Evaluation of a workshop to address drugs and alcohol in the workplace

Ann Roche, Victoria Kostadinov and Alice McEntee
National Centre for Education and Training on Addiction, Flinders University, Adelaide, Australia, and
Julaine Allan, Nicholas Meumann and Lara McLaughlin
Lives Lived Well, Gold Coast, Australia

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Abstract

Purpose – Risky alcohol and other drug (AOD) use is ubiquitous in some workplace cultures, and is associated with considerable risks to health, safety and productivity. A workplace drug and alcohol first aid program was developed to support supervisors and managers to recognize and respond appropriately to AOD problems, increase knowledge of AOD and reduce the stigma associated with AOD. The purpose of this paper is to undertake an evaluation to assess the program's efficacy.

Design/methodology/approach – A self-report survey was administered to program participants before (T1), immediately after (T2) and three months following program completion (T3). Changes in alcohol/drug-related knowledge, role adequacy, motivation and personal views were examined using repeated measures ANOVA.

Findings – A total of 109 participants took part in the program, with only 26 completing scores at all three time points. Mean scores increased significantly ($p < 0.05$) between T1 and T2 for knowledge (12.7–16.0), role adequacy (11.8–17.4), motivation (9.7–10.4) and personal views (9.0–9.6). Significant improvements were maintained at T3 for knowledge (15.1) and role adequacy (17.3).

Practical implications – Drug and alcohol first aid programs offer a potentially valuable initiative to improve the knowledge, skills and understanding of managers and supervisors in tackling workplace AOD risks, associated stigma and improving help seeking.

Originality/value – Workplace programs for managers can facilitate organization-wide responses to the reduction of AOD-related problems, increase implementation of appropriate policy and interventions, minimize associated harms and stigma and reduce negative imposts on productivity and profit.

Keywords Workplace health, Wellness interventions, Substance abuse

Paper type Research paper

Introduction

Businesses are increasingly aware of the importance of worker health, safety and well-being for organizational functioning. One area of growing concern is employee alcohol and other drug (AOD) use. AOD use among workers is both highly prevalent and associated with significant harms (Pidd *et al.*, 2011; Frone, 2006; Pulido *et al.*, 2017; Gates *et al.*, 2013; Nicholson and Mayho, 2016). AOD use increases the risk of physical and mental health problems (World Health Organization, 2014; van Amsterdam *et al.*, 2015, Roxburgh *et al.*, 2011) and in the workplace context has been associated with injuries, decreased productivity, absenteeism/presenteeism and antisocial behaviors (Spicer *et al.*, 2003; de Graff *et al.*, 2012; French *et al.*, 2011). These issues may arise as a consequence of acute intoxication and impairment, residual "hangover" effects from previous AOD consumption, and/or chronic health conditions related to long-term AOD use (Gjerde *et al.*, 2010; Rehm *et al.*, 2003).

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Accordingly, AOD-related productivity losses, illness/injury and premature mortality constitute a significant burden for businesses and the economy (Roche *et al.*, 2015; Schou and Moan, 2016; Bouchery *et al.*, 2011). Alcohol-related absenteeism alone has been estimated to cost businesses up to $2bn per year in Australia, $4bn in America, and €9bn in the European Union (Anderson and Baumberg, 2006; Bouchery *et al.*, 2011; Roche *et al.*, 2016).

Recent epidemiological trends underscore the salience of workplace AOD issues. The changing legal status of cannabis (Carliner, 2017) has required re-appraisals of AOD workplace policies to balance safety and productivity with imperatives to recruit/retain staff in difficult economic contexts (Marks, 2018; Bourque, 2017; Otto, 2018). Similarly, unprecedented levels of prescribed opioid addiction (Seth *et al.*, 2018; Skolnick, 2018) have detrimentally impacted North American workplaces (Saraiva *et al.*, 2017; White, 2017; O'Donnell, 2017). In the UK and Australasia, increased crystal methamphetamine use has elevated concerns about worker well-being, productivity and safety, with effective preventive and early intervention workplace strategies sought (Pidd *et al.*, 2016).

The workplace has potential to prevent, ameliorate or exacerbate AOD use (Lancaster *et al.*, 2017). As most people spend a substantial amount of time at their workplace it provides an opportunity for sustained exposure to a healthy (or unhealthy) environment (Blum and Roman, 2002). The culture, policies and physical environment of a workplace can either enhance worker safety, productivity and profitability, or contribute to poor health and trigger higher rates of stress and substance use (Roche *et al.*, 2017; Frone, 2009, 2012; Pidd and Roche, 2008).

Workplace AOD initiatives therefore have a potential to positively influence workplace safety and worker well-being, and offer a substantial return on investment. They can also reach large numbers of individuals, including groups traditionally resistant to health-related messages (e.g. men) (Spicer and Miller, 2016; Ames and Bennett, 2011). However, workplaces are often overlooked and under-utilized as a site to optimize worker well-being and address AOD issues (Frone, 2013).

While generic workplace "health promotion" programs are common (McCleary *et al.*, 2017; Katherine *et al.*, 2017; Rongen *et al.*, 2013), they rarely comprehensively target AOD issues (Webb *et al.*, 2009; Frone, 2013). Other approaches such as drug testing and employee assistance programs (EAPs) are useful in some contexts, but are not designed to holistically address contemporary workplace drug use issues and complex AOD problems are often beyond their scope (Pidd and Roche, 2014; Macdonald *et al.*, 2010; Cashman *et al.*, 2009; Holland, 2016; Richmond *et al.*, 2016).

Evidence supports the efficacy of comprehensive AOD workplace-based programs (Pidd *et al.*, 2018; Cook *et al.*, 2003). These initiatives typically comprise multiple elements such as bespoke formal workplace AOD policies, educational/awareness programs, supervisor/manager training and employee referral pathways. Such holistic strategies generally take a "top-down" approach, which includes systemic, structural changes endorsed and supported by upper management, as opposed to "bottom-up" approaches which typically target the individual "troubled worker" (Gornick and Blair, 2005) at lower levels of the organizational hierarchy.

The first step in implementing systemic initiatives to address employee AOD use involves raising management awareness about AOD issues. Without understanding AOD prevalence in the workforce and associated workplace costs, it is unlikely that the need for (relatively expensive) systemic and holistic strategies will be recognized. Initial awareness-raising activities can, therefore, garner support and engagement among supervisors and managers, which in turn can be mobilized to implement ongoing change.

In-situ workplace programs are the ideal mechanism by which to undertake this preliminary step. Although challenging to evaluate (Berge Zane, 2008), workplace initiatives can achieve positive results (Vidal-Salazar *et al.*, 2012; Schmidt, 2007; Jones *et al.*, 2009) and are relatively simple and inexpensive to implement.

To-date, few management training initiatives have specifically targeted AOD-related issues. Although numbers of workplace interventions have been implemented (e.g. Tinghog, 2014; Tinghog and Tinghog, 2015; Anderson and Larimer, 2002; Richmond *et al.*, 2000; Hermansson *et al.*, 2010) these have generally focused solely on alcohol and have targeted employees directly in an effort to reduce their consumption (with varying levels of success). Increasing awareness of AOD issues among managers and training them to recognize and appropriately respond to AOD use is relatively under explored.

Given their potential to cost-effectively address a significant workplace safety and productivity issue, the development of such training initiatives is a priority. In addition, programs require rigorous evaluation in order to assess their efficacy, identify strengths and weaknesses and improve future iterations.

The aim of this study was therefore to evaluate a drug and alcohol first aid training program designed specifically for workplace managers and supervisors which sought to increase knowledge about AOD, patterns of use and evidence-based methods for responding to employee use, and additionally to reduce the stigma associated with AOD. Drug and alcohol first aid has previously been applied in community settings with positive results (Kostadinov *et al.*, 2018). The program was developed by Lives Lived Well, a large multi-disciplinary not-for-profit provider of AOD services in New South Wales (NSW), Australia.

The evaluation addressed the following research questions:

RQ1. Following the program, did participants demonstrate changes in the following domains post-workshop (T1–T2)?

RQ1a. Knowledge of workplace AOD use.

RQ1b. Knowledge of strategies to address workplace AOD issues.

RQ1c. Improved self-efficacy and motivation regarding responding to AOD use in the workplace.

RQ1d. More empathetic attitudes toward individuals who use AOD.

RQ2. At follow-up (three months post-workshop (T3)), were any improvements in the above areas sustained?

Methods

Program development

Focus groups ($N = 7$) were undertaken to establish the ideal scope and focus of the program. Participants included senior AOD staff, a national work health and safety organization and members of the targeted industries ($N = 66$). An aboriginal community consultation was undertaken to ensure content was appropriate from an Aboriginal and Torres Strait Islander (First Nations) perspective.

A need for evidence-based information for managers, supervisors and human resources personnel with a particular focus on workplace safety was identified. A 3 h training program was designed that built on the successful information and skills workshop format used in the Mental Health First Aid program, which trains participants in how to provide support for people with mental health problems (Kitchener and Jorm, 2002), and has been demonstrated to improve mental health literacy in workplace settings (Kitchener and Jorm, 2006).

Pilot workshops

Three preliminary pilot workshops were conducted in 2015. The pilot workshops were attended by 15 people from KPMG and 12 senior managers from community services and health agencies. Program content was refined according to participant feedback, namely,

reducing the length from 6 to 3 h, providing brief and accessible pre-reading regarding drugs and their effects prior to the workshop, targeting the materials more closely to the workplace audience and making two short films demonstrating how to respond to staff in workplace scenarios.

Final workshop content included information regarding risks of AOD use in the workplace; AOD organizational policy development and implementation; ways to identify employees using AOD; communicating with employees who may be using AOD; and workplace strategies to address AOD use and associated issues.

The workshops utilized active learning and adult learning principles (Michael, 2006, Prince, 2004) and included didactic information (e.g. statistics regarding AOD use and workplace risk), group discussions, small group activities (e.g. analyzing AOD policies and suggesting changes), videos and practice of demonstrated skills (e.g. role-playing approaching staff members about their AOD use). Content was contextualized to participants' situations using their existing workplace policies and/or workplaces as case studies for the practical development of workplace policies and practices.

Implementation

Workshops were conducted by AOD-trained Lives Lived Well staff. To ensure program quality and fidelity, facilitators were required to hold relevant tertiary qualifications, training qualifications and/or experience and five or more years' experience in the AOD field. All underwent training on program content and workshop delivery. Workshops were promoted via existing networks of stakeholders and businesses; and to the human resources or work health and safety departments of local government and telecommunications, transport and building companies. Industries targeted were identified as high risk for workplace accidents and/or high rates of AOD use. Participants were required to be in managerial or supervisor roles with responsibility for implementation of workplace policy and staff performance.

Evaluation

Seven workshops were conducted between October 2015 and June 2016 with supervisors and managers from local government areas, universities, a NSW State Government Department and a large cleaning and hospitality contractor. All participants who attended ($N = 109$) were invited to take part in the evaluation via e-mail.

Data collection

A purpose-designed self-report survey comprising a range of established scales assessed participants' knowledge regarding alcohol and drug use in the workplace. It was administered at three time points: before the workshop (T1), immediately after the workshop (T2) and three months after the workshop (T3). T1 and T3 surveys were completed online. The T2 survey was completed with pen-and-paper onsite at the conclusion of the workshop. Participation was anonymous. Participants were requested to create a unique personalized de-identified code to enable responses to be matched over time.

Measures

Constructs of interest were knowledge, role adequacy, motivation and personal views. Knowledge (the accuracy of participants' knowledge of AOD, their effects and appropriate workplace responses) was measured with 18 multiple-response questions related to workshop content. Role adequacy (the extent to which participants perceived themselves capable of responding to individuals who used AOD), motivation (the extent to which participants were motivated to respond to individuals who used AOD) and personal views (the extent to which participants held negative/stereotypical views of individuals

who used AOD) were assessed using the role adequacy, individual motivation and reward and personal views subscales of the work practice questionnaire (WPQ), respectively. The WPQ is a valid and reliable tool for assessing alcohol- and drug-related training developed by the National Centre for Education and Training on Addiction (Addy *et al.*, 2004).

Demographic characteristics were collected at T1 and process and impact evaluation items were included at T3. The former included age, gender, Indigenous status, work role and level of education attained. Participants were asked to indicate perceptions of the program (e.g. the extent to which they found the training to be appropriate, relevant and useful) and changes that had occurred as a result of the training (e.g. increased confidence/skills; improved AOD responses in the workplace).

The survey contained a total of 59 items and took approximately 10–15 min to complete.

Ethics

Ethics approval was obtained from the Flinders University Social and Behavioural Research Ethics Committee.

Analysis

Data were exported from SurveyMonkey into SPSS version 22. Data cleaning processes removed cases with incomplete scale responses, or where an ID code was not provided. Frequency analyses explored demographic characteristics. In order to examine program efficacy, one-way repeated measures ANOVA examined differences across the three time points and Pairwise comparisons using the Bonferroni adjustment assessed whether significant differences existed between T1, T2 and/or T3. Using only paired data reduced the available sample size due to the number of unmatched cases. To examine program impact and acceptability, frequency analyses calculated the proportion of participants who agreed/disagreed with a number of statements regarding perceived training outcomes and relevance and the extent to which workshop content had been applied.

Results

Sample characteristics

A total of 109 participants attended the workshops. The majority completed the T1 (99 percent, $n = 108$) and T2 (97 percent, $n = 106$) surveys. Approximately half (52 percent, $n = 57$) completed the T3 survey, representing a 46 percent T1–T3 attrition. After data cleaning, a total of 104 cases remained in the T1 sample, 98 in the T2 sample and 56 in the T3 sample. Of these, 26 cases had complete scores for knowledge at all three time points, and 27 had complete scores for role adequacy, motivation and personal views.

The sample comprised approximately equal numbers of males (49 percent) and females (51 percent) with a mean age of 46 years (SD: 10.4). The majority were non-indigenous (96 percent) and possessed tertiary qualifications (80 percent). Participants came from a wide variety of organizational roles; the largest proportion (38 percent) held a management position (including managers, coordinators, supervisors, team leaders and overseers), 17 percent worked in human resources/health and safety roles and 10 percent were public servants. Other roles included administration, engineering, laborers and educators/trainers.

Program efficacy

Knowledge, role adequacy, motivation and personal views showed significant improvements over time (Table I). Pairwise comparisons indicated that significant differences existed between both T1–T2 and T1–T3 for knowledge (T1: 12.7, T2: 16.0, T3: 15.1) $F(2, 24) = 12.76$, $p < 0.01$ and role adequacy (T1: 11.8, T2: 17.4, T3: 17.3)

$F(2, 25) = 52.10$, $p < 0.01$. Significant differences were found between T1 and T2 only for motivation (T1: 9.7, T2: 10.4, T3: 9.9) $F(2, 25) = 4.06$, $p = 0.03$ and personal views (T1: 9.0, T2: 9.6, T3: 9.9) $F(2, 25) = 4.31$, $p = 0.02$.

Perceptions of program impact

All participants reported that the program enabled them to respond to AOD issues with greater confidence, and that it effectively illustrated the links between the theory of responding to AOD issues and the practical aspects of responding.

Almost all (98 percent) reported that they had gained skills or knowledge from the workshop that enabled them to work more effectively with AOD issues and improved their responses to AOD issues, and that the program had addressed practical constraints of responding to AOD issues (92 percent).

Approximately four out of five participants reported that the information/materials provided in the program improved the quality of their responses to AOD issues in the workplace (83 percent) (Table II).

Most reported the training to be relevant (94 percent), appropriate (96 percent) and consistent with their job requirements (91 percent). Approximately three quarters (77 percent) also reported that the program had encouraged them to pursue further learning "on-the-job." At three months post training (T3) data collection, 71 percent had reported that they applied some of their learnings from the program in their workplace. A small proportion (17 percent) reported that the program was too removed from their workplace experiences to be useful.

A majority of participants reported that they had applied the knowledge/skills obtained from the program in their workplace (Table III). Most participants reported that the program resulted in a better understanding of how AOD affects people at work (68 percent), and that they were more aware of signs of AOD use in the workplace (70 percent). However, approximately half (56 percent) reported that they had not yet had a chance to apply the skills they learnt in the workshop in the workplace setting. Very few (4 percent) reported changing their own AOD behavior in the workplace, although 16 percent reported talking to people about their AOD use in their workplace as a result of the program.

Discussion

This study evaluated a drug and alcohol first aid training program for managers, which was designed to promote accurate information regarding AOD and patterns of use, facilitate appropriate responses to employee use and reduce stigma associated with AOD. Results indicate that a brief program delivered *in situ* in an interactive workshop format has appeal and relevance to workplace supervisors and managers, and is an effective strategy to

Table I.
Changes in workshop participants' AOD knowledge, role adequacy, motivation and personal views at T1, T2 and T3

Construct	Time period	Mean	SD	*N*	Wilks' λ	*F*	DF	*p*	η^2
Knowledge	Time 1 (pre-workshop)	12.7	3.6	26	0.48	12.76	2, 24	0.00	0.52
	Time 2 (post-workshop)	16.0	2.0						
	Time 3 (3-month follow-up)	15.1	2.3						
Role adequacy	Time 1 (pre-workshop)	11.8	3.4	27	0.19	52.10	2, 25	0.00	0.81
	Time 2 (post-workshop)	17.4	3.0						
	Time 3 (3-month follow-up)	17.3	3.3						
Motivation	Time 1 (pre-workshop)	9.7	1.8	27	0.75	4.06	2, 25	0.03	0.25
	Time 2 (post-workshop)	10.4	1.6						
	Time 3 (3-month follow-up)	9.9	2.0						
Personal views	Time 1 (pre-workshop)	9.0	1.8	27	0.74	4.31	2, 25	0.02	0.26
	Time 2 (post-workshop)	9.6	1.5						
	Time 3 (3-month follow-up)	9.9	1.6						

Item	*N*	Disagree/tend to disagree (%)	Agree/tend to agree (%)
Perceived training outcomes			
This training program has enabled me to respond to drug and alcohol-related issues with greater confidence	49	0.0	100.0
I gained skills or knowledge from this training program that enabled me to work more effectively with drug and alcohol-related issues	49	2.0	98.0
This training program effectively illustrated links between the theory of responding to drug and alcohol-related issues and the practical aspects of responding	49	0.0	100.0
The information/materials provided in the training program improved the quality of drug and alcohol-related responses in my workplace	48	16.7	83.4
All in all, this training program improved my responses to drug and alcohol-related issues in my workplace	49	2.0	98.0
This training program addressed practical constraints of responding to drug and alcohol-related issues	49	8.2	91.8
Perceived relevance of training			
This training program effectively incorporated relevant workplace issues	47	6.4	93.6
The content of this training program was appropriate for my current work needs	48	4.2	95.8
This training program encouraged me to pursue further learning "on-the-job"	48	22.9	77.1
This training program was consistent with my job requirements	48	8.4	91.6
I have used some of the things I learnt at this training program in my work	48	29.2	70.9
This training program was too removed from my experiences at my workplace to be useful	48	83.4	16.7

Table II. Workshop participants' perceptions of training outcomes and relevancy at T3

Because of the things I learnt during the drug and alcohol first aid workshop […]	*N*	%
I have talked to people about their drug and alcohol use in my workplace	9	15.8
I have a better understanding of how drugs and alcohol affect people whilst at work	39	68.4
I am more aware of the signs of alcohol and drug use in the workplace	40	70.2
I have changed my own drug and alcohol behavior in the workplace	2	3.5
Although I learnt a number of things during the drug and alcohol first aid workshop, I have not had the opportunity to apply these in the workplace setting	32	56.1
I did not learn anything during the drug and alcohol first aid workshop	0	0.0
I have forgotten what I learnt during the drug and alcohol first aid workshop	0	0.0

Table III. Participants' application of workshop content at T3

improve understanding of the roles that managers and supervisors can play in identifying and addressing AOD-related harms.

Specifically, this tailored program significantly increased participants' knowledge, role adequacy, personal views and motivation, with improvements in both knowledge and role adequacy maintained over time. Observed effect sizes for these changes were large, despite the small sample size and associated limitations in statistical power. These results suggest that should future evaluations of drug and alcohol first aid obtain a larger sample, effects are likely to be still more noteworthy.

The lack of sustained change in personal views and motivation was not unexpected, as personal opinions and attitudes are known to be difficult to change, particularly with one-off

workshops (Skinner *et al.*, 2009). More intensive strategies may be required to achieve long-term improvements in these factors. However, personal views scores were in fact slightly higher at T3 (9.9) than T2 (9.6), and this improvement likely would have attained statistical significance with a larger sample. This indicates that in some cases attitudes may be able to be changed with appropriate program content; a conclusion borne out in the literature (Livingston *et al.*, 2012). Further research exploring the mechanisms underlying AOD-related attitudinal change in the workplace context – and effective methods for achieving it – is needed.

The positive results achieved in the current evaluation are also noteworthy given the composition of the sample. While participating organizations requested that the program be delivered in their workplace, individual participants did not volunteer to attend; rather, they were nominated to attend by the person or department organizing the workshop, or by senior management. Participants were also employed in a variety of work roles and fields. As such, it is likely that levels of motivation and interest in AOD-related issues may have been relatively low prior to workshop attendance. Despite this, the program was successful in achieving its aims, and participants reported high levels of satisfaction with their experience. Given that attendance at workplace training programs is often mandatory, the ability of programs to engage participants with low levels of motivation is essential for their longevity and ultimate success. Current results indicate that drug and alcohol first aid is likely to be effective with a wide range of participants with varying levels of motivation (although replication with a larger sample size is required to confirm these findings).

The current evaluation adds to a growing body of literature indicating that initiatives implemented appropriately within workplaces can be highly effective at addressing employee AOD use (Pidd *et al.*, 2018; Blume *et al.*, 2010). Workplace strategies and policies can help overcome many typical barriers to accessing AOD treatment (Treloar *et al.*, 2004), and are an ideal strategy to prevent less problematic substance use from escalating to more serious patterns of use.

Despite this, programs that specifically address AOD issues and include evidence-based strategies to prevent/reduce use in the workplace are relatively rare (Webb *et al.*, 2009, Frone, 2013). Many organizations rely on uni-dimensional strategies such as EAPs or drug testing that have a limited evidence-base when used in isolation (Holland, 2016; Richmond *et al.*, 2016). Drug and alcohol first aid programs, being neither time nor resource intensive and taking a more comprehensive whole-of-workplace approach, offer an important potential strategy to fill this gap.

Implications for policy and practice

Drug and alcohol first aid programs appear to be a valuable professional development strategy and may assist supervisors and managers to prevent, identify and manage employee substance use. Given the high numbers of employees who report AOD use, and the concomitant productivity and fiscal imposts on businesses, there is considerable scope for such programs to play a role in reducing AOD-related harms for individuals, businesses, and society. As such, drug and alcohol first aid programs could result in considerable financial and health-related benefits for businesses.

Results of the current evaluation reinforce several key messages for workplaces seeking to minimize AOD-related harms among their employees. These include the importance of targeting managers and supervisors and delivering a tailored program that draws on the real-world context of a given workplace from a policy and organizational perspective, in contrast to targeting individual workers at lower levels. Although engaging all staff is important when addressing AOD use in the workplace, initiatives are unlikely to be successful unless supported by policy and culture change at the highest levels. Thus, in addition to individual-level strategies which seek to convince employees to change their behavior, systemic "top-down" approaches are required which act in concert with

"bottom-up" initiatives to facilitate and sustain healthy behaviors. The present results also support previous research which has found that workplace initiatives addressing AOD issues require comprehensive and evidence-based approaches that target multiple levels of the organization (Montano *et al.*, 2014), and which take into consideration work-related factors and workplace conditions.

Further research into the applicability of drug and alcohol first aid in different workplace settings and with different occupational groups is warranted. Given that more than half of participants in the present study reported that they did not have a chance to apply the skills they learnt in the workshop, a longer follow-up period is recommended for future studies to better capture relevant outcomes. Should the present promising results be replicated, wide-spread implementation of the program – particularly in industries with high rates of problematic AOD use – is indicated. Consideration could also be given to expanding the program to address potential precursors of AOD use such as work stress (Roche *et al.*, 2017, Frone, 2016) and the inclusion of stress management techniques such as stress inoculation training (Czabala *et al.*, 2011).

Limitations

This study has several limitations. Despite attempts to track individual responses across all three time points, many participants did not provide a unique identifying code to enable this to occur. In addition, there was a relatively large attrition rate between T1 and T3 (potentially due to participants lacking motivation to complete a follow-up survey for a mandatory workshop). Thus, the sample included in the final analyses was small and results should consequently be interpreted with caution. The self-report measures utilized in the evaluation instrument may have been subject to bias (although participant anonymity was assured). Logistical constraints also prevented the inclusion of a control group; future research replicating the current results with a more rigorous study design is therefore warranted. Finally, sub-group analyses examining differences in outcomes by age, gender and staff discipline were not feasible due to the relatively small and homogenous sample. Future research with a larger and more diverse sample should examine whether the workshop is equally effective for all participant sub-groups.

Conclusion

Workplace AOD issues have greater salience today than ever before. There is unparalleled and largely under-utilized scope to offer support and appropriate interventions for AOD-related problems in the workplace. This study indicates that a brief drug and alcohol first aid program implemented in a workplace setting can improve managers' and supervisors' AOD-related knowledge and role adequacy in the medium-term. Furthermore, such programs are relatively inexpensive and logistically simple to implement. As such, they represent a potentially invaluable strategy for reducing AOD-related harm in the workplace. Given the severe personal and financial costs associated with worker AOD use, consideration of larger-scale implementation and further evaluation of the drug and alcohol first aid program is warranted.

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Corresponding author
Ann Roche can be contacted at: ann.roche@flinders.edu.au