Mental Health-Substance Use (6 book series)

Book 4: Principles of intervention in mental health-substance use

Chapter 8: Brief intervention: mental health-substance use

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(On a separate sheet include a brief biography of up to 100 words for the author text of the book)
Introduction

This chapter will serve to provide a definition of brief intervention and details regarding its development from humble origins to theory base. Evidence will be set out regarding the effects of brief intervention on substance use, including alcohol, tobacco, cannabis, stimulants, benzodiazepines, opiates and multiple substance use. For each of these substances the evidence for brief intervention and mental health substance use will be presented.

What is brief intervention?

The term brief intervention refers to a range of clinical activities which is focused on the use of a talk-based therapeutic approach aimed at changing certain health-limiting behaviours (usually alcohol or other drug consumption in those consuming at high risk levels or quitting smoking) and their associated problems. Fundamental components of brief intervention include simple structured advice, written information and behaviour change counselling and each of these elements can either occur alone or in combination with each other (Babor & Higgins-Biddle 2000). Brief interventions have also been delivered either in a single appointment or a series of related sessions. Sessions can last between 5 and 60 minutes, however brief interventions do not tend to exceed 5 sessions in total (Kaner et al. 2007). Although there is wide variation in brief intervention activity there are a number of essential principles to delivery; brief interventions should obviously be short and should be deliverable by health professionals without specialist training and who are working in busy health care settings. Brief interventions should be often based on a fundamental set of ingredients which is summarized by the acronym FRAMES (Miller & Sanchez 1993).

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<tr>
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Menu provides a variety of options for change
Empathy emphasizes a warm, reflective and understanding approach
Self-efficacy encourages optimism about changing behaviour

Again, given the variability in activity, it is also important to explain what brief intervention is not and that it is merely traditional treatment (psychiatric or psychological) carried out in a short time-scale (Babor 1994; Miller & Rollnick 1991); it has more specific properties than that. Brief intervention is a technique that a variety of health professionals (GPs, nurses, pharmacists, health workers, drug workers, social workers, etc.) can easily incorporate into their practice in a variety of cultural settings, populations and health care systems (Heather 2007). Brief interventions are supported by a large literature on their efficacy and cost-effectiveness with a wealth of trials and meta-analyses indicating that brief interventions are efficacious as a secondary prevention strategy. Brief interventions are also highly cost-efficient due to the minimal cost of the intervention and the breadth of scope for prevention of more serious and more costly problems. Brief interventions are particularly effective in the field of substance use (Dunn et al 2001).

Origins of brief intervention

Brief intervention was first developed in the United Kingdom within the smoking cessation field. A study carried out by Russell et al (1979) revealed that a small proportion (5.1%) of patients had stopped smoking one year after a simple intervention provided by their general practitioner. This intervention comprised brief advice to quit smoking plus a leaflet with additional information to help patients to achieve their goals (Russell et al. 1979). While the results from this study appear modest the authors hypothesised estimated that such a simple intervention could easily be delivered by GPs to all smokers who consulted; if implemented by all GPs in the UK, this could potentially result in over half a million smokers quitting each year. They claimed that this figure could not even be matched if the number of specialist withdrawal clinics were doubled. A model for brief interventions, derived from this pioneering study, continued to be used within the field of smoking cessation, however it was further applied to other areas of public health. In particular,
brief intervention for excessive alcohol consumption has proved successful in a wide range of published studies (Kaner et al. 2007).

**Brief intervention theory base**

Brief interventions are firmly grounded in theory from the field of psychology which is concerned with understanding, predicting and changing human behaviour. The Transtheoretical (Stages of Change) Model has been widely used to guide brief intervention strategies. Initially developed to describe the stages people progress through in smoking cessation (Prochaska et al. 1985), this model has since proved influential in guiding treatment for a range of addictive behaviours. Individuals are characterised as belonging to one of six “stages” (precontemplation, contemplation, preparation, action, maintenance, termination) and progress through these stages sequentially; *it may take several cycles around the stage of change (ie, relapses)* before a sustained recovery is achieved. The model also proposed that different self-change strategies or “processes of change” are involved in moving between different stages and that different stages are associated with different beliefs. It argued that brief interventions to promote change should be designed so that they are appropriate to an individual’s current stage. Although the theory has provided an influential heuristic model, evaluations to date have not supported its use in improving treatment outcomes (West 2005).

*In more general terms,* brief intervention is based in social cognitive theory which is drawn from the concept of social learning, which was heavily influenced by the work of Albert Bandura (Bandura 1986). Bandura posited that behaviour occurred as a result of a dynamic and reciprocal interaction between individual, behavioural and environmental factors, the latter including both physical (structural) and social aspects. Thus each individual has personal, cognitive (thinking) and affective (feeling) attributes that affect how they respond to the external world. Individuals also differ in how they construe and are reinforced by a particular behaviour. In addition, individuals also have the capacity to observe and learn from the behaviour of other people around them. Thus behaviour change interventions based on social cognitive theory focus on both personal and contextual factors. Important components include individual’s beliefs and attitudes about a behaviour, their self-efficacy or the sense of personal confidence about changing behaviour and a view about how an individual’s...
behaviour sits in relation to the way that other people behave (normative comparison). All these factors influence an individual’s motivation for and ability to change their behaviour. Consequently, brief intervention addresses, in a structured format, an individual’s knowledge, attitudes and skills in relation to behaviour so as to encourage behaviour change for subsequent health benefit.

In terms of therapeutic application, brief interventions in pioneering research (Heather et al 1986) were based on principles of cognitive-behavioural therapy (CBT) which was itself close linked to the social learning perspective. This tradition was continued in the Drink-Less pack (McAvoy et al. 1997), a brief intervention developed for the WHO Collaborative Project, The Identification and Management of Alcohol-related Problems in Primary Care (Heather 2007). This was based on a six-step plan consisting of (i) examining reasons for drinking; (ii) selecting and endorsing good reasons for cutting down; (iii) identifying personal high-risk situations for excessive drinking; (iv) choosing and practicing coping skills in preparation for the high-risk situations; (v) eliciting social support for a change in drinking; (vi) planning for relapse prevention. These elements represent a condensed version of the treatment modality known as behavioural self-control training (Hester 1995).

Recently in brief intervention research and practice there has been a move away from condensed CBT towards adaptations of motivational interviewing (MI) (Miller & Rollnick 2002). MI is a patient-centred interviewing style with the goal of resolving conflicts regarding the pros and cons of change, enhancing motivation and encouraging positive changes in behaviour. The interviewer style is characterised by empathy and acceptance, with an avoidance of direct confrontation. Any statements associated with positive behaviour change that the patient brings up in the discussion are encouraged so as to support self-efficacy and a commitment to take action. Although within the time constraints for brief interventions, particularly in general health and social care settings, it is not possible to carry out MI, the general ethos and some of the techniques of MI can be adapted for this purpose (Rollnick et al 1999). Adapted or condensed versions of MI are often referred to as Behaviour Change Counselling (BCC).
Brief intervention and alcohol

There is now a very strong evidence-base supporting the effectiveness of brief alcohol intervention at reducing alcohol-related problems in non-treatment seeking adults. More than a hundred clinical trials have been conducted to evaluate the efficacy and cost-effectiveness of alcohol screening and brief intervention in primary care, emergency departments and trauma centres (Babor et al. 2007). Many systematic reviews and meta-analyses have reported beneficial outcomes of brief intervention, compared to control conditions, in terms of reductions in hazardous and harmful drinking (Freemantle et al. 1993)(Bien et al. 1993) (Agost 1995)(Kahan et al. 1995)(Wilk et al. 1997)(Poikolainen 1999)(Moyer et al. 2002) (Ballesteros et al 2004)(Whitlock et al. 2004)(Bertholet et al. 2005)(Kaner et al. 2007). Most of this research evidence has focused on primary health care and has reported consistent beneficial effects of brief alcohol intervention in terms of reduced alcohol consumption and alcohol-related problems. A recent review of the impact of brief interventions on substance use and co-morbid mental health conditions identified two studies which related specifically to alcohol misuse. Both studies found a positive impact of brief intervention on alcohol reporting positive drinking outcomes at 6 months in terms of abstinence rates and reduced weekly drinking (Kaner et al. 2009).

Brief intervention and tobacco

There have also been numerous studies of brief interventions for smoking cessation. Reviews of the evidence have shown that brief advice results in significant increases in smoking cessation among patients when compared to no advice or usual care. It has been concluded that when health practitioners provide brief interventions for smoking it increases the likelihood that the patient will successfully quit and remain a non-smoker 12 months later (NICE 2006) (Stead et al 2008). National surveys have demonstrated that smoking is 2-3 times more common in people with mental health problems than in the general population. A recent review of the impact of brief interventions on substance use and co-morbid mental health conditions identified two studies which related specifically to tobacco use, however only one study found a positive impact of brief intervention on smoking. This study reported a significant reduction in cigarette use at three months in patients with a range of psychiatric disorders but this effect disappeared at one year. However, substance misusers with
psychiatric co-morbidity were more likely to attempt to quit smoking compared to those with substance disorders alone (Kaner et al. 2009).

In contrast to the alcohol and tobacco literature much less research has been conducted on the efficacy of brief interventions for illicit drug use.

Brief intervention and cannabis

Cannabis abuse or dependence appears to be responsive to the same types of treatment as other substance dependencies. Although research is limited and of reduced lower quality a systematic review of randomised controlled trials involving self-identified problem cannabis users in the community has show brief interventions (including cognitive behavioural, motivational enhancement and contingency management therapies) to be efficacious for reducing cannabis use and associated consequences in adult populations (McRae et al. 2003). A year later another review concluded that, while there was a general lack of research into brief interventions for cannabis use disorders, with few good quality randomised controlled trials mainly carried out in America and Australia, brief cognitive-behavioural therapy had the strongest evidence of success for adults with cannabis dependence. However, among adolescents involved in the juvenile justice system and those with severe, persistent mental illness, longer and more intensive therapies provided by interdisciplinary teams may be required (Copeland 2004).

Brief interventions appear to be generalisable to adolescent populations, with a recent randomised controlled trial of brief interventions consisting of a single session of motivational interviewing for young (non-treatment seeking) cannabis users (aged 14-19 years) in Australia resulting in greater reductions in cannabis use for the brief intervention group compared to a delayed treatment control condition at 3 month follow up (Martin et al. 2005) (Martin & Copeland 2008). When considering brief interventions for mental health and cannabis use, again research evidence is again extremely limited. An Australian randomised controlled trial compared a cannabis-focused intervention for young people with first-episode psychosis to a clinical
control condition which involved psycho-education. Although no significant
differences were found between the groups, both the specific cannabis-focused
intervention and the brief psycho-education were associated with reduced cannabis
use in young people with first-episode psychosis. As neither intervention was found to
be superior, relatively simple, brief interventions may be worth implementing in the
first instance to reduce cannabis use in this population (Edwards et al. 2006).

**Brief intervention and stimulants**

Again, evidence for brief interventions and stimulant use is relatively limited in the
number of well-conducted controlled studies. However, a review of the literature on
psychosocial interventions for amphetamine use concluded that brief (cognitive
behavioural) intervention was feasible and moderately effective among users of
amphetamine but that more research was needed (Baker & Lee 2003). Brief
(cognitive-behavioural) interventions have shown their effectiveness in two six-month
randomised controlled trials in regular users of amphetamine in Australia (Baker et al
2001) (Baker et al. 2005). However, with psychiatric inpatients the brief intervention showed a lack of effectiveness, so the authors concluded that
people with moderate to severe levels of depression may best be offered more
intensive interventions for amphetamine use from the outset, with further treatment
for amphetamine use and/or depression depending on response (Baker et al. 2005). A
more recent randomised controlled trial of brief intervention for students (14-19 year
old) with methamphetamine use disorders in Thailand found short-term (8 week)
benefits of brief intervention in terms of a decrease in the number of days that
methamphetamine was used (Srisurapanont 2007).

Brief (motivational) motivationally-based intervention may also help patients achieve
abstinence from cocaine. A randomised controlled trial of peer-delivered brief
intervention for non-treatment-seeking cocaine users in the USA found the
intervention group was more likely to be abstinent for cocaine than the control group
(Bernstein 2005). However, a randomised controlled trial of a brief (motivational)
intervention among young (16-22 years old) ecstasy and cocaine users found positive
reactive effects on stimulant use for both the brief intervention and control group who
received written health risk information materials (Marsden et al 2006).
Brief interventions and benzodiazepines

Only three randomised controlled trials have been identified which have evaluated brief interventions to reduce benzodiazepine use. However all three studies produced positive effects of brief intervention (a GP letter, simple advice and/or self help booklet) significantly reducing benzodiazepine use compared to control groups (Cormack et al. 1994)(Bashir et al. 1994)(Heather et al. 2004). There is currently a need for research to determine the efficacy of brief intervention for mental health benzodiazepine use.

Brief intervention and opiates

There is even less research into brief intervention and opiate use however brief (motivational) intervention does show promise for opiate users. Opiate users attending a methadone programme who received a brief motivational intervention were more committed to abstaining from their drug use, reported fewer drug related problems, were more compliant with treatment and were slower to relapse (Saunders et al 1995).

While a randomised controlled trial of peer delivered brief intervention for non-treatment seeking heroin users in the USA found the intervention group was more likely to be abstinent than the control group for heroin (Bernstein 2005). Again, there is a need for research to determine the efficacy of brief intervention for mental health opiate use, particularly for those with less severe dependence who are not actively seeking help.

Brief intervention and multiple substances

Most brief interventions focus on a single behaviour however health professionals often manage patients who concurrently drink and smoke or use a combination of other substances. Thus it is important to determine if brief intervention can be successfully used across different areas of behaviour. Much of the evidence regarding brief interventions for multiple substance use focuses on adolescents and young people. A systematic review of brief interventions for adolescents in reducing alcohol, tobacco and other drugs concluded that across a diverse range of settings and therefore probably diverse clients, brief interventions conferred benefits to adolescent substance users (Tait & Hulse 2003). In addition a single session of motivational
interviewing (for alcohol, tobacco, and illicit drug use) resulted in a reduction in use of these drugs at 3 month follow up among 200 young people in a randomised controlled trial in the United Kingdom (McCambridge & Strang 2004), however the beneficial effects were not maintained at 12 months (McCambridge & Strang 2005). An over-view of systematic reviews looking at interventions to reduce harm associated with adolescent substance use (including alcohol, tobacco, non-medical use of prescribed medications, cannabis, heroin, cocaine, amphetamine-type substances and hallucinogens) concluded that there was review-level evidence of efficacy of screening and brief interventions but still a need to evaluate screening and brief interventions them in real-world settings to establish effectiveness (Tambourou et al. 2007). However, a Cochrane review based on findings from 25 randomised controlled trials which assessed the effectiveness of psychosocial interventions (including brief interventions) to reduce substance use by people with a severe mental illness found no compelling evidence to support any one psychosocial treatment over treatment as usual and concluded the need for more research (Cleary et al 2008). A more recent systematic review of the impact of brief interventions on substance use and co-morbid mental health conditions found the evidence of positive brief intervention effects in patients with dual substance use and mental health problems was unconvincing. Brief intervention trials which targeted more than one type of substance use, of which 4 were identified, generally reported null findings or a change in just one behaviour (Kaner et al 2009). Thus further research is needed on interventions to promote positive change across mental health and multiple substance use domains.

Conclusion

Research on brief interventions for alcohol and tobacco has accumulated rapidly during the past two decades. Not only are the procedures generally effective with a variety of population groups, they can be delivered with equal effect by a variety of health care providers. Less evidence is available regarding brief interventions for other drug users, but several studies show positive effects. Research indicates the global efficacy of brief intervention for illicit and licit drugs in the general population and there is a growing but diverse evidence-base covering brief interventions for mental health substance use. However, research findings on brief intervention for substance use and mental health problems are currently inconclusive. Nevertheless,
the recognition of psychiatric comorbidity by patients may be a good platform for behaviour change intervention. Thus further research is needed on interventions to promote positive change across mental health and substance use domains (Kaner et al. 2009).

References


McCormick, J., & Strang, J. (2004). The efficacy of single-session motivational interviewing in reducing drug consumption and perceptions of drug related risk and
harm among young people: results from a multi-site cluster randomized trial. 
*Addiction, 99, 39-52.*


**To learn more**

- Peter Miller. 2009. Evidence-based Addiction Treatment, Elsevier, California, USA.
- Screening and brief alcohol intervention materials available at http://www.ncl.ac.uk/ihs/enterprise/

**Useful contacts**

Alcohol Concern, 64 Leman Street, London, E1 8EU, Tel: 020 7264 0510, Fax: 020 7488 9213, E-mail: contact@alcoholconcern.org.uk.

http://www.alcoholconcern.org.uk/

International Network on Brief Interventions for Alcohol Problems (INEBRIA)

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Add NIDA, NIAAA?