Emerald Drugs and Alcohol Today

Development and process evaluation of an educational intervention to support primary care of problem alcohol among drug users

Journal:	*Drugs and Alcohol Today*
Manuscript ID:	Draft
Manuscript Type:	Research Paper
Keywords:	general practice, family medicine, alcohol, methadone, study & teaching, brief intervention

Development and process evaluation of an educational intervention to support primary care of problem alcohol among drug users

Abstract

Purpose: This paper describes the development and process evaluation of an educational intervention, designed to help general practitioners (GPs) identify and manage problem alcohol use among problem drug users.

Methodology: The educational session was developed as part of a complex intervention which was informed by the Medical Research Council framework for complex interventions. A Cochrane review and a modified Delphi-facilitated consensus process formed the theoretical phase of the development. The modelling phase involved qualitative interviews with professionals and patients. The training's learning outcomes included alcohol screening and delivery of brief psychosocial interventions and this was facilitated by demonstration of clinical guidelines, presentation, video, group discussion and/or role play.

Findings: Participants (N=17) from three general practices and local medical school participated in four workshops. They perceived the training as most helpful in improving their ability to perform alcohol screening. Most useful components of the session were the presentation, handout and group discussion with participants appreciating the opportunity to share their ideas with peers.

Value: Training primary healthcare professionals in alcohol screening and brief psychosocial interventions among problem drug users appears feasible. Along with the educational workshops, the implementation strategies should utilise multi-level interventions to support these activities among GPs.

Key words: general practice / primary care, alcohol, methadone, screening, brief intervention, Study & teaching

Development and process evaluation of an educational intervention to support primary care of problem alcohol among drug users

Introduction

This paper describes the development and process evaluations of an educational intervention to help general practitioners (GPs) identify and manage problem alcohol use among problem drug users. The educational intervention is part of a complex intervention to promote screening, brief intervention and referral to treatment by GPs. It was developed within the 'PINTA' programme aiming to establish feasibility of Psychosocial INTerventions for Alcohol use among problem drug users in primary care. As a pilot study, the PINTA project aims to establish feasibility and acceptability of the intervention to patients and professionals by estimating rates of recruitment, consent and follow up for a definitive randomised controlled evaluation (RCT). The future trial's key outcome measure will be that GPs in the eight intervention practices which receive the complex intervention will have higher proportions of patients who are i) screened, ii) treated and/or iii) referred to a specialist treatment and who are iv) negative for problem alcohol use, than those in the eight control practices which do not receive the complex intervention.

Knowledge of addiction medicine among medical students, residents and doctors is low (O'Brien and Cullen, 2011, Betterton et al., 2004), but can be improved with 'interactive didactics' (Brown et al., 2013). A systematic review established the effectiveness of interactive workshops for psychosocial addiction treatments and recommended this method for future studies (Walters et al., 2005). Randomised trials tested various methods for helping clinicians learn psychosocial interventions, including motivational interviewing and brief alcohol interventions (Miller et al., 2004, Chossis et al., 2007). Subsequent studies continue to show feasibility of training clinicians in interventions that should help their patients "make

healthy choices easier" (Baer et al., 2004, Smith et al., 2007, Brennan et al., 2013). None of these studies, however, focussed specifically on alcohol among illicit drug users.

In summary, educational interventions that promote screening / treatment for problem alcohol use have been evaluated and demonstrated as promising tools to help practitioners adopt these new practices. However, disengagement of health care professionals from addiction care has been also attributed to a lack of confidence, motivation or negative attitudes towards alcohol or drug users (Babor and Higgins-Biddle, 2001, Klimas et al., 2012b). Several studies effectively approached these deficits by utilising innovative approaches to resident skill-building. Motivational enhancement therapy was used to increase resident physicians' engagement in addiction education (Hettema et al., 2009). Proficiency checklists provided instant feedback boosting students' confidence during educational sessions on brief interventions (Cole et al., 2012). Vocational and training schemes with patients who are homeless and patients with problem drug use helped to shift trainees' attitudes towards working with these populations (Betterton et al., 2004, Puskar et al., 2012). This effect seems bidirectional, as another study showed that experiences and attitudes of residents and students *influence* voluntary service with homeless populations (O'Toole et al., 1999).

Incorporating recommendations of the cited studies, our educational intervention was focused on improving participants' knowledge, skills and attitudes towards addressing alcohol among problem drug users. The aims of this study were:

i. To develop an *educational intervention* that enables GPs to deliver brief psychosocial interventions for problem alcohol use among problem drug users,
ii. To determine its feasibility, acceptability and usefulness in practice.

Methodology

Setting/ participants

In Ireland, addiction treatment is currently provided by specialist addiction treatment services and by primary care. Methadone substitution is the most common addiction treatment provided by GPs in primary care; currently 277 GPs prescribe methadone to 3199 patients nationwide (Farrell and Barry, 2010). To prescribe methadone, GPs are subject to clinical audit and must complete special training, with GPs providing methadone treatment for 15 or more patients subject to more regular audit and advanced training. GPs who prescribe methadone for less than 15 patients are referred to as 'level one' GPs, and those prescribing for 15 or more as 'level two' GPs (Ryder et al., 2009).

The study was conducted in two cities in Ireland with high social deprivation areas, Dublin and Limerick. We invited five GP Clinical Teachers, University of Limerick (UL), and three GP Principals at three teaching / research practices, affiliated with UL Graduate Entry Medical School (UL-GEMS), or University College Dublin, to participate.

Fifteen GPs, one practice nurse and one GP trainee took part in the sessions. There were five Level 1 methadone prescribers in our sample and two GPs stated that there were both Level 1 and Level 2 prescribers in their practices. The mean number of GPs in their practices was five (3-9). Ten participants described their practice as providing care to mostly GMS patients (eligibility for Ireland' General Medical Services, which provides free primary care determined on the basis of inability to pay) and two worked in a mixed practice. Seven participants had other healthcare professionals involved in the care of problem drug users in their practice, in two cases specified as a nurse/ nurse psychotherapist. They were from the practices at which the GP clinical teachers or GP principals worked at.

Description of the educational session as part of the complex PINTA intervention

Development of the complex intervention for the PINTA feasibility study was guided by the Medical Research Council (MRC) framework for developing complex interventions (Campbell et al., 2000), which advocates core phases to the development of health services interventions. The preclinical and theoretical stages of the intervention development established that opioid substitution treatment in primary care should also include interventions that address problem use of alcohol and other illicit drugs. In particular, a national cross sectional study reported 35% of patients attending GPs for methadone treatment also had problem alcohol use (Ryder et al., 2009) while findings from a subsequent qualitative study highlighted the need for an educational intervention to address this problem in primary care (Field et al., 2011).

The subsequent, modelling phase brought about formulation of clinical guidelines, informed by the findings of qualitative interviews, expert opinion through a Delphi-facilitated expert consensus process and a Cochrane Systematic Review (Klimas et al., 2012a), which are being evaluated in the PINTA feasibility study and the protocol was published elsewhere (Klimas et al., 2013). Data from this feasibility evaluation will inform design of the final exploratory stage, where effectiveness of the intervention in primary care will be tested by conducting a cluster randomised controlled trial.

The aim of the educational session, described in the current study, was to enable GPs / practice nurses deliver alcohol screening / brief interventions. The key learning outcomes of the educational session were to teach GPs how to screen for and deliver a brief psychosocial intervention around problem alcohol use in problem drug users. A full list of the learning outcomes can be found in Figure 1.

Content of the session was drawn from previous work of the research team, as well as from two recent initiatives conducted among general patient population in UK (Kaner et al., 2013) and US (Muench et al., 2012).

<insert Figure 1 here>

The four sessions were delivered by one or two of the co-authors of this paper (WC, JK, KL or LM) in a group setting, taking approximately 45 minutes, with an average of four participants in each. Three sessions were practice-based and one was delivered at the medical school. Delivery methods utilised during the sessions included a formal presentation, a video demonstration of how to screen using the AUDIT and deliver a brief intervention, a role play exercise on how to screen using the AUDIT and deliver a brief intervention, a small group discussion and an evaluation / anonymised feedback. A manual for the trainers was developed before delivery of the session in collaboration with a member of the research team (RA) who previously led the national alcohol aware practice service initiative (Anderson et al., 2006). The sessions were accredited for Continued Medical Education (CME) purposes by the Irish College of General Practitioners.

Session evaluation

Following each session, participants were asked to complete a structured evaluation, which elicited quantitative (practice / practitioner characteristics, self-reported achievement of learning outcomes, usefulness of the session) and qualitative data (acceptability of the session, learning needs and suggested improvements).

Findings

Evaluation of the educational session

Perceived knowledge / ability of conducting alcohol screening and brief intervention was measured using a five point likert-type scale (4= strongly agree – 0= strongly disagree) where participants were asked to rate their ability/ understanding of 10 learning outcomes of the session (e.g. *'As a result of the session, I am better able to outline the importance of psychosocial interventions in primary care'*). The mean knowledge/ ability score was 30.9 (SD= 6.09), the highest rated learning outcome was "Perform screening for problem alcohol use using AUDIT-C / AUDIT instruments" (3.65, SD= 0.49) the lowest was "Assess the person's readiness to change" (3.17, SD= 0.72).

Usefulness of the session was evaluated using a five point likert-type scale (4= strongly agree – 0= strongly disagree) where participants were asked to rate the usefulness of five delivery methods utilised during the session (e.g. '*The following were useful in helping me achieve these outcomes - presentation'*). The group mean for the usefulness score was 16.4 (SD= 2.35), the most useful delivery method was small-group discussion (3.53, SD= 0.51), the least useful delivery method was simulation/ role-play (2.82, SD= 0.73; NB. Role play was not conducted in two sessions). For a complete list of knowledge and usefulness ratings, see Table 1.

<insert Table 1 here>

Acceptability of the session to participants was assessed with open-ended questions which asked participants to write what was good (bad) about each of the five delivery methods utilised during the session. The characteristic of the presentation which participants most liked was "clarity and conciseness". They had no negative feedback about presentation. The characteristic of the video which participants most liked was that it was "good to see a practical, realistic and visual example" and they also appreciated that it was "well played".

Some suggested that the next role play is done "with a more relaxed introduction to put patient at ease rather than going straight into questions". The characteristic of the role play which participants most liked was that it represented a "realistic and quick consultation". Three suggested "use of a different scenario to the video scenario". The participants felt the small-group discussion was very useful because "people had good suggestions", "good conversation and feedback". One commented about the length of such discussion in a real training situation with GPs.

The characteristic of the guideline demonstration which participants most liked was that it was "always handy to check you are doing right thing". Two needed the demonstration to be more specific and more time for this to be allocated.

Finally, trainees were given an opportunity to comment on their educational needs or provide suggestions for improvement of the session. Table 2 summarizes participants' answers to these questions.

<insert Table 2 here>

Would any other educational interventions or activities help participants?

Only six responded to this question, indicating that "more simulation or role play may be helpful" and each should be given "a case example and feedback from others re suggestions for improvement". Other comments about additional educational activities are listed in Table 2.

Suggestions for improvement of the education session in general

While, four trainees reported that the session "was useful / don't feel any changes are required", one needed "more guidance with guidelines" and one suggested to "repeat this after trial of AUDIT score / brief intervention" (See Table 2).

Discussion

A CME-approved educational workshop to enable GPs screen for or treat problem alcohol use among problem drug users was received favourably. Most useful components of the training were presentation, handout and group discussion with participants appreciating the opportunity to share their ideas with their peers.

Our findings support the literature which highlights the potential of educational workshops, using 'interactive didactics' and videos, as feasible and acceptable means of improving knowledge of addiction medicine among medical doctors and interns (Brown et al., 2013, Walters et al., 2005, Muench et al., 2012). Satisfaction and acceptability of our education by medical professionals was comparable with previous research (Hettema et al., 2009, Lester et al., 2005), attesting to the utility of involving GPs and nurses into the development of educational interventions. We've ensured that their views are included via qualitative interviews conducted in the pre-clinical and modelling stages of intervention development (Field et al., 2011). In this study, some aspects of the educational session were more helpful than has been reported in other literature, *i.e.* sharing ideas with peers *vs.* gaining new insights (Lester et al., 2005). It could be speculated that this was due to the specific focus of our session or a limited availability of addiction education workshops for GPs in Ireland (O'Brien and Cullen, 2011). Only a handful of GPs in the regions under study have been exposed to training in alcohol awareness (Anderson et al., 2006) and for many GPs in Ireland, talking about their ideas in a group format may be of great value in itself. The 'MRC framework for health service interventions was successfully applied to develop the complex intervention, as in previous studies conducted in primary care (Paul et al., 2007, Lester et al.,

2005, Cullen et al., 2006). The development procedure also showed feasibility of engaging medical students in the design and evaluation of educational sessions for medical professions, and thus bridging the gap between undergraduate and postgraduate medical education (O'Regan et al.).

The brevity of the training developed in this pilot project is one of its novel and valiant features. The decision to keep the educational session so brief was influenced mainly by the prequel to this study, which used qualitative interviews with 68 primary care professionals and patients, and found, consistently with international literature, that lack of time is a key barrier to implementation of psychosocial interventions for problem alcohol use in primary care (Babor and Higgins-Biddle, 2001, Field et al., 2011). The session aimed for attaining the maximum possible transfer of knowledge, while keeping the time requirements minimal, thus increasing acceptability of the intervention for professionals. That none of the participants complained about the shortness of the session suggests that it was accepted well and has delivered what it set out to do. On the other hand, the response to the role play was somewhat tepid. Why might this be the case? Possibly, it could take people a little while to warm up to role play in a group, and feel comfortable with it. However, this interpretation should be taken with caution because not all participants were exposed to the role play and only six provided feedback about this component.

The current study is limited in several ways. Our sample was atypical in terms of its composition, size and sampling method which all may have biased the generalisability of our findings. They may not be generalizable to the larger population of GPs involved in methadone treatment. The health care professionals participated voluntarily, were not obliged to take part in the training or utilise the new learning in practice. Everybody in the

participating practices was invited to the sessions via a formal letter, but not all clinicians took up the training opportunity and we did not measure practice attendance rates. Therefore, we may have recruited only motivated 'enthusiasts' who felt more confident and competent in addressing alcohol issues with patients. In the absence of a skills assessment before the session, the true impact of the training on participants' knowledge and skills may have remained hidden. Finally, the sessions were led by multiple facilitators which influenced the content and format of sessions to a small degree. Our core focus on application of a validated framework for development of complex interventions (MRC), together with acquisition of both qualitative and quantitative feedback from participants, suggest a compelling potential value of the intervention for evaluation in future feasibility studies and clinical trials.

Conclusion

Training GPs and other primary care professionals in screening, brief intervention and referral to treatment for problem alcohol use among problem drug users is feasible. Along with educational workshops, implementation strategies should utilise multi-level, multi-faceted interventions to support these activities among GPs. Further research involving a complex intervention which incorporates these elements is a priority; if feasible, such research could have implications for the role of general practice in the management of alcohol use disorders among problem drug users and other vulnerable groups.

Acknowledgements

The authors wish to thank study participants and colleagues from UL GEMS, Jennifer Fitzgerald, Geoff McCombe and Laoise Hogan and PINTA project steering group. KL used this research for partial fulfilment of his Year 3 Special Study Module at the Graduate Entry Medical School, University of Limerick.

Source of funding

Health Research Board of Ireland funded the study (Grant ID: HRA-HSR-2012-14).

Conflicts of interest

None reported.

References

ANDERSON, R. J., COLLINS, C., DALTON, Y., DORAN, G. & BOLAND, M. 2006. *Alcohol aware practice service initiative. Final report - August 2006.,* Dublin, Irish College of General Practitioners.

BABOR, T. F. & HIGGINS-BIDDLE, J. 2001. *Brief Intervention For Hazardous and Harmful Drinking. A Manual for Use in Primary Care,* Geneva, WHO.

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.

BETTERTON, J., HAYWOOD, J., HEAVERSEDGE, J. & GERADA, C. 2004. Developing new roles for general practitioners: senior house officer posts caring for patients who are homeless or have substance misuse problems. *Education for Primary Care,* 15**,** 58-63.

BRENNAN, C., NEWTON, M., WOOD, F., SCHUG, S. A., ALLSOP, S. & BROWNE, A. L. 2013. Training general practitioners in remote Western Australia in a method of screening and brief intervention for harmful alcohol use: A pilot study. *Australian Journal of Rural Health,* 21**,** 72-79.

BROWN, A. T., KOLADE, V. O., STATON, L. J. & PATEL, N. K. 2013. Knowledge of addiction medicine among internal medicine residents and medical students. *Tenn Med,* 106**,** 31-3.

CAMPBELL, M., FITZPATRICK, R., HAINES, A., KINMONTH, A. L., SANDERCOCK, P., SPIEGELHALTER, D. & TYRER, P. 2000. Framework for design and evaluation of complex interventions to improve health. *BMJ,* 321**,** 694-6.

CHOSSIS, I., LANE, C., GACHE, P., MICHAUD, P. A., PECOUD, A., ROLLNICK, S. & DAEPPEN, J. B. 2007. Effect of training on primary care residents' performance in brief alcohol intervention: a randomized controlled trial. *J Gen Intern Med,* 22**,** 1144-9.

COLE, B., CLARK, D. C., SEALE, J. P., SHELLENBERGER, S., LYME, A., JOHNSON, J. A. & CHHABRIA, A. 2012. Reinventing the Reel: An Innovative Approach to Resident Skill-Building in Motivational Interviewing for Brief Intervention. *Substance Abuse,* 33**,** 278-281.

CULLEN, W., STANLEY, J., LANGTON, D., KELLY, Y., STAINES, A. & BURY, G. 2006. Hepatitis C infection among injecting drug users in general practice: a cluster randomised controlled trial of clinical guidelines' implementation. *Br J Gen Pract,* 56**,** 848-56.

FARRELL, M. & BARRY, J. 2010. *The Introduction of the Opioid Treatment Protocol,* Dublin, Health Service Executive.

FIELD, C. A., KLIMAS, J., CULLEN, W., BARRY, J., BURY, G., KEENAN, E., LYONS, S. & SMYTH, B. P. 2011. Exploring healthcare professionals experience and attitudes towards screening for and treatment of problem alcohol use among drug users attending primary care. *ADEGS/AUDGPI Scientific Meeting, 20-21.1.2011.* Dublin, Ireland.

HETTEMA, J. E., SORENSEN, J. L., UY, M. & JAIN, S. 2009. Motivational Enhancement Therapy to Increase Resident Physician Engagement in Substance Abuse Education. *Substance Abuse,* 30**,** 244-247.

KANER, E., BLAND, M., CASSIDY, P., COULTON, S., DALE, V., DELUCA, P., GILVARRY, E., GODFREY, C., HEATHER, N., MYLES, J., NEWBURY-BIRCH, D., OYEFESO, A., PARROTT, S., PERRYMAN, K., PHILLIPS, T., SHEPHERD, J. & DRUMMOND, C. 2013. Effectiveness of screening and brief alcohol intervention in primary care (SIPS trial): pragmatic cluster randomised controlled trial. *BMJ,* 346.

KLIMAS, J., FIELD, C.-A., CULLEN, W., O'GORMAN CLODAGH, S. M., GLYNN LIAM, G., KEENAN, E., SAUNDERS, J., BURY, G. & DUNNE, C. 2012a. Psychosocial interventions to reduce alcohol consumption in concurrent problem alcohol and illicit drug users. *Cochrane Database of Systematic Reviews* [Online]. Available: http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD009269.pub2/abstract.

KLIMAS, J., FIELD, C.-A., CULLEN, W., OGORMAN, C., GLYNN, L., KEENAN, E., SAUNDERS, J., BURY, G. & DUNNE, C. 2013. Psychosocial interventions to reduce alcohol consumption in concurrent problem alcohol and illicit drug users: Cochrane Reviewa. *Systematic Reviews,* 2**,** (12 January 2013).

KLIMAS, J., FIELD, C. A., BARRY, J., BURY, G., KEENAN, E., LYONS, S., SMYTH, B. & CULLEN, W. 2012b. Commentary on 'The research translation problem: Alcohol screening and brief intervention in primary care – Real world evidence supports theory'. *Drugs: Education, Prevention, and Policy,* 19**,** 88-90.

LESTER, H., TAIT, L., KHERA, A., BIRCHWOOD, M., FREEMANTLE, N. & PATTERSON, P. 2005. The development and implementation of an educational intervention on first episode psychosis for primary care. *Med Educ,* 39**,** 1006-14.

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. *J Consult Clin Psychol,* 72**,** 1050-62.

MUENCH, J., JARVIS, K., BOVERMAN, J., HARDMAN, J., HAYES, M. & WINKLE, J. 2012. Tilling the Soil While Sowing the Seeds: Combining Resident Education with Medical Home Transformation. *Substance Abuse,* 33**,** 282-285.

O'REGAN, A., CULHANE, A., DUNNE, C., GRIFFIN, M., MCGRATH, D., MEAGHER, D., O'DWYER, P. & CULLEN, W. Integrating postgraduate and undergraduate general practice education: qualitative study. *Education for Primary Care,* 24**,** 158-164.

O'TOOLE, T. P., HANUSA, B. H., GIBBON, J. L. & BOYLES, S. H. 1999. Experiences and attitudes of residents and students influence voluntary service with homeless populations. *Journal of General Internal Medicine,* 14**,** 211-216.

O'BRIEN, S. & CULLEN, W. 2011. Undergraduate medical education in substance use in Ireland: a review of the literature and discussion paper. *Irish Journal of Medical Science,* 180**,** 787-792.

PAUL, G., SMITH, S. M., WHITFORD, D., O'KELLY, F. & O'DOWD, T. 2007. Development of a complex intervention to test the effectiveness of peer support in type 2 diabetes. *BMC Health Services Research,* 7**,** 136.

PUSKAR, K., GOTHAM, H. J., TERHORST, L., HAGLE, H., MITCHELL, A. M., BRAXTER, B., FIORAVANTI, M., KANE, I., TALCOTT, K. S., WOOMER, G. R. & BURNS, H. K. 2012. Effects of Screening, Brief Intervention, and Referral to Treatment (SBIRT) Education and Training on Nursing Students' Attitudes Toward Working With Patients Who Use Alcohol and Drugs. *Substance Abuse,* 34**,** 122-128.

RYDER, N., CULLEN, W., BARRY, J., BURY, G., KEENAN, E. & SMYTH, B. P. 2009. Prevalence of problem alcohol use among patients attending primary care for methadone treatment. *BMC Fam Pract,* 10**,** 42.

SMITH, T., BOTELHO, R. & MATHERS, N. 2007. Making healthy choices easier: an evaluation of a motivational practice workshop. *Education for Primary Care,* 18**,** 76-83.

WALTERS, S. T., MATSON, S. A., BAER, J. S. & ZIEDONIS, D. M. 2005. Effectiveness of workshop training for psychosocial addiction treatments: a systematic review. *J Subst Abuse Treat,* 29**,** 283-93.

Tables and Figures

Figure 1: Learning outcomes, delivery method / content and initial evaluation of the session

Learning outcomes

- Outline the importance of psychosocial interventions in primary care
- Outline the concept of zones / levels of risks and drinking patterns
- Describe clinical guidelines for managing problem alcohol use among drug users
- Describe why problem alcohol use is an important issue among problem drug users
- Approach the conversation about alcohol with patients
- Perform screening for problem alcohol use using AUDIT-C / AUDIT instruments
- Interpret screening for problem alcohol use using AUDIT-C / AUDIT instruments
- Establish a person's readiness to change
- Outline the 'FRAMES' approach to delivering brief interventions
- Deliver brief interventions using the 'FRAMES' outline

Delivery method

- Formal presentation
- Video demonstration of how to screen using the AUDIT and deliver a brief intervention
- Role play exercises on how to screen using the AUDIT and deliver a brief intervention
- Small group discussion
- Evaluation / anonymised feedback

Evaluation of education session

- How well were learning outcomes achieved
- Qualitative data on strengths / weaknesses
- Anonymous and confidential

Table 1 Self-reported ratings of knowledge or ability of conducting alcohol screening and brief intervention and usefulness of the session

As a result of the session, I am better able to	Strongly agree / agree N (%)	Neither	Strongly disagree / disagree N (%)	Mean score
Outline the importance of psychosocial intervention in primary care	16 (92%)	1 (6%)	0	3.41
Outline the concept of zones / levels in risks and drinking patterns	17 (100%)	0	0	3.53
Describe the clinical guidelines for managing problem alcohol use among drug users	15 (88%)	2 (12%)	0	3.18
Describe why problem alcohol use is an important issue among problem drug users	15 (88%)	2 (12%)	0	3.47
Approach the conversation about alcohol with patients	16 (92%)	1 (6%)	0	3.35
Perform screening for problem alcohol use using AUDIT-C / AUDIT instruments	17 (100%)	0	0	3.65
Interpret screening for problem alcohol use using AUDIT-C / AUDIT instruments	17 (100%)	0	0	3.53
Assess the person's readiness to change	10 (88%)	2 (17%)	0	3.17
Outline the 'FRAMES' approach to delivering brief interventions	10 (88%)	2 (17%)	0	3.25

Deliver brief interventions using the 'FRAMES' outline	10 (88%)	2 (17%)	0	3.25
The following were useful in helping me achieve these outcomes	Strongly agree / agree N (%)	Neither	Strongly disagree / disagree N (%)	Mean score
Presentation	16 (94%)	1 (6%)	0	3.47
Video	15 (88%)	2 (12%)	0	3.41
Simulation / Role play	11 (65%)	6 (35%)	0	2.82*
Q & A	17 (100%)	0	0	3.53
Guideline demonstration	15 (88%)	2 (12%)	0	3.18

* NB. Role play was not conducted in two sessions

Table 2 – Acceptability of the educational session

How did you find each aspect of the session?		
	What was good about it?	**How can it be improved?**
Presentation	clear, concise (6)*; hand-outs (2); relevant to everyday practice (2); varied training modes, delivery (2); good overview (2); space for questions (1); very informative, increased awareness (2);	No comments
Video	good to see practical/ realistic/ visual example (6); demonstrated easiness, feasibility, simplicity of BI (2); relevant, appropriate for GPs (2); very good, well played (4)	update upper limit of low-risk drinking for male (1); do [role play] with a more relaxed introduction to put patient at ease rather than going straight into questions (1); use more difficult patient (1);
Simulation/ role play	better understanding of concept (2); good, realistic, quick consultation (4);	use a different scenario to the video scenario (3); update role-play info to state AUDIT-C done first and then full AUDIT done (1); little additional benefit (1);
Small group discussion	very useful, people had good suggestions (8); good conversation/ feedback (2); very good and beneficial (2); highlighted difficulties/ needs (2);	quantify "units" (1); in a group scenario with GPs, you could get 10-15 mins of discussions (1)

Guidelines demonstration	becoming familiar again (3); good to have hand out, clear flow charts (3); useful summary (3), *e.g.* "very helpful as would not get time to source guidelines myself";	make more obvious/ specific (2); not done/ more time for discussing guidelines (2); use traffic light to illustrate process (1);

Would any other educational interventions / activities help participants?

- each give a case example and feedback from others re suggestions for improvement
- more simulation / role play may be helpful
- not sure/ no (2x)
- an up to date list of local alcohol services & telephone Nos. Already have many of them; [Are they] still current services / tel. numbers? Also number for private alcohol counsellors if any known (or, if not, as a lot to ask for any of above my jobs to sources them really)
- interactive online learning with maybe MCQ [Multi-choice questions]

Suggestions for improvement:

- it was useful / don't feel any changes are required (4x)
- more guidance with guidelines
- repeat this after trial of AUDIT score / brief intervention

*Numbers in brackets indicate how many participants reported about the particular item