990) report.

Indeed, so commonplace has the use of the CD goal in brief interventions become that it may be doubted whether this has anything to do with the abstinence vs. controlled drinking controversy in the 1970s and 1980s. Many scientists and practitioners interested in the potential of brief interventions, especially those from public health or general medical practice backgrounds, may be blissfully unaware of the ferocity of this old controversy. It should be recalled, however, that the first report on the effectiveness of alcohol brief interventions in the primary care setting (Heather *et al.*, 1987) referred in its title to an evaluation of a “controlled drinking minimal intervention”. The idea of community-based brief interventions was first suggested in a book that arose directly from the abstinence vs. controlled drinking controversy (Heather & Robertson, 1981). It is reasonable to suggest that, without the controversy and the resulting examination of whereabouts in the spectrum of alcohol-related

problems the CD goal was best placed, the development of opportunistic brief interventions would have been substantially **delayed**.

Comment [LAU1]: It is my view that you over state this. You could make the point rather differently; don't forget that the controversy was essentially North American and in this country very much confined to the specialist treatment sector. It could not be said to be a controversy that raged in the general public as it did in the US.

What of harm reduction in relation to brief interventions? The specific goal of brief interventions is almost always to bring about a level and pattern of drinking consistent with the recommendations of medical authorities, based on epidemiological evidence, regarding “safe”, “sensible” or “low-risk” drinking. It is true that, depending on the drinker and the situation, no level of drinking is entirely without risk and also true that the drinking of the majority of “normal drinkers” is occasionally risky or even harmful in relatively minor ways. Nevertheless, the explicit goal of brief interventions is *harmfree* drinking under medically recommended limits and this is how they are almost invariably evaluated. Thus the target is the elimination of harm, not merely its reduction, and the assumptions and principles of harm reduction in the European sense are **irrelevant**.

Comment [LAU2]: Think you could be a bit clearer here by restating what you mean, otherwise the reader must return to the definition.

Among socio-economically disadvantaged problem drinkers

At the other end of the spectrum of alcohol problems are those individuals who typically are very unlikely to sustain either total abstinence or harmfree drinking despite the most strenuous attempt to help them to do so, i.e., homeless street drinkers or so-called “skid row alcoholics”. This is in most cases because their quality of life is so impoverished that they see little to gain from changes in drinking behaviour. As discussed above, Pattison’s (1976) concept of “attenuated drinking” is relevant to these clients.

Among these clients an approach can be adopted in which relatively modest gains in health, work and social relationships take precedence over radical changes in drinking behaviour. In the case of many street drinkers, the least that can be done is to keep them as healthy as possible by occasional detoxifications and medical attention, even though an immediate return to regular heavy drinking can be expected. Although some reduction in drinking is welcome and may have beneficial effects on other areas of life adjustment, this is not the primary objective of treatment. As already suggested, this approach is harm reduction in its true sense.

Among problem drinkers seeking treatment

It is among this population, of course, that the use of the CD goal has been, and in some quarters continues to be, controversial. This is because individuals in this population are assumed to be “dependent” or, in terms of a continuous concept of alcohol dependence, to show moderate or severe dependence.

Summing up “the great debate” on the possibility of controlled drinking following alcohol dependence, Sobell and Sobell (1995) concluded that recoveries of individuals who have been severely dependent predominantly involved total abstinence, while recoveries of those who have not been severely dependent predominantly involved reduced drinking. What is the current status of this attempt to reach a consensus on this vexed issue?

The best judgement is that the evidence mainly supports the Sobells’ conclusion. This was shown most clearly in findings of the *Rand Report* 4-year follow-up (Polich, Armor & Braiker, 1980) many years ago which showed that the probability of a non-

problem drinking outcome following abstinence-oriented treatment was nearly linearly related to the baseline level of “dependence symptoms” (see Figure). Since then, this basic finding has been confirmed, both from studies of abstinence-oriented and moderation-oriented treatment (Edwards *et al.*, 1983; Miller & Baca, 1983; Sanchez-Craig *et al.*, 1984; Rychtarik, *et al.*, 1987; Miller *et al.*, 1992).

An attempt was made to increase the level of dependence at which a CD goal might be successful by Heather *et al.* (2000) by means of a new treatment method called *Moderation-oriented Cue Exposure* (MOCE). We hypothesised that MOCE would be superior to the conventional method of training clients to control their consumption (*Behavioural Self-control Training* [BSCT]; Hester, 1989) among clients choosing and otherwise suitable for a CD goal. We also hypothesised that MOCE would become relatively more effective as severity of dependence increased. Neither hypothesis was confirmed and, since BSCT was more cost-effective, there were no grounds for replacing BSCT by MOCE in CD treatment programmes. Similar findings were reported from an Australian study (Dawe *et al.*, 2002). The conclusion from this is that, if there is a treatment method that raises the level of dependence for which the CD goal is indicated, we do not yet know what it is.

As to the measurement of dependence for the purpose of selecting a CD goal, the conventional advice from research is that, all other things considered, a score of 30 or below on the *Severity of Alcohol Dependence Questionnaire* (SADQ; Stockwell *et al.*, 1979, 1994) is the best indicator. However, recent evidence (Heather & Dawe, 2005) suggests that a score of below 25 on Part 2 of the *Impaired Control Scale* (ICS; Heather, Booth & Luce, 1998) is more efficient than the SADQ, at least for problem

drinkers with moderate levels of dependence responding to media announcements or referred by general practitioners. Level of impaired control can be understood as a particular facet of alcohol dependence that may be directly relevant to the possibility of achieving control over drinking in future.

Comment [LAU3]: See my email for comment

As to the theoretical significance of these findings, they do not necessarily support the deduction from the disease concept of alcoholism which proposes that individuals with this disease cannot, by definition, maintain control over drinking. In the first place, the literature abounds with examples of cases where control has been achieved and maintained over extended periods of time among people with very high levels of dependence, as demonstrated by DTs, convulsions and hallucinations in withdrawal (Heather & Robertson, 1981). These cases show that a CD outcome never becomes absolutely impossible at high levels of dependence, only much rarer and practically inadvisable as a goal of treatment. Secondly, a social learning account of problem drinking clearly suggests that control in the face of cues that have been strongly associated with heavy drinking over many years is extraordinarily difficult to achieve - to the extent that avoidance of such cues by total abstinence becomes the far easier option for a successful resolution of a drinking problem following severe dependence (Heather & Robertson, 1997).

Nor does this mean that severity of dependence is the only consideration in deciding between abstinence and CD treatment goals. Evidence points to importance of beliefs the client may have about the nature of alcohol problems to the likelihood of a CD goal being maintained (Heather, Winton & Rollnick, 1982; Orford & Keddie, 1986). At the same time, there is growing evidence that the client's preferences in this matter

are also important and that many clients will naturally choose the goal that best fits their circumstances (Pachman, Foy & van Erd, 1978; Booth *et al.*, 1984, 1992; Hodgins *et al.* 1997; Adamson & Sellman, 2001). Ultimately, goal choice is a clinical decision to be negotiated between client and clinician and depending on the unique set of characteristics, beliefs and preferences of the individual **client**.

Comment [LAU4]: I think that it is worth making the point here that it is important to distinguish a positive from a negative choice. Client choice is too often interpreted in agencies to mean that a positive choice for CD should override clinical judgment rather than be taken for the precontemplative statement that it actually is. Thus client choice should determine pursuit of a CD goal after clinical considerations indicate its appropriateness.

To return to the relationship between harm reduction and the CD goal, it is being argued here that, if they are to maintain a useful role in the treatment of alcohol problems, CD programmes should be aimed at “non-problem drinking” or, in other words, the elimination of alcohol problems rather than merely their reduction. This is by no means an unrealistic ambition among many people with moderate dependence and perhaps a few, bearing in mind the discussion above, with severe dependence. Of course, many clients will fail to realise this goal after treatment and will continue to show problems with their drinking, albeit at a reduced level. This is another sense in which harm reduction has been used in the alcohol treatment field, not as an explicit goal of treatment but as a favourable outcome that should be counted among the beneficial effects of treatment (see Heather, 1993). But exactly the same considerations apply to the abstinence goal, as enshrined in the traditional outcome category (employed by all but the most fanatically abstinence-oriented researchers) of “drinking but improved”. There is nothing specific to the CD goal in this.

I would agree completely with Marlatt and others that such outcomes are an invaluable correlate of our attempts to improve the quality of our client’s lives, one that should not be ignored but clearly recognised and hailed as a major achievement. But the trouble with seeing harm reduction in this sense as a goal of treatment is that

it may deter problem drinkers from seeking a non-problem outcome in circumstances where one is eminently possible and may also confuse them about how they should go about achieving such an outcome.

Ainslie (1992, p.169) has referred to the lawyer's concept of "bright lines" in discussing the problem of self-control over drinking, i.e., the need for simple and clear distinctions between what is permissible under the personal rules governing behaviour and what is not. Total abstinence obviously provides such a bright line – no drinking vs. any drinking. The hypothesis here is that lines of as much clarity as possible - two drinks vs. more than two, drinking in highly specified circumstances vs. drinking in other circumstances, drinking with specified people versus drinking with others, never drinking as a response to depression – are needed to give CD programmes the best chance of success. Such rules are most conveniently subordinated to the central aim of drinking without risks or problems. From this viewpoint, a target of merely reducing the harm associated with drinking is too vague, both for therapists in deciding how best to help their clients and for clients in deciding when, where and how much they should drink.

The empirical consensus regarding the CD goal described by Sobell and Sobell (1995) (see above) appears to be reflected in treatment agency policies, at least in the UK. Two surveys of treatment agencies conducted ten years apart (Robertson & Heather, 1982; Rosenberg *et al.*, 1992) both reported that severity of alcohol dependence was the main criterion determining whether or not a CD goal was advisable. The second survey found that about half of the respondents who accepted CD regarded it as relevant to only 1-25% of their clients. However, one's impression – and it is only

that at present – is that this proportion has increased in many British treatment agencies. Further, the impression is that definite rules governing quantities consumed, the circumstances and the antecedents of drinking are less often used or less rigorously implemented. If these speculations are accurate, it may be that the popularity of the harm reduction philosophy, in the American sense of the term, has led to such changes in policy or practice. It is impossible to tell what effect these changes, if they have occurred, might have had on the outcome of treatment. A further survey of UK treatment agencies regarding CD policy, paying attention to the issues raised in this paper, would be useful.

REFERENCES

- Academy of Medical Sciences (2004). *Calling time: the nation's drinking as a major health issue*. London, Author.
- Adamson, S.J. & Sellman, J.D. (2001). Drinking goal selection and treatment outcome in out-patients with mild-moderate alcohol dependence. *Drug & Alcohol Review*, 20, 351-359.
- Ainslie G. (1992). *Picoeconomics: the strategic interaction of successive motivational states within the person*. Cambridge, Cambridge University Press.
- Babor, T., Caetano, R., Casswell, S., Edwards, G., Giesbrecht, N., Graham, K. *et al.* (2003). *Alcohol - no ordinary commodity: research and public policy*. Oxford, Oxford University Press.
- Baer, J., Kivlahan, D.R., Blume, A., McKnight, P. and Marlatt, G. (2001). Brief Intervention for heavy-drinking college students: 4-year follow-up and natural history. *American Journal of Public Health*, 91, 1310-1315.
- Baer, J.S., Marlatt, G.A., Kivlahan, D.R., Frome, K., Larimer, M.E. and Williams, E. (1992). An experimental test of three methods of alcohol risk reduction with young adults. *Journal of Consulting and Clinical Psychology*, 60, 974-9.
- Booth, P.G., Dale, B. & Ansari, J. (1984). Problem drinkers' goal choice and treatment outcome: a preliminary study. *Addictive Behavior*, 9, 357-364.
- Booth, P.G., Dale, B., Slade, P.D. & Dewey, M.E. (1992). A follow-up study of problem drinkers offered a goal choice option. *Journal of Studies on Alcohol*, 53, 594-600.
- Dawe, S., Rees, V.W., Sitharthan, T., Mattick, R.P. & Heather, N. (2002). Efficacy of moderation-oriented cue exposure for problem drinkers: a randomised controlled trial. *Journal of Consulting & Clinical Psychology*, 70, 1045-1050.
- Edwards, G., Duckitt, A., Oppenheimer, E., Sheehan, M. & Taylor, C. (1983). What happens to alcoholics? *Lancet*, 2, 269-271.
- Edwards, G., Anderson, P., Babor, T., Casswell, S., Ferrence, R., Giesbrecht, N. *et al.* (1994). *Alcohol policy and the public good*. Oxford, Oxford University Press.
- Harper, C., Sheedy, D., Lara, A. *et al.* (1998). Prevalence of Wernicke-Korsakoff syndrome in Australia: has thiamin fortification made a difference? *Medical Journal of Australia*, 168, 542-545.
- Heather, N. (1993). Application of harm-reduction principles to the treatment of alcohol problems. In: Heather, N., Wodak, A., Nadelmann, E. & P. O'Hare (Eds.), *Psychoactive drugs and harm reduction: from faith to science*, pp. 168-183. London, Whurr.

- Heather, N. (2001). Brief interventions. In: Heather, N., Peters, T. & T. Stockwell (Eds.), *International handbook of alcohol dependence and problems*, pp. 605-626. Chichester, Wiley.
- Heather, N. & Dawe, S. (2005). Level of impaired control predicts outcome of moderation-oriented treatment of alcohol problems. *Addiction*, 100, 945-952.
- Heather, N. & Robertson, I. (1981). *Controlled drinking*. London: Methuen.
- Heather, N. & Robertson, I. (1997). *Problem drinking* (3rd edition). Oxford: Oxford University Press.
- Heather, N., Booth, P. & Luce, A. (1998). Impaired Control Scale: cross-validation and relationships with treatment outcome. *Addiction*, 93, 761-771.
- Heather, N., Brodie, J., Wale, S., Wilkinson, G., Luce, A Webb, E. *et al.* (2000). A randomized controlled trial of Moderation-oriented Cue Exposure. *Journal of Studies on Alcohol*, 61, 561-570.
- Heather, N., Champion, P., Neville, R. & MacCabe, D. (1987). Evaluation of a controlled drinking minimal intervention for problem drinkers in general practice (the DRAMS Scheme). *Journal of the Royal College of General Practitioners*, 37, 358- 363.
- Heather, N., Winton, M. & Rollnick, S. (1982). An empirical test of "a cultural delusion of alcoholics." *Psychological Reports*, 50, 379-382.
- Heather, N., Wodak, A., Nadelmann, E. & O'Hare, P. (1993). *Psychoactive drugs and harm reduction: from faith to science*. London, Whurr.
- Hester, R.K. (1989). Self-control training. In: Hester, R.K. & Miller, W.R. (Eds.), *Handbook of alcoholism treatment approaches: effective alternatives*, pp. 141-149. New York NY, Pergamon.
- Hodgins, D.C., Leigh, G., Milne, R. & Gerrish, R. (1997). Drinking goal selection in behavioural self-management treatment of chronic alcoholics. *Addictive Behavior*, 247-255.
- Institute of Medicine (1990). *Broadening the base of treatment for alcohol problems*. Washington DC, National Academy Press.
- Marlatt, G. (Ed.) (1998). *Basic principles and strategies of harm reduction*. New York, Guilford.
- Marlatt, G. (1999). From hindsight to foresight: a commentary on Project MATCH. In: Tucker, J. A., Donovan, D. & Marlatt, G. (Eds.), *Changing addictive behavior: bridging clinical and public health strategies*, pp. 45-66. New York, Guilford.

- Marlatt, G. & Tapert, S. (1993). Harm reduction: reducing the risks of addictive behaviour. In: Baer, J., Marlatt, G. & McMahon, R. (Eds.) *Addictive behaviors across the lifespan*, pp. 243-273. Newbury Park, CA, Sage.
- Marlatt, G.A., Baer, J.S., Kivlahan, D.R., Dimeff, L.A., Larimer, M.E., Quigley, L.A., Somers, J.M. & Williams, E. (1998). Screening and brief intervention for high-risk college student drinkers: results from a 2-year follow-up assessment. *Journal of Consulting & Clinical Psychology*, 66, 604-615.
- Marlatt, G. A., Larimer, M. E., Baer, J. S. & Quigley, L. A. (1993). Harm reduction for alcohol problems: Moving beyond the controlled drinking controversy. *Behavior Therapy*, 24, 461-503.
- Miller, W.R. & Baca, L.M. (1983). Two-year follow-up of bibliotherapy and therapist-directed controlled drinking training for problem drinkers. *Behavior Therapy*, 14, 441-448.
- Miller, W.R., Leckman, A.L., Delaney, H.D. & Tinkcom, M. (1992). Long-term follow-up of behavioural self-control training. *Journal of Studies on Alcohol*, 53, 249-261.
- O'Hare, P.A., Newcombe, R., Matthews, A., Buning, E.C. & Drucker, E. (1992). *The reduction of drug-related harm*. London, Routledge.
- Orford, J. & Keddie, A. (1986). Abstinence or controlled drinking in clinical practice: a test of the dependence and persuasion hypotheses. *British Journal of Addiction*, 81, 495-504.
- Pachman, J.S., Foy, D.W., van Erd, M. (1978). Goal choice of alcoholics: a comparison of those who choose total abstinence vs. those who choose responsible, controlled drinking. *Journal of Clinical Psychology*, 34, 781-783.
- Pattison, E.M. (1976). Nonabstinent drinking goals in the treatment of alcoholism: a clinical typology. *Archives of General Psychiatry*, 33, 923-930.
- Polich, J.M., Armor, D.J. & Braiker, H.B. (1980). *The course of alcoholism: four years after treatment*. Santa Monica CA, Rand Corporation.
- Prime Minister's Strategy Unit (2004). *Alcohol harm reduction strategy for England*. London, Cabinet Office.
- Robertson, I.H. & Heather, N. (1982). A survey of controlled drinking treatment in Britain. *British Journal on Alcohol & Alcoholism*, 17, 102-105.
- Rosenberg, H., Melville, J., Levell, D. & Hodge, J.E. (1992). A 10-year follow-up survey of acceptability of controlled drinking in Britain. *Journal of Studies on Alcohol*, 53, 441-446.

- Rychtarik, R., Foy, D., Scott, T., Lokey, L. & Prue, D. (1987). Five-six-year follow-up of broad-spectrum behavioral treatment for alcoholism: effects of training controlled drinking skills. *Journal of Consulting & Clinical Psychology*, 52, 106-108.
- Sanchez-Craig, M., Annis, H. M., Barnett A. R. & MacDonald, K.R. (1984). Random assignment to abstinence and controlled drinking: evaluation of a cognitive-behavioural programme for problem drinkers. *Journal of Consulting & Clinical Psychology*, 52, 390-403.
- Shepherd, J. (1994). Violent crime: the role of alcohol and new approaches to the prevention of injury. *Alcohol & Alcoholism*, 29, 5-10.
- Sobell, M. B. & Sobell, L. C. (1995). Controlled drinking after 25 years: how important was the great debate? *Addiction*, 90, 1149-1153.
- Staples, P. (1993). Reduction of alcohol- and drug-related harm in Australia: a Government Minister's perspective. In: Heather, N., Wodak, A., Nadelmann, E. & P. O'Hare (Eds.), *Psychoactive drugs and harm reduction: from faith to science*, pp. 49-54. London, Whurr.
- Stewart, K. & Sweedler, B.M. (1997). Driving under the influence of alcohol. In: Plant, M., Single E. & Stockwell, T. (Eds.), *Alcohol: minimising the harm*, pp. 126-142. London: Free Association Books.
- Stockwell, T.R., Hodgson, R.J., Edwards, G., Taylor, C. & Rankin, H. (1979). The development of a questionnaire to measure severity of alcohol dependence. *British Journal of Addiction*, 74, 79-87.
- Stockwell, T.R., Sitharthan, T., McGrath, D. & Lang, E. (1994). The measurement of alcohol dependence and impaired control in community samples. *Addiction*, 89, 167-174.
- Wodak, A., Richmond, R. & Wilson, A. (1990). Thiamin fortification and alcohol. *Medical Journal of Australia*, 152, 97-99.