

Evaluating the Impact of Training Health Professionals to Deliver Brief Motivational and Skills-Based Interventions for Cannabis Use Disorder

Dion Alperstein and Jan Copeland

National Cannabis Prevention and Information Centre, University of New South Wales, Australia

Background: While there is considerable evidence that brief motivational and skills-based interventions for substance use are effective, little is known regarding the transfer of knowledge from research to practice. This study aims to evaluate the effectiveness of two half-day didactic clinical training workshops for allied health workers, which did not incorporate feedback or supervision, via independent follow-up three months post training.

Methods: In total, 1322 participants attended either or both of the evidence-based treatment workshops run by the National Cannabis Prevention and Information Centre. Of those participants, 495 (37%) completed an online follow-up evaluation three months later regarding their use of the newly learnt intervention(s).

Results: At follow-up, 270 (54.5%) participants had an opportunity to use the skills and 144 (53.3%) of those participants reported having used the clinical skills taught in the workshop. Of those who used one of the interventions, 90 (62.5%) participants reported their clients had reduced or quit their cannabis use. Furthermore, 43 (30%) of these participants had attempted to train others in the workplace in the techniques learnt in the workshop.

Conclusion: Even a half-day didactic clinical training workshop on evidence-based brief cognitive-behavioural techniques delivered to clinicians working in the field can improve knowledge and confidence among clinicians and outcomes among their clients with cannabis use related problems.

■ **Keywords:** training, technology transfer, cognitive behavioural therapy, evidence-based practice, dissemination, marijuana

There is substantial evidence supporting the efficacy of motivational interviewing (MI) and cognitive-behavioural techniques (CBT) for treating substance use disorders in general (Miller & Mount, 2001; Miller, Yahne, Moyers, Martinez, & Pirritano, 2004; Schoener, Madeja, Henderson, Ondersma, & Janisse, 2006; Sholomskas et al., 2005), and a growing body for cannabis use disorder specifically (Copeland, Swift, Roffman, & Stephens, 2001; Martin & Copeland, 2008). In contrast, little is known regarding the translation of the manualised interventions in research settings to effective clinical interventions in everyday practice (Baer et al., 2004; McGovern, Fox, Haiyi, & Drake, 2004; Miller et al., 2004; Miller, Sorensen, Selzer, & Brigham, 2006; Morgenstern, Morgan, McCrady, Keller, & Carroll, 2001; Rubak, Sandboek, Lauritzen, Borch-Johnsen,

& Christensen, 2006; Sholomskas et al., 2005). The most common form of disseminating evidence-based practice to health professionals is through a single (0.5–2 day) didactic workshop (Baer et al., 2004; DeViva, 2006; Miller & Mount, 2001; Sholomskas et al., 2005). Transferring evidence-based treatment into healthcare settings is most effective when the workshop (a) describes the principles underlying the intervention; (b) provides coaching and practice, such as role-playing (Miller & Mount, 2001; Miller

ADDRESS FOR CORRESPONDENCE: Dion Alperstein, National Cannabis Prevention and Information Centre, University of New South Wales, 22–32 King St, Randwick, 2031, NSW, Australia. E-mail: d.alperstein@unsw.edu.au

et al., 2004; Miller et al., 2006; Resnicow, Dilorio, Soet, Borrelli, & Hecht, 2002; Schoener et al., 2006; Sholomskas et al., 2005); (c) involves follow-up supervision or feedback for the clinicians (Miller & Mount, 2001; Miller et al., 2004; Miller et al., 2006; Morgenstern et al., 2001; Resnicow et al., 2002; Schoener et al., 2006; Sholomskas et al., 2005) and (d) includes motivational interviewing (MI) and cognitive-behavioural techniques (CBT) (Baer et al., 2004, Miller et al., 2004, Miller et al., 2006). The literature has shown that those workshops that do not include supervision or feedback for the clinician demonstrate only marginal or no long-term impact in changing clients' behaviour and demonstrate only short-term effects on clinicians' uptake of their newly learnt skills (Baer et al., 2004, Miller et al., 2004, Miller et al., 2006). Unfortunately, workshops that do include the above principles are relatively time-consuming and costly and are rarely implemented in community settings (Resnicow et al., 2002; Sholomskas et al., 2005).

This study aimed to evaluate the effectiveness of two half-day standalone didactic clinical training workshops, via independent follow-up three months post training. The study reports on training in two intervention models, both based on the findings of randomised control trials. The evaluation includes investigation of (a) the percentage of clinicians who have utilised the intervention, (b) how many components of the intervention were utilised, (c) how many clients to whom they subsequently delivered the intervention, and (d) any changes to clients' behaviours regarding their cannabis use.

Method

Participants

Participants either actively sought workshop participation and directly contacted the National Cannabis Prevention and Information Centre (NCPIC), or their organisation requested they attend the workshop for professional development. From the 1322 participants trained in the two interventions, 882 (66.7%) participants consented to be followed up three months after the training. The main reason for not providing consent was that these participants were not clinicians and could thus not apply the intervention to their work (440; 33.3%). Among those who consented, 495 (56.1%) participants completed the online, 3-month follow-up evaluation. Participants were deemed lost to follow-up after at least four emails and two telephone call attempts were made with no response. A small number of participants were not able to be contacted at all as they had provided an incorrect e-mail address and phone number ($n = 77$; 8.7%), had changed workplaces ($n = 11$; 1.3%) or had gone on leave ($n = 12$; 1.4%) during the three months post training. Of the participants who completed the online follow-up survey, 270 (Group A) saw clients in a one-on-one setting and delivered structured interventions and treatments that usually lasted 30 minutes or more (e.g., counsellors or psychologists). A further 183 participants (Group B) saw clients in a

face-to-face setting; however, providing treatments was not a part of their primary role. They identified as being able to educate and refer clients and to occasionally provide brief treatments. The remaining 42 participants (Group C) did not see any clients face-to-face or provide any treatment and were not the correct target group for these training workshops.

Procedure

At the commencement of the workshop participants completed a self-administered survey using a 5-point Likert scale on their level of knowledge in relation to: cannabis dependence and its associated problems; willingness and confidence to intervene with people experiencing cannabis dependence; and current knowledge of methods in assisting people with cannabis dependence. Knowledge and confidence were again assessed via an online survey, three months after the workshop. Participants were requested to complete the survey following instructions by e-mail or phone call. The follow-up evaluation assessed how many participants delivered the target intervention, how many people they had delivered the intervention to and how many sessions of the intervention they had used. Participants were also asked four questions: (1) whether they had assessed and educated a client in relation to their cannabis use, including dependence and tolerance; (2) whether any clients had reduced or quit their cannabis use; (3) whether they had referred their client(s) on for more help; and (4) whether they had attempted to train others in their workplace with the techniques they had learnt in the workshop.

Training

Each training workshop was three to four hours in duration, depending on the participant group's level of experience and knowledge of MI and CBT required to successfully deliver each intervention type. The workshops took place during the 16-month period between November 2008 and March 2010. The 'Adolescent Cannabis Check-Up' (ACCU) is a brief motivational and cognitive-behavioural evidence-based intervention that was designed for young cannabis users, irrespective of their treatment-seeking status, and can be used with adults in order to increase their motivation to change (Martin & Copeland, 2008). The 'Brief CBT Intervention 1-6 Sessions' (BI 1-6) introduced participants to a comprehensive brief intervention that can be delivered over 1 to 6 sessions and is designed to assist clients to moderate or abstain from cannabis use (Copeland et al., 2001). The intervention is supported by brief guidelines for the clinician and a booklet for the client (downloadable at: <http://ncpic.org.au/workforce/alcohol-and-other-drug-workers/training-and-workshops/>). These materials were demonstrated and provided to participants in the workshop, along with an overview of the supporting evidence base. Participants were encouraged to role-play the key aspects of the interventions during the workshop and were provided with feedback. The training was conducted by a

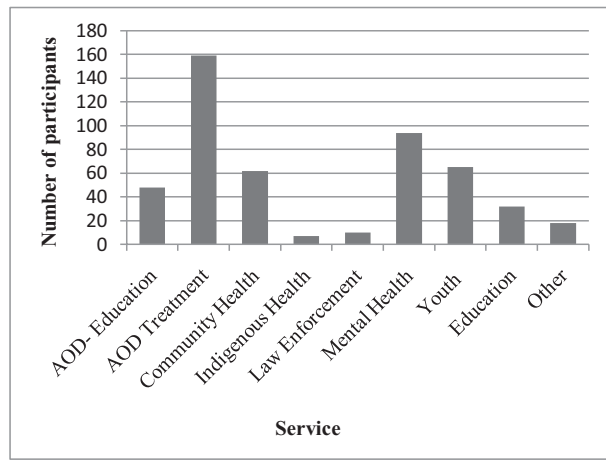


FIGURE 1

Distribution of services participants worked for at the time of training.

Note: The majority of participants were from Alcohol and Other Drug (AOD) treatment services, followed by those working in mental health services, youth services and community health services. Participants who nominated the category 'other' named services such as: employment, sexual health, support worker, AOD policy and specific organisations.

senior clinical psychologist, with a training qualification and extensive experience. In addition, she also worked as a clinician on each of the randomised controlled trials used to evaluate the interventions being trained. Given the novel nature of the study there was no hypothesis testing and only descriptive statistics are reported.

All participants signed informed consent for the follow-up survey approximately three months post training.

Results

Demographics

In total, 2.8% of the workshop participants were Aboriginal or Torres Strait Islander people. The majority of participants were from New South Wales (37%), Queensland (21.6%) and Victoria (18.9%). This was followed by those working in South Australia (8.9%), Tasmania (5.9%), Western Australia (4.2%), Australian Capital Territory (2.4%) and the Northern Territory (1.8%). The distribution of participants by state roughly represents that of the Australian population. The participants' service and job titles at time of training are illustrated in Figures 1 and 2. Due to the novel nature of the study, no other demographic information was collected of participants.

All Groups

All participants completed the questionnaire on knowledge and confidence in assisting people with cannabis dependence before the training and 489 (99%) at 3-month follow-up. Participants showed a baseline knowledge/confidence mean score of 72.1% and a follow-up mean score of 79.5%, which is an overall improvement of 7.4%. In real terms, this

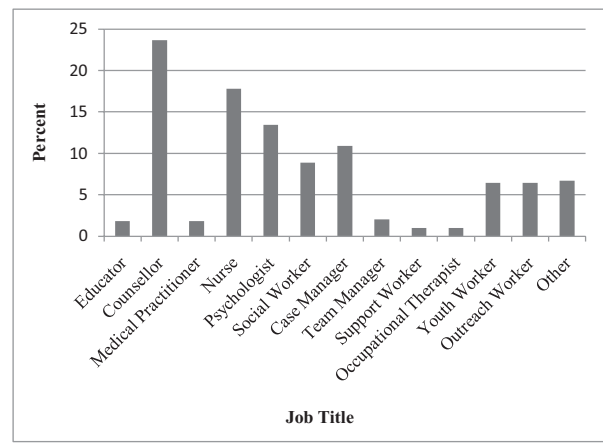


FIGURE 2

Distribution of participants' job titles at the time of training.

Note: Almost 25% of the participants were counsellors, with nurses, psychologists and case managers the next most popular jobs. Participants who selected 'other' provided 21 different job titles such as probation officer, police, administrator, prevention officer, alcohol and other drug professional and chief executive officer.

represents a change from 'adequate' to 'quite confident', 'not sure' to 'willing' and from 'adequate' to 'good'. In addition, 145 (30%) participants had attempted to train up others in the workplace with the techniques they had learnt in the workshop/s they attended.

Group A

Table 1 outlines the use of the two clinical evidence-based interventions, including the average number of clients the

TABLE 1

Delivery of ACCU and BI 1-6 from Participants in Group A

Use of intervention	ACCU (2 sessions)	BI 1-6 (6 sessions)
	n = 160	n = 214
Percentage of participants using intervention	53.5 (n = 85)	35.3 (n = 73)
Number of clients who received target intervention	Mean: 5.8 Range: 1-50	Mean: 5.7 Range: 1-50
Breakdown of the maximum number of sessions received by clients as a percentage	1: 100 (n = 85) 2: 39.3 (n = 57) 3*: 38.6 (n = 56)	1: 27.5 (n = 42) 2: 18.3 (n = 28) 3: 19 (n = 29) 4: 9.8 (n = 15) 5: 7.8 (n = 12) 6: 17.6 (n = 27)

Note: Participants' use of the two clinical evidence-based interventions. Participants who attended both the ACCU and Brief CBT Intervention 1-6 Sessions used the intervention with an average of five participants within three months of the training.

*Although the ACCU only has two sessions, a large percentage of participants reported their client came back for a third optional session where they discussed and identified problem areas, developed strategies and set up a quit date.

workshop was delivered to and the number of sessions each clinician delivered to cannabis-using clients.

Of those in Group A, 62.1% reported their clients reduced their use or quit using cannabis, while 6.4% were unsure.

Group B

Of those in Group B, 76.5% ($n = 140$) had assessed and educated a client in relation to their cannabis use since the workshop. For example, they may have assessed the client's current use of cannabis and provided them with information about the harmful effects of cannabis. Furthermore, 80.7% ($n = 146$) of Group B educated their client in relation to dependence, such as tolerance and withdrawal. A total of 35.5% ($n = 64$) of this group had used part or all of the ACCU, while 78.7% ($n = 144$) referred clients on for more help.

Discussion

Despite the growing evidence supporting the effectiveness of MI and CBT for treating substance use disorders, there have been limited reports in the literature on evaluation of these brief clinical trainings, the most commonly used method of professional development training employed in the field. Findings from this study confirm that a single didactic workshop on MI and/or CBT, even when it does not include supervision or feedback, can lead to the clinical uptake of evidence-based interventions. While 53.3% of participants reported using the skills learnt in the workshop, 62.5% reported that their client had reduced or quit their cannabis use. Almost one third of these clinicians had attempted to disseminate these skills in their workplace. Furthermore, all participants' knowledge and confidence in delivering an intervention and helping those with cannabis use disorder increased after training.

There are a number of limitations to this study. Firstly, only 67% of trained participants agreed to be followed up and, of these participants, only 56% filled out the online 3-month follow-up questionnaire. There was insufficient data to ascertain whether those who did or did not participate were different in significant ways. Secondly, all data collection measures were by means of self-report, by the clinicians only. Client outcomes, that is, whether clients had quit or reduced their cannabis use may have been overestimated by clinicians due to the demand characteristics inherent in the study design. This limitation is somewhat mitigated by the anonymous nature of online reporting and that they were not contacted again by the training clinician. It would be beneficial in future studies to follow up the clients directly, rather than relying on the clinician's judgment regarding client outcomes (Baer et al., 2004; McGovern et al., 2004; Miller et al., 2004; Miller et al., 2006; Morgenstern et al., 2001; Sholomskas et al., 2005). While half-day didactic workshops

are not best practice (Resnicow et al., 2002; Velasquez et al., 2000), these workshops are the most common and practical way of disseminating postgraduate training in real world settings (Baer et al., 2004; DeViva, 2006; Miller & Mount, 2001; Sholomskas et al., 2005). In future studies, in addition to examining clinician behaviour, outcomes of the clients would also need to be measured in a systematic and objective manner.

This study demonstrates encouraging data that half-day didactic clinical training workshops can improve client outcomes and also assist in disseminating clinical uptake of evidence-based interventions. Thus, there is potential that this model could be used for sustainability in developing countries as they form responses to increasing cannabis use (Howard, Ali, & Robins, 2011).

References

- Baer, J.S., Rosengren, D.B., Dunn, C.W., Wells, E.A., Ogle, R.L., & Hartzler, B. (2004). An evaluation of workshop training in motivational interviewing for addiction and mental health clinicians. *Drug and Alcohol Dependence*, *73*, 99–106.
- Copeland, J., Swift, W., Roffman, R., & Stephens, R. (2001). A randomised controlled trial of brief interventions for cannabis use disorder. *Journal of Substance Abuse Treatment*, *21*, 55–64.
- DeViva, J.S. (2006). The effects of full-day and half-day workshops for health care providers in techniques for increasing resistant clients' motivation. *Professional Psychology: Research and Practice*, *37*(1), 83–90.
- Howard, J., Ali, H., & Robins, L. (2011). Alcohol, cannabis and amphetamine-type stimulants use among young Pacific Islanders. *Drug and Alcohol Review*, *30*, 104–110.
- Martin, G., & Copeland, J. (2008). The Adolescent Cannabis Check-up: randomised trial of a brief intervention for young cannabis users. *Journal of Substance Abuse Treatment*, *34*(4), 407–414.
- McGovern, M.P., Fox, T.S., Haiyi, X., & Drake, R.E. (2004). A survey of clinical practices and readiness to adopt evidence-based practices: Dissemination research in an addiction treatment system. *Journal of Substance Abuse Treatment*, *26*, 305–312.
- Miller, W.R., & Mount, K.A. (2001). A small study of training in motivational interviewing: Does one workshop change clinician and client behaviour. *Behavioural and Cognitive Psychotherapy*, *29*, 457–471.
- Miller, W.R., Sorensen, J.L., Selzer, J.A., & Brigham, G.S. (2006). Disseminating evidence-based practices in substance abuse treatment: A review with suggestions. *Journal of Substance Abuse Treatment*, *31*, 25–39.
- Miller, W.R., Yahne, C.E., Moyers, T.B., Martinez, J., & Pirritano, M. (2004). A randomized trial of methods to help clinicians learn motivational interviewing. *Journal of Consulting and Clinical Psychology*, *74*(6), 1050–1062.

- Morgenstern, J., Morgan, T.J., McCrady, S., Keller, D.S., & Carroll, K.M. (2001). Manual-guided cognitive-behavioral therapy training: A promising method for disseminating empirically supported substance abuse treatments to the community. *Psychology of Addictive Behaviors, 15*(2), 83–88.
- Resnicow, K., Dilorio, C., Soet, J.E., Borrelli, B., & Hecht, J. (2002). Motivational interviewing in health promotion: It sounds like something is changing. *Health Psychology, 21*(5), 444–451.
- Rubak, S., Sandboek, A., Lauritzen, T., Borch-Johnsen, & Christensen, B. (2006). An education and training course in motivational interviewing influence: GPs' professional behaviour—Addition Denmark. *British Journal of General Practice, 56*, 429–436.
- Schoener, E.P., Madeja, C.L., Henderson, M.J., Ondersma, S.J., & Janisse, J.J. (2006). Effects of motivational interviewing training on mental health therapist behavior. *Drug and Alcohol Dependence, 82*, 269–275.
- Sholomskas, D.E., Syracuse-Siewert, G., Rounsaville, B.J., Ball, S.A., Nuro, K.F., & Carroll, K.M. (2005). We don't train in vain: A dissemination trial of three strategies of training clinicians in Cognitive–Behavioural Therapy. *Journal of Consulting and Clinical Psychology, 73*(1), 106–115.
- Velasquez, M.M., Hecht, J., Quinn, V.P., Emmons, K.M., DiClemente, C.C., & Dolan-Mullen, P. (2000). Application of motivational interviewing to prenatal smoking cessation: training and implementation issues. *Tobacco Control, 9* (Suppl. 3), 36–40.
-