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ANALYSIS

Rethinking brief interventions for alcohol in general practice

Jim McCambridge and **Richard Saitz** question the effectiveness of brief advice and counselling in primary care to prevent harm from heavy alcohol use and call for a more strategic approach

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Primary care has been promoted for decades as the key setting for delivering brief individual advice and counselling interventions to reduce heavy alcohol consumption.[1] National alcohol programmes have been initiated in many countries in which practitioners are encouraged and supported in various ways (box 1), but uptake is low.

The logic of reducing risky behaviour is compelling because of the burden of preventable diseases and cost pressures on health systems. In such a context, "brief interventions" offer promise of efficiency, and evidence suggests effectiveness for alcohol.[2] However, unresolved questions remain about their use in everyday practice[3]: although most patients don't mind being asked about their drinking,[4] they may not see why intervention is necessary if they do not regard their drinking as problematic,[5] and practitioners will be reluctant to screen and intervene if they believe doing so compromises person centred care.[6] After more than three decades of study in primary care, it now seems unlikely that brief interventions alone confer any population level benefit, and their ultimate public health impact will derive from working in concert with other effective alcohol policy measures.[7] A careful look at the evidence explains why.

Evidence of effectiveness evidence is weak

The evidence base for brief interventions is plagued by a crucial ambiguity. Positive findings in well controlled clinical trials (that is, efficacy studies) are often described as meaning that interventions will be effective in real world practice. But studies vary importantly in the extent to which they reflect what might be expected to occur in routine practice.[8] A Cochrane review of brief interventions in primary care settings identified an overall reduction in drinking of almost five UK units a week in a meta-analysis of 22 trials.[9] The study found no differences in effects between 12 efficacy trials and 10 effectiveness trials,[9] but it categorised trials using an unvalidated instrument that precludes firm conclusions.[10 11] The Cochrane review also found that trials reporting the largest effects took place in settings other than primary care[12] or were at high risk of bias,[13 14] or both.[15 16] It gives no effect estimate for general practice studies only, or for studies not at high risk of bias.

More recent large NHS general practice trials of effectiveness have convincingly shown no benefit,[17 18] which is difficult to reconcile with an interpretation of the earlier evidence as showing effectiveness. The problems with interpretation are shown by a systematic review of reviews of this literature,[2] which concluded that the evidence "supports the effectiveness of brief intervention at reducing alcohol-related problems" even though it used self reported consumption rather than alcohol related problems as the outcome and did not evaluate the efficacy-effectiveness issue. The rated quality of included reviews was lower than that for other studies using the same tool.[19] Many unsystematic reviews of brief interventions refer to earlier reviews that make similar claims of effectiveness. We suggest that effectiveness inferences are not secure and consequently it is more appropriate to consider the brief intervention trials as examining efficacy.

Questions about efficacy

The actual content of advice and brief counselling used in the studies of alcohol interventions is rarely evaluated.[20] We do not know which discussion contents or counselling microskills are most associated with improved outcomes.[21] Studies in other settings show that the mechanisms of effect are complex, with challenging implications for design of interventions.[22]

Brief interventions, however, should not be expected to exert any more than short term effects,[23] although these are likely to be highly cost effective if effectiveness can be reliably ascertained.[24] Almost all identified effects are on self reported alcohol consumption[25]; effects on other outcomes (eg, injuries, liver disease, or use of acute healthcare) are neither consistent

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Box 1: Guidance materials on brief interventions for alcohol in general practice

WHO. Screening and brief intervention for alcohol problems in primary health care (http://www.who.int/substance_abuse/activities/sbi/en/)

Public Health England. Alcohol learning resources (http://www.alcohollearningcentre.org.uk/Topics/Browse/BriefAdvice/)

Screening and intervention programme for sensible drinking (SIPS) (http://www.sips.iop.kcl.ac.uk/index.php#)

Primary Health Care European Project on Alcohol. Training programme (http://www.gencat.cat/salut/phepa/units/phepa/html/en/dir164/doc7453.html)

BISTAIRS: Brief interventions in the treatment of alcohol use disorders in relevant settings (http://www.bistairs.eu/)

National Institute on Alcohol and Alcohol Abuse. Helping patients who drink too much (http://pubs.niaaa.nih.gov/publications/Practitioner/CliniciansGuide2005/clinicians_guide.htm)

CDC. Planning and implementing screening and brief intervention for risky alcohol use (http://www.cdc.gov/ncbddd/fasd/Cdocuments/alcoholsbiimplementationguide.pdf)

Substance Abuse and Mental Health Services Administration. Resources for screening, brief intervention, and referral to treatment (http://www.samhsa.gov/sbirt/resources)

SAMHSA-HRSA Center for Integrated Health Solutions. SBIRT: screening, brief intervention, and referral to treatment (http://www.integration.samhsa.gov/clinical-practice/SBIRT)

nor convincing.[26] Self reported effects on consumption are vulnerable to social desirability bias, since people are aware they have been advised to drink less and are then asked to report whether they have done so. Also individual risk factors may be reduced without altering health outcomes, as has been well established more widely.[27]

Generalisability and implementation problems

Basic questions about generalisability show further weaknesses in the evidence. We know little about variability in effects by age, existence or severity of problems, ethnicity, or health inequities.[2] Similarly, we know little about contextual influences, including cross cultural variability, health system features, neighbourhood and interpersonal influences,[28] or how existing evidence may generalise to other healthcare settings.[29] Brief alcohol interventions, like other individual level interventions, may inadvertently widen health inequities. People with severe problems might be expected to require more intensive interventions, though evidence of successful referral for treatment is weak.[30]

Basic counselling skills to address health behaviours and knowledge about alcohol are uneven among practitioners. Thus consistent delivery of interventions is difficult. There is no basis for deciding who gets which type of brief intervention, and although stepped care approaches are often recommended,[31] supporting evidence is limited.[32]

In a recent UK general practice trial, over 90% of patients who were identified as consuming too much alcohol also had a poor diet, did too little exercise, or smoked.[33] So, how, when, or why should practitioners with limited time prioritise alcohol over other potential targets for prevention? And would simultaneously addressing behavioural risks, if this could be arranged, be more or less effective than tackling them individually?

The interventions in national programmes are often quite different from what has been shown to be efficacious. For example, in the Swedish national programme, almost all brief interventions were delivered in less than 5 minutes,[34] whereas the median delivery time in the Cochrane primary care review was 25 minutes.[9] Similarly, the identification and brief advice (IBA) model in England, which is based on the SIPS trial that showed no benefit,[17] has a recommended delivery time of 5-10 minutes.[35]

There are wider reasons to be concerned about the evidence for such brief single session interventions.[26] In the US, a national programme from the Substance Abuse and Mental Health Services Administration, now in its second decade of implementation, has an interventionist (usually not a physician) deliver a single brief intervention for both drugs and alcohol, which is inconsistent with the lack of supporting evidence for drugs (box 1).[36]

Dedicated large scale efforts to deal with implementation problems and raise brief intervention rates have been largely unsuccessful.[37] General practitioners may be more concerned with identifying and dealing with patients' existing problems or at least with risks easily perceived as relevant (eg, drinking in the context of hepatitis C infection).[38] Efforts to stimulate attention to alcohol in primary care have probably been trying to do too many things at once. For example, there has been a lack of clarity about prevention versus treatment, mirroring the different public health and clinical rationales for tackling alcohol, and too little attention to routine practice contexts.[3 21] Similar difficulties have occurred with other complex conditions, such as depression, for which screening has been questioned because clear evidence of benefit is lacking.[39 40]

What should be done?

Treating alcohol more like hypertension or hypercholesterolaemia in primary care has been proposed, with regular checks and starting treatment if brief advice does not reduce risk.[38] Examinations of performance in the NHS[41] and other health systems[42] have identified systemic factors that influence effectiveness. Current failings are probably costly, and design of health systems needs further investigation.[43] Stronger scrutiny of the limitations of the evidence will also prove useful—for example, more realistic appraisals of the possible contribution of brief advice unsupported by environmental and other policy interventions.[7] Such scrutiny could help clinicians to decide how and when to explore whether alcohol is related to the patient's presenting problems.[21]

Implementation of any national, regional, or local alcohol programme clearly needs to be accompanied by evaluation given the uncertainties about their effects. The complexities involved in such evaluations should be transparently managed to generate confidence that the evidence is robust.

The pace of development of alcohol interventions has been disappointing, perhaps because it is not sufficiently led or championed by generalist clinicians. We need more clarity about both the extent of unmet needs of people with alcohol use disorders[44] and the inability of individual level prevention to tackle the complexities of addiction problems. Box 2 gives some suggestions for future research. Systematic reviews of alcohol

treatment trials identify few studies at low risk of bias[45] and adherence to CONSORT reporting guidance is weak.[46]

It makes little sense to consider screening and other preventive activities for alcohol in isolation from other risky health behaviours and probably also mental health problems. The resultant burden for practitioners and disconnect from the concerns of the patient are barriers to meeting public health and individual patient goals. We need to think strategically about alcohol within broad based prevention approaches and consider separately how to manage care for those with severe problems.

The internet and mobile devices provide new possibilities for standalone or facilitated interventions.[47] Brief interventions research has helped develop thinking about how population perspectives may be applied to better understand addiction problems, and how to help people avoid or reduce them.[47] Perhaps we should redefine brief intervention as a new guiding principle, so that interventions should be as brief as is necessary to help someone avoid or reduce consequences, rather than being defined by content, time, or number of sessions. The internet now allows extensive exposure to interventions and more needs to be done to integrate person-to-person with online support to address the full of unhealthy drinking, non-medical drug use, other behavioural risk factors, and indeed other issues in the context of patient centred care.[48] We are at an early stage in the development of such evidence.

It is not unusual that evidence is messy, or weaker than we might want it to be; we should find better ways to talk about this, and have more mature conversations with policy makers. We have good reason to question whether brief interventions work in routine practice, though we do know that in certain circumstances they can make a difference, and we need to better understand how, when, and why. We hope that this article stimulates discussions about responsibility for alcohol in general practice and in health systems more broadly among practitioners, managers, commissioners, and planners, as well as researchers. Upgrading prevention and public health may require structural change in general practice and in other parts of health systems, and this requires a much stronger evidence base than currently exists.

Contributors and sources: Both authors do research on alcohol and other addictive behaviours. JMcC wrote the first draft, which was revised by RS. JMcC is the guarantor.

Conflicts of interest We have read and understood BMJ policy on declaration of interests and declare the following interests. RS is and has been principal investigator of grants awarded to Boston Medical Center and Boston University from the National Institutes of Health (including NIAAA and NIDA, and the Substance Abuse and Mental Health Services Administration) to study the management of unhealthy substance use, including to test the accuracy of screening and the efficacy of screening, brief intervention and referral to treatment. He has been paid to speak or had travel reimbursed to speak at numerous professional and scientific organizations (all non-profit). He is an author and editor for Springer, *UpToDate*, the ASAM, *The BMJ,* and the Massachusetts Medical Society (royalties and honoraria). Wolters Kluwer has supported conference travel to an editors' meeting. He is currently principal investigator of a study of the comparative effectiveness of alcohol medications for which Alkermes is providing injectable naltrexone at no charge. He has been paid to serve as an expert witness in malpractice cases related to the management of alcohol and other drug disorders.

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Box 2: Research questions for enhanced health system management of alcohol

- What do the general public understand about unhealthy alcohol use, and what are the implications for receptivity to interventions?
- What do clinicians see as their roles in relation to unhealthy alcohol use and prevention more broadly, and how can strategic health system-wide prevention be better designed?
- What knowledge and skills do clinicians need to prevent and treat the consequences of heavy alcohol use?
- How can the prevention and management of unhealthy alcohol use be delivered in the contexts of comorbidities, multiple risk behaviours and conditions, and health inequities?
- How much treatment of more severe alcohol use disorders should be delivered in general practice, and what are the roles of specialist services?
- How far can the effectiveness of alcohol interventions be enhanced in comparison with existing care for patients, and with what cost effectiveness and cost savings?

Summary points

The limitations of research on brief interventions for alcohol in general practice have received too little attention

Existing evidence should be interpreted as demonstrating efficacy, at best

Important questions remain about generalisability of findings and implementation

Health system approaches to the management of unhealthy alcohol use and other health risk behaviours and problems needs to be more joined up

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