A teachable moment for the teachable moment? A prospective study to evaluate delivery of a workshop designed to increase knowledge and skills in relation to Alcohol Brief Interventions (ABIs) amongst final year Nursing and Occupational Therapy undergraduates.

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ABSTRACT

The perceived value of Alcohol Brief Interventions as a tool to address alcohol misuse in Scotland has supported the establishment of a Health Improvement, Efficiency, Access and Treatment, HEAT: H4 Standard to deliver ABIs within certain health care settings. This requires that nursing, medical and allied health professionals are appropriately skilled to deliver these interventions. This study explores the knowledge and attitudes regarding alcohol misuse and related interventions among two cohorts of final year nursing and occupational therapy undergraduate students before, during and following participation in a workshop devoted to ABI delivery. While relatively good knowledge around recommended limits for daily consumption was evident, this did not translate into competence relating to drink unit content. Although there was overwhelming agreement for the role of each profession in ABI delivery, less than half of students in each cohort at the outset of the workshop agreed that they had the appropriate knowledge to advise patients about responsible drinking. In both cohorts, at the three month follow-up stage, this percentage had almost doubled. Newly qualified practitioners perceived a wider role for motivational interviewing, and endorsed interactive delivery of alcohol education throughout all levels of the curriculum.
INTRODUCTION

The burden imposed by the misuse of alcohol in financial, social and personal terms in Scotland is well documented. Governmental responses have been enacted through legislative and policy interventions. One interactive intervention with an expanding evidence base is the alcohol brief intervention (ABI).

An ABI has been defined in various ways, one being “a short, evidence-based, structured conversation about alcohol consumption with a patient/client that seeks in a non-confrontational way to motivate and support the individual to think about and/or plan a change in their drinking behaviour in order to reduce their consumption and/or their risk of harm” (Scottish Government, p. 1, 2011).

Alcohol brief interventions are essentially conversations using specific techniques to encourage behavioural change, and are based on recommendations made in the Scottish Intercollegiate Guidelines Network (SIGN) 74 Guideline (SIGN, 2003). They use motivational interviewing to examine and resolve ambivalence about behaviour change (Rollnick, 1996), and utilise important therapeutic skills (feedback, responsibility, advice, menu of options, empathy, self-sufficiency) as described in the FRAMES model (Miller and Rollnick, 1991). An ABI has been described as a “teachable moment”, a time when individuals are faced with the consequences of their actions and therefore more receptive to the suggestion of behaviour change (Bridgeman et al., 2012).
In response to the development of the Alcohol Framework for Scotland (Scottish Government, 2009), targets for the delivery of ABIs were determined, in the form of Health Improvement, Efficiency, Access and Treatment (HEAT: H4), in three healthcare settings; antenatal, primary care, and Accident and Emergency. This H4 target has been adopted as standard by the National Health Service (NHS) in Scotland (ISD, 2014).

Background

Early evaluation of the ABI programme in Scotland has shown NHS healthcare staff believes delivering ABIs to be a worthwhile activity, and a valid use of NHS resources (Parkes et al., 2011). The efficacy of ABIs has been endorsed (Heather, 2011), but the importance of tailoring approaches to consider setting and drinker type is recognised, given varied results regarding their success (Kaner et al., 2009, McQueen, 2013, Shiles et al., 2013), with acknowledgement of the potential for alcohol identification and brief advice to be delivered beyond primary care and hospital departments (Thom et al., 2014).

In Scotland, ABIs are now being conducted in an increased range of settings, including pharmacy, mental health, alcohol detox, criminal justice, youth work and young people, NHS/non-NHS workplaces, and in conjunction with third sector organisations (NHS Health Scotland website). NHS Health Scotland gives several examples of ABIs, traditionally implemented by medical or nursing staff, now being delivered by a range of allied healthcare professionals, including occupational therapists (McQueen, 2013), podiatrists, and recommends delivery by dentists (McAuley et al., 2011) and community pharmacists (McAuley et al. 2012).
In their evaluation of the ABI programme in Scotland, Beeston et al. (2012) record its achievements but highlight the potential benefit of “further embedding alcohol screening and brief intervention training within the undergraduate and postgraduate curriculum for health and other relevant professionals” (p26). Concerning the last point, Gill et al. (2010) highlighted knowledge gaps among nursing and allied health professional students (NAHP) from across Scottish higher education institutes (HEI). Almost half did not feel they had the knowledge to appropriately advise patients about responsible drinking or alcohol misuse. Occupational therapy students, despite communicating high self-belief in their abilities, demonstrated key knowledge gaps. Gill and O’May (2011) argued that focus upon responsible alcohol consumption and misuse within the curricula must be achieved to ensure the future sustainability of ABIs.

Substance misuse teaching within the undergraduate medical curriculum is now implemented in all medical schools in the UK (International Centre for Drug Policy, 2012). However Patel et al. (2014) reported that 96% of a cohort of medical students (n=100) in clinical placements in the north-west of England had not heard of identification and brief advice for alcohol. Conversely, in Scotland, following introduction of the new curriculum, medical students showed improved confidence in their ability to recognize hazardous and harmful drinkers and knowledge regarding their management (Steed et al., 2012).

No such universal curriculum exists for NAHP students within the UK. A recent survey by Holloway and Webster (2013a) found a need for increased and more focused alcohol
education for pre-registration nursing students of all fields of practice. Despite appeals for
greater emphasis on alcohol in undergraduate and post-graduate occupational therapy training
(McQueen, 2013), a survey sent to all institutions in Scotland delivering occupational therapy
undergraduate teaching reported a fragmented approach to alcohol misuse education (MacLean
et al., 2014).

In the United States, Vadlamudi et al. (2008) evaluated the effect of an educational intervention
on the attitudes, beliefs and confidence levels of pre- and post-registration student nurses
(n=181) regarding screening and brief intervention for alcohol problems. The intervention was
assessed using a 100-item questionnaire and statistically significant positive changes in the
nurses’ attitudes, beliefs and confidence levels regarding alcohol abuse and its treatment were
reported (95% CI, p=0.000). Also in the US, Mitchell et al. (2013) described a screening, brief
interventions and referral to treatment (SBIRT) programme embedded in the undergraduate
nursing curriculum (n=488). More than 90% of students strongly agreed or agreed that the
training was relevant to their nursing careers and would help their patients. A recent Brazilian
study, using a quasi-experimental approach, found that an educational programme in brief
interventions for alcohol problems delivered to undergraduate nursing students (n=160)
facilitated effective acquisition of knowledge and changes in attitudes in working with patients
with alcohol problems (de Barros Junqueira et al., 2015).

Given the significance of ABIs within the NHS in Scotland, and the acknowledged lack of
alcohol education elsewhere within the UK undergraduate healthcare curriculum (Rassool and
Rawaf, 2008), we report the evaluation of a “hands on” interactive workshop. This intervention
built on earlier work carried out by members of the research team (Gill et al., 2010; Gill et al., 2011; Gill and O’May, 2011), and was developed in conjunction with, and delivered by, national alcohol brief intervention trainers to two successive cohorts of final year nursing and occupational therapy students at a Scottish higher education institute (HEI).

This study therefore aims to;

- document knowledge and understanding of fourth (final) year nursing and occupational therapy students in relation to alcohol misuse and alcohol interventions before, immediately following, and three months after, attendance at an ABI workshop; and

- explore newly qualified students’ retrospective perceptions of the workshop, its content, retention and relevance to their practice

RESEARCH DESIGN

Design

A mixed method prospective cohort study.

Sample and recruitment procedures

Participants were all final year undergraduate nursing (NU) and occupational therapy (OT) students matriculated at one Scottish HEI during the academic years 2012/13 (cohort 1) and 2013/14 (cohort 2). The workshop content (see Appendix 1) was delivered by two national ABI trainers during one day of the first semester timetable (November 2012 and 2013). Participation
in the pre- and post- workshop questionnaires and electronic voting was voluntary. Completion of these measures was taken as consent to participate.

Data collection

A mixed methods approach was adopted to enhance feedback and better inform future deliveries of the ABI workshop. Pre- and post- workshop questionnaires were administered to cohort 1 and cohort 2. The timescale of data collection is detailed in table 1.

Qualitative data were collected via focus groups with 10 participants from cohort 1. Inclusion criteria were having qualified in 2013, and subsequently gained employment as practitioners with NHS Lothian Health Board. Owing to time commitments and geographical constraints, of the 20 or so students who responded and met the inclusion criteria, only ten were able to participate. Three separate focus groups were held; two face-to-face within the university setting (four participants in each), and one via Skype (two participants).

Insert table 1

Questionnaires

Questionnaires were developed from Gill and O’May (2007) (informed by Happell and Taylor, 2001). The content of the final versions employed in this study were reviewed and amended by NHS practitioners. The requirements of the NHS Scotland Delivery of Alcohol Brief Interventions Competency Framework (NES, 2010) influenced this content. The questionnaires were internally produced, and do not have external validity or reliability data.
1. Pre-workshop questionnaire:

Demographics were collected; degree specialization and drinker/non-drinker classification. (To maintain anonymity, due to the small number of male students (approximately five percent) matriculated on both courses, gender was not recorded.) Assurances were provided regarding confidentiality, anonymity and student’s right to decline participation. The first section explored knowledge of Scottish alcohol public health messages and sales legislation. The second part explored students’ attitudes to drinking/confidence in alcohol related patient interactions within the context of their role as “future” practitioners.

2. Electronic voting during workshop

During the workshop, student attitudes to alcohol related statements and true/false responses to knowledge questions were collected via an electronic keypad. It was not possible to split responses by degree specialisation or by individual.

3. Post-workshop evaluation.

A post-workshop questionnaire was administered at the end of the workshop day. This documented students’ opinions on whether the workshop had met specified learning outcomes and had raised awareness of and addressed personal knowledge gaps. Their views on workshop content and its relationship to their degree curriculum, workshop delivery and timing of delivery in relation to their overall degree (four year) structure were also collected.

4. Follow up questionnaire (three months post-workshop delivery)
Students were asked to complete, during a timetabled class, a similar questionnaire to that delivered pre-workshop. The questionnaire assessed knowledge retention and changes in attitudes/confidence in alcohol-related patient interactions within the context of their role as “future” practitioners.

For cohort 1, the final page of the questionnaire requested the student to document their mobile phone number if they were willing to be contacted and potentially participate in a focus group approximately six months post qualification. This was to explore their retrospective perceptions of the workshop, its content, retention of information, and its relevance to their current practice.

5. Focus groups

Individuals employed by NHS Lothian approximately six months post-graduation and who had completed the Cohort 1 workshop and three month post-workshop questionnaire were invited to participate in focus groups. These explored three main themes: retention of workshop content; qualified practitioners’ perceptions of factors that may facilitate/impede the effectiveness of brief interventions within clinical settings; and perspectives of education in this area. The focus groups were run by two members of the research team with no previous relationship with the students, lasted between 40-60 minutes, and were digitally recorded, following participant consent. Participants for each of these are detailed in table 2.

Insert table 2.

Ethical considerations
Favourable ethical opinion was obtained from the host HEI Research Ethics Committee. The authors utilised the British Educational Research Association Guidelines (BERA, 2011) as guiding principles in forming their ethical approach to this study.

Data Analysis

All quantitative pre- and post-workshop questionnaire items were scored as either correct/incorrect for knowledge questions, and correct/underestimated/overestimated for estimates of guidelines and units/bottles. These scores were then converted into percentages for correct answers. Coding and data entry of every fifth questionnaire were cross checked. Quantitative data were analysed using the Statistical Package for the Social Sciences (SPSS) version 19. Differences between independent samples were investigated using the t-test for continuous variables and the chi squared test for proportions (level of significance was set at P<0.05).

The three focus groups were transcribed verbatim by the first author, and during this process initial thoughts and ideas were recorded as an essential part of the analytic process (Riessman, 1993). Two members of the team then conducted thematic analysis, as described by Braun and Clarke (2006). All transcripts were read several times to identify categories of relevance to the research aims; emerging themes and commonalities were noted. These categories were then grouped according to consistency in topic, as well as in relation to the research aims, and themes were thereby constructed, representing recurring topics.

RESULTS

Participant characteristics and response rates for those completing questionnaires on the day
of workshop delivery and at three months post-delivery for each cohort are detailed in table 3. At baseline, there were a total of 85 students in cohort 1, and 58 students in cohort 2, representing 100% and 90% response rates, respectively. Follow up questionnaires had response rates of 77.5% for both cohorts (n=66 and n=44 respectively).

Insert table 3.

Unit knowledge and understanding of legislation

Table 4 outlines the percentage of correct responses to questions relating to legislation and knowledge assessment. At pre-workshop baseline, both cohorts and student types (OT/NU) demonstrated reasonable recall of recommended daily units (around two thirds of all students provided correct answers) however skill was evidently poorer in all groups when asked to define binge drinking, or to quantify the unit content of commonly purchased volumes of drinks. (The UK unit is equivalent to 8g of pure ethanol and is the yardstick employed to communicate health guidelines).

When comparing responses obtained at three month follow-up with those provided on the day of the workshop (chi square test), for cohort 1 there was no significant increase in the proportion of students accurately recalling male daily consumption limits (P= 0.18) or female daily consumption limits (P= 0.18), and while the numbers accurately recalling the unit content of a bottle of wine, vodka and white cider increased, no change was statistically significant. Similarly in cohort 2, no significant changes in the proportions displaying accurate drinks related knowledge were evident. (For the pooled data a significant increase in the proportion accurately identifying the unit content of one bottle of wine was noted (p=0.037).
Attitudes and professional role

Both cohorts firmly agreed that their profession had a part to play in ABI delivery, and at three month follow up this was unanimous, but doubts were clear in relation to their perceptions of their personal knowledge and qualities in this area of practice, with some improvements in the latter at 3 month follow-up (questionnaire 4, table 5). Both at baseline and at follow-up a majority of both professions and cohorts believed people should have the right to use alcohol as they wish within their own homes.

Attitudes were further explored during the initial workshop with both cohorts evidencing their support for popular positive perceptions of alcohol (relaxing and that getting drunk once in a while is ok) and alcohol consumption being fairly embedded within Scottish culture (table 6). There appeared to be some apathy regarding current legislative approaches to problem drinking (price increases and advertising bans) but strong agreement with societally negative statements (regarding drinking and driving, exposing children to drunken behaviour, violence and young people drinking to excess. Data not shown.)
The majority of students agreed that the outcomes of the workshop had been met (cohort 1, 80%, cohort 2, 71%) and acknowledged that personal gaps in knowledge relating to units/measures had been addressed (85% in both cohorts agreed strongly). With regard to their clinical placements, on average 80% of students had already experienced working with individuals affected by alcohol issues but only 21.7% felt that the information conveyed through the workshop had been covered elsewhere in their degree curriculum. Despite the near unanimous support for all health professionals having a responsibility to intervene when alcohol misuse is suspected, overall only around two thirds of students disagreed that the topics covered were more relevant to other medical professionals e.g. doctors, with a further 15% expressing no opinion. Both nursing and occupational therapy students expressed the desire that the material be taught earlier in their degree curricula.

Focus Groups - Workshop reflections by new practitioners

Retention of workshop content

The interactive break-out sessions were the most commonly recalled workshop element and were described in detail, particularly in relation to ABIs (and motivational interviewing) and measuring units. The workshop had prompted much thought in relation to personal alcohol consumption, that of close friends and family and as practitioners of clients/patients:

“… if somebody mentions … that they maybe have a drink from time to time, maybe you are aware of asking how much do they actually drink than maybe I would have done before, and, you are probably more aware of how much you are pouring into a glass, and how many units there are to each drink!” (P9)
ABIs were discussed by all groups and in some depth. Participants recalled the content of the specific workshop and also reflected on its usefulness, both with patients with alcohol issues, but also in other situations.

“Yes, because I know on previous placements, although on care plans, you have alcohol ... how much do you drink, but then having had that, it’s not how much, it’s what, and it’s the whole big picture of it. And I think we became more confident to then ask, on our final placement, patients, and as to why we’re doing it, we’re not being nosy, it’s for a specific reason, as to whether or not you need, well, not need help, but you know if there’s any interventions or anything that can be done. I think it gave us more confidence to use it” (P3)

Participants felt that the tools increased their credibility as professionals discussing issues of alcohol, commenting that they felt there was a taboo about discussing it, and perhaps particularly as young people talking to older adults, which the tools helped to bridge. Participants commented favourably on the practical/visual elements facilitating their learning. They also mentioned: the combination of theory and practice; that it was a whole “special” day; that it was delivered by experts from outside the university; and that it was multi-disciplinary, giving a broader range of experiences. However, some participants said that they felt that too much information had been provided all at once, and not at a good stage in their student journey, so were left feeling a bit overloaded.

Practitioners and practice
All interviewees were relatively new in their posts, only one of the three occupational therapy participants was in practice, and no-one reported having used an ABI in practice. However, several felt that the motivational interviewing technique discussed on the training day was both useful, and transferable to other settings,

“Yes, I can still use that in different contexts, definitely. I use it especially for things to do with pain and nausea and things like that, I can use ... open ended questions to try and get a larger picture of how the patient is feeling, definitely. It has been useful definitely in that way”. (P7)

There was a general sense that being aware of motivational interviewing might encourage a little more exploration with patients:

“Like have they had issues in the past, and how that would relate how you would care for them now, kind of thing. It makes you look deeper”. (P6)

Another respondent commented

“... and it's something that's maybe worth bringing up to the rest of the team, see whether they are aware of challenging people and their alcohol use”. (P7)

One participant who worked with patients who were admitted having had seizures because of alcohol withdrawal reported that

“... a lot of the time it’s difficult to initiate an intervention because they are so unwell, or they are still intoxicated ... so I don’t think it’s maybe that appropriate ...

I’ve made a few referrals to the team, the alcohol liaison nurse within the hospital,
but that’s … at their request”. (P10)

She said that patients were generally in her ward for relatively short periods of time before being transferred elsewhere or discharged, and so she rarely had the opportunity to “see things through”. She commented that on the admission notes, staff were directed to ask the patient how many units they drink per week, but that was “just one wee bit” of the notes. Participants also gave personal reasons for not having undertaken ABIs, which related primarily to lack of confidence and experience

“But I don’t know how confident I’d feel talking to somebody about it, especially if the person has dementia or some cognitive … underlying issue as well … I think I would want more training … I don’t know whether it’s just because I’m new as well, and I’m getting to grips with just even the basic things, without thinking about the more difficult issues to talk about with somebody”. (P4)

Education within the practice setting

None of the participants reported having received any training or information regarding alcohol interventions or alcohol policy since being in practice, which one nursing participant found surprising, and felt she should follow up with her work colleagues

“It really should be something that is prevalent within our team, because we are in such close knit with the community … I’ll need to maybe bring that up in a team meeting, possibly!” (P7)

Another participant stated that there was a long waiting list for training days, and that as
newly qualified staff, there were standard courses they were required to undertake before specialist ones. There was a feeling that they would be able to attend courses in time. One participant indicated that before undertaking any form of intervention, they would research it themselves at home, and then speak about it with their supervisor to explore how best to approach it. Others said they would welcome some form of ABI refresher sessions, as they were aware that interventions required having time, resources and support in order to implement.

None of the participants was aware that there were lowered recommended alcohol guidelines for older people, despite some of them working in the care home sector. They were sensitive to the fact that for some people, particularly those who were older, meeting other people in a pub or bar was an important part of socialising, although this should be balanced with any health issues or implications.

Perspective of alcohol education in the HEI curriculum

Some participants felt that the existing curriculum provided adequate information about alcohol, as there were so many other topics to cover, but one suggested that as the issues relating to alcohol misuse were so large in Scotland in particular, more information and training would be worthwhile.

All focus group participants agreed that the ABI training day was beneficial, and should be continued for future students, but suggested ways to change and improve its delivery, e.g. breaking the training into modules, and threading these through the first and second year
curriculum in an incremental fashion, allowing the knowledge gained to be put to use when out on placement, and having the opportunity to discuss with a mentor

“Yeah ... I really could have done with it before last placement. ...But it would have been good to have had something like that day maybe at the end of first year, or something ... And then we can build on that in years to come” (P8).

Participants suggested a presentation from an alcohol liaison nurse, even in first year, which could be tailored and then explored in more depth in subsequent years. It was suggested that having shorter, more informal, sessions, and bringing in people with clinical and/or practical experience could make the learning more relevant and longer-lasting

“... it doesn’t necessarily have to be a day, or a half day, it could just be an hour or a 2 hour session, where... instead of having people giving loads of information, just have like an informal chat, and find out what people know. Or even, I always found somebody coming in, and having real life practice of working with people ... those things were always more inclined to stay in my mind ... than somebody coming in to talk about it, if there was a story behind it, you can, there’s something you remember ... instead of a fact or piece of information. (P4).

To enhance confidence, nurse participants suggested that ABIs be embedded within the curriculum as part of the practical scenarios (Objective Structured Clinical Assessment/Examination, OSCA/Es) employed within the simulated ward environment. It was suggested as a good way to learn the skill, as OSCA/Es are undertaken throughout the undergraduate course, and several different situations could be developed.
Discussion

When explored within the context of “future professionals”, nursing and occupational therapy students in both cohorts evidenced strong opinions at baseline, and unanimously at three month follow up, that their chosen profession had a role to play in the delivery of ABIs. With the exception of nursing students in cohort 2 who reduced their support at three month follow up (table 5), in general there was a robust attitude that all health professionals had a shared responsibility to intervene when a patient was suspected of having a problematic relationship with alcohol. Despite such affirmations of involvement, at baseline less than half the final year students in each cohort considered themselves to hold the appropriate knowledge to correctly inform patients about responsible drinking or excessive alcohol consumption. At follow up the proportions who reported holding appropriate knowledge had risen to over 75%. Confidence in their ability to initiate motivational interviewing as a result of attending the workshop three months previously was indicated by over 81% of students. This increase in reported personal confidence and knowledge post workshop is in line with the findings of a literature review undertaken by Walters et al. (2005) in relation to the delivery of practitioner rather than student workshops.

The findings suggest that despite increasing personal confidence and knowledge post workshop delivery, failure to grasp and retain fundamental concepts (unit calculation and application) limited the worth of more complex information that the students may have assimilated. In general, students were able to correctly quote the recommended daily alcohol unit consumption for men and women. However, this knowledge appeared to be of little use in personal or professional applications, as minimal understanding of what a single unit actually
comprised was evidenced. Baseline knowledge was poor regarding unit content of common
drinks (wine, strong white cider and vodka). Despite a small increase in accuracy of unit
calculations this knowledge remained poor at three month follow up. Knowing how to
calculate units, convert them to total drinks consumed (as this is how most patients report
alcohol consumption i.e. one bottle of wine, two litres of cider) and relate them to
recommended daily drinking guidelines is fundamental to assessing, screening and
informatively delivering ABIs. This was a disappointing finding given the increase in alcohol
related knowledge and confidence in ABI delivery reported by all students at three month
follow-up. However, this resonates with Walters et al.’s (2005) systematic review of the
literature which indicated that self confidence in personal abilities may not be a good measure of
skill acquisition. These findings highlight the need for better alcohol education, in an incremental
and iterative manner, within the HE curriculum. They also support Holloway and Webster’s
(2013a) contention that current curriculum content is not addressing all key elements required to
equip future healthcare practitioners to address patients and clients with alcohol related harm.

When considering themselves as health care professionals, support for ABIs as a tool to
intervene and support patients was evident and this supported the ABI delivery domain
competency statements (NES, 2010). However, this finding contrasted with student personal
opinions, as evidenced by an increased affirmation (baseline to three month follow up) that
people should have the right to use alcohol as they wish within the confines of their own
home (61% to 69%). This attitudinal dissonance could conceivably impact upon students’
behavioural approach as practitioners towards individuals presenting with alcohol related
harm, and their uptake of and engagement with future ABI training.
Although, disappointingly, no participants had actually delivered an ABI since being in practice, reflection on the workshop by our focus group participants revealed a focus on the usefulness of the transferable skill of motivational interviewing. Participants had applied motivational interviewing within a variety of contexts, from taking more thorough patient histories to assessing pain and nausea. It was strongly suggested that ABIs and motivational interviewing be more embedded throughout the curriculum, particularly within nursing, rather than via a single intensive workshop in 4th year, specifically within the practical elements, such as OSCAs/OSCEs. This would allow greater opportunities to build knowledge and confidence and to experience a diversity of scenarios where ABI/MI could be applied, in an incremental and iterative manner. Also, it would facilitate the implementation of skills and knowledge within practice placements, rather than just during one “teachable moment”. Linked to this was a suggestion for the ABI workshop to be delivered earlier in the curriculum, and thereby work as a starting point for further ongoing learning. This is now being offered to second year occupational therapy students within the curriculum at the study HEI.

Of importance is also the impact on the students’ own use of alcohol, McCombie et al. (2016) noting with concern the extent of occupational therapy student’s risky drinking behaviours in America. While the workshop was not primarily aimed at this, students in the focus groups did note the impact of the workshop on raising awareness of their own and their friends’ drinking behaviours.

As new practitioners, the focus group participants had experienced limited opportunity to deliver ABIs. Perceived barriers to delivery included: patients being too unwell, patients spending little
time within their particular work areas, an assumption that someone else, better suited, would address the issue, and lack of personal confidence and experience. They also reported that formal patient questioning of patients about alcohol use was minimal or absent within their respective work environments, and that opportunities to enhance their current knowledge and undertake ABI refresher courses appeared limited. However, many stated that they could see how and where they could apply ABIs in the future, and some suggested making fellow colleagues aware of its potential. We suspect that had we been able to follow up all the participants (in both cohorts), and for longer than 12 months post qualification, we would have found more implementation of ABIs. However, this is speculative. We do not feel that the ABI itself was the issue here; rather the small number of participants recruited to follow up, the settings in which they were working, and the short length of time in employment.

Joseph et al. (2014) propose the International Council of Nurses considers adopting ABIs into contemporary nursing practice. Parkes et al. (2011) suggest that long-term investment in staff training and infrastructure support is required before mainstreaming of ABI into routine practice can be guaranteed.

Student feedback immediately following the workshop was overwhelmingly positive: all learning outcomes had been met; personal gaps in knowledge had been addressed and the workshop style of delivery and interactive “hands on nature” was engaging”. Focus group participants reported finding the materials contained in the ABI information pack very useful, as they could refer to them if unsure of information, as well as show them to others. However, basic information relating to units was not retained. It had either been misinterpreted at time of
delivery, simply not learned or incorrectly recalled. In any case, accurate use of this key piece of information is fundamental to ABI delivery and the success of the governmental package of policy and legislative interventions to reduce alcohol consumption and related illness and injury. These failings support the suggested introduction of alcohol education at all stages of the curriculum, to facilitate retention and consolidation of information.

Limitations
The study recruited a relatively small number of participants, within one HEI setting, meaning the results cannot be considered generaliseable. The focus group participants self selected, and so may have generated a biased sample; additionally, only a small number of graduates were working within the local NHS board, limiting the number available to participate. None of the participants had actually used an ABI in practice, making it hard for them to evaluate the efficacy of the workshop in practice. Resource limitations prevented a Focus Group being carried out with cohort 2, and for further longitudinal exploration.

Conclusions
This study provided a unique perspective in that it followed workshop participants into practice and explored the usefulness of the workshop delivery and content within their new identity as qualified practitioners. Participants indicated that they found themselves questioning and exploring the topic of alcohol and unit consumption not only for themselves and their immediate social circles, but among their families, and more importantly, with their patient/client groups. This evidence of the assimilation, dissemination and application of
acquired knowledge in both personal and professional contexts is a central aim of the Scottish Government’s (2009) alcohol framework: that every individual should look at their own alcohol consumption and decide whether they wish to be part of the problem or part of the solution.

Given the importance of the HEAT 4 standard, it would seem practical to embed ABIs into the national curricula for all nursing (as suggested by Rassool and Rawaf, 2008; de Barros Junqueira et al., 2015), medical, AHP and social care students, so that they join the NHS workforce ready trained, with the appropriate skills and confidence. This has particular importance when considering the recent changes to care provision in Scotland, as outlined in the Christie Report (Scottish Government, 2011), The National Delivery Plan for the Allied Health Professionals in Scotland 2012-2015 (Scottish Government, 2012), and the Public Bodies Act 2014 (Scottish Parliament, 2014). There could also be benefit in extending ABI delivery within other specific contexts and groups, e.g. care homes and older people.

Further work would be welcome in relation to Holloway and Webster’s (2013b) suggestion of developing an online repository detailing alcohol education for all universities as a useful tool to increase the level of knowledge for students, from all disciplines, regarding alcohol misuse. Certainly, the ABI Information Pack given as part of the workshop delivered here would be a worthwhile inclusion. Additionally, more longitudinal research following professionals in practice would help identify barriers and facilitators regarding the use of ABIs. Undoubtedly we feel that the opportunity afforded by the undergraduate programme to introduce ABIs to health care students is highly valuable, as often time and resource pressures of practice may prevent this. Furthermore, the delivery of an ABI to each student participant is of value in itself.
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Table 1. Timescale of data collection

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<th>Delivery point</th>
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<tr>
<td><strong>Cohort 1</strong></td>
<td></td>
</tr>
<tr>
<td>November 2012</td>
<td>1. Pre-workshop questionnaire</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Workshop delivery</td>
<td>2. Electronic feedback collected during workshop</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Post-workshop evaluation collected on completion of workshop</td>
</tr>
<tr>
<td>February 2013</td>
<td>4. 3 month follow-up questionnaire administered at timetabled classes</td>
</tr>
<tr>
<td>November/December 2013</td>
<td>5. Focus Groups</td>
</tr>
<tr>
<td><strong>Cohort 2</strong></td>
<td></td>
</tr>
<tr>
<td>November 2013</td>
<td>1. Pre-workshop questionnaire</td>
</tr>
<tr>
<td>Workshop delivery</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Electronic feedback collected during workshop</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Post-workshop evaluation collected on completion of workshop</td>
</tr>
<tr>
<td>February 2014</td>
<td>4. 3 month follow-up questionnaire administered at timetabled classes</td>
</tr>
</tbody>
</table>
Table 2. Focus groups participant demographics.

<table>
<thead>
<tr>
<th>Participant no.</th>
<th>Focus Group</th>
<th>Profession</th>
<th>Area of Practice/Specialty</th>
<th>Time in post</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Occupational Therapy</td>
<td>Research – mental health and supported employment</td>
<td>5 months</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>Nursing</td>
<td>Older person rehabilitation and palliative care</td>
<td>5 months</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>Nursing</td>
<td>Nursing home and continuing care</td>
<td>3 months</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>Occupational Therapy</td>
<td>Hospital – roaming team, over 55s</td>
<td>1 month</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>Nursing</td>
<td>Nursing home</td>
<td>5 months</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>Nursing</td>
<td>Nursing home</td>
<td>3 months</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>Nursing</td>
<td>Hospital Day Surgery</td>
<td>2 months</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>Occupational Therapy</td>
<td>Research Administrator</td>
<td>3 months</td>
</tr>
<tr>
<td>9</td>
<td>3</td>
<td>Nursing</td>
<td>Respiratory and Cardiology Ward</td>
<td>3 months</td>
</tr>
<tr>
<td>10</td>
<td>3</td>
<td>Nursing</td>
<td>Combined Assessment Unit</td>
<td>2 months</td>
</tr>
</tbody>
</table>
Table 3. Participant demographics.

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Student group</th>
<th>Matric (N)</th>
<th>Attend (N)</th>
<th>Response rate (% of matriculated (% attending))</th>
<th>Drinker (%)</th>
<th>Present at class (N)</th>
<th>Quest. Completed (N)</th>
<th>Response rate (% of those attending at workshop)</th>
<th>Drinker (%)</th>
<th>Code linkage possible (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cohort 1 2012/13</strong></td>
<td>Nurses</td>
<td>43</td>
<td>40</td>
<td>93 (100)</td>
<td>95</td>
<td>30</td>
<td>29</td>
<td>72.5</td>
<td>93</td>
<td>26 (65%)</td>
</tr>
<tr>
<td></td>
<td>Occupational Therapists</td>
<td>46</td>
<td>45</td>
<td>98 (100)</td>
<td>93.3</td>
<td>39</td>
<td>37</td>
<td>82.2</td>
<td>86</td>
<td>34 (75.6%)</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>89</td>
<td>85</td>
<td>85 (100)</td>
<td>94</td>
<td>69</td>
<td>66</td>
<td>77.5</td>
<td>89.4</td>
<td>60 (70.3)</td>
</tr>
<tr>
<td><strong>Cohort 2 2013/14</strong></td>
<td>Nurses</td>
<td>25</td>
<td>24</td>
<td>96 (83)</td>
<td>90</td>
<td>24</td>
<td>16</td>
<td>67</td>
<td>88</td>
<td>16 (100)</td>
</tr>
<tr>
<td></td>
<td>Occupational Therapists</td>
<td>45</td>
<td>32</td>
<td>71 (97)</td>
<td>84</td>
<td>32</td>
<td>28</td>
<td>88</td>
<td>89</td>
<td>28 (100)</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>71</td>
<td>58</td>
<td>83.5 (90)</td>
<td>87</td>
<td>44</td>
<td>77.5</td>
<td>88.5</td>
<td>44 (100)</td>
<td></td>
</tr>
</tbody>
</table>

(A non drinker was defined as someone who drinks no more than 1-2 drinks per year.)
Table 4. Assessment of alcohol knowledge and assessment (pre/3 months post delivery of workshop)

<table>
<thead>
<tr>
<th>Question (answer)</th>
<th>Pre –Delivery (Questionnaire 1.)</th>
<th>3 months post delivery* (Questionnaire 4.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2012-13 Cohort 1</td>
<td>2013-14 Cohort 2</td>
</tr>
<tr>
<td></td>
<td>OT N=45</td>
<td>NU N=40</td>
</tr>
<tr>
<td>What age can someone drink at home with a caregiver giving consent (5 years)</td>
<td>0 (0)</td>
<td>25.0 (10)</td>
</tr>
<tr>
<td>Min. age for purchase of alcohol (18 years)</td>
<td>100 (45)</td>
<td>100 (40)</td>
</tr>
<tr>
<td>Age alcohol consumed with meal on licensed premises (16 years)</td>
<td>28.9 (13)</td>
<td>50.0 (20)</td>
</tr>
<tr>
<td>Legal age purchase liqueur chocolates (16 years)</td>
<td>28.9 (12)</td>
<td>22.5 (9)</td>
</tr>
<tr>
<td>Daily consumption limits for men (3-4 units)</td>
<td>68.9 (31)</td>
<td>55.0 (22)</td>
</tr>
<tr>
<td>Daily consumption limits women (2-3 units)</td>
<td>66.7 (30)</td>
<td>62.5 (25)</td>
</tr>
<tr>
<td>Definition of binge drinking by men (twice daily limit – 6-8 units)</td>
<td>11.1 (5)</td>
<td>15.0 (6)</td>
</tr>
<tr>
<td>Definition of binge drinking by women (twice daily limit 4 4 – 6 units)</td>
<td>22.2 (10)</td>
<td>15.0 (6)</td>
</tr>
<tr>
<td>Units in a bottle of red wine 75cl, (12% abv) (9.0 units)</td>
<td>2.2 (1)</td>
<td>7.5 (3)</td>
</tr>
<tr>
<td>Units in 70 cl bottle of vodka (37.5% abv) (accepted 25-28 units)</td>
<td>6.6 (3)</td>
<td>10 (4)</td>
</tr>
<tr>
<td>Units in 2 litre bottle white cider (7.5% abv) (15 units)</td>
<td>11.1 (5)</td>
<td>7.5 (3)</td>
</tr>
<tr>
<td>Calories in bottle of red wine (accepted 600-650calories)</td>
<td>11.1 (5)</td>
<td>25.0 (10)</td>
</tr>
</tbody>
</table>

*Not all questions were repeated in questionnaire 4

** At 3 months post-workshop delivery, in cohort 1 (2012/13) 29 NU and 37 OT students completed questionnaire 4 (N = 66) while for cohort 2 (2013/14) this figure was 16 NU and 28 OT (N = 44) representing in both cases 77.5 % of those who had attended the full day training workshop.
**Table 5. Attitudes and confidence as “future” health professionals by degree specialisation.**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Questionnaire 1</th>
<th>Questionnaire 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2012-13 Cohort 1</td>
<td>2013-14 Cohort 2</td>
</tr>
<tr>
<td></td>
<td>OT</td>
<td>NU</td>
</tr>
<tr>
<td>My own profession has a role to play in ABI</td>
<td>44 (97.8)</td>
<td>39 (97.5)</td>
</tr>
<tr>
<td>I have appropriate knowledge to advise my patients about responsible drinking/excessive alcohol consumption.</td>
<td>18 (40.0)</td>
<td>20 (50.0)</td>
</tr>
<tr>
<td>Health professionals who identify alcohol problems early can improve chances of treatment success</td>
<td>42 (93.3)</td>
<td>37 (92.5)</td>
</tr>
<tr>
<td>All health professionals in the UK share the responsibility of intervening when a patient is suspected of having an alcohol problem.</td>
<td>44 (97.8)</td>
<td>35 (87.5)</td>
</tr>
<tr>
<td>I believe alcohol problems are beyond the control of the person affected.</td>
<td>11 (24.4)</td>
<td>10 (25.0)</td>
</tr>
<tr>
<td>I believe that I have the personal qualities required to initiate brief interventions relating to responsible drinking.</td>
<td>35 (77.8)</td>
<td>31 (77.5)</td>
</tr>
<tr>
<td>I would feel embarrassed asking patients about their use of alcohol</td>
<td>9 (20.0)</td>
<td>7 (17.5)</td>
</tr>
<tr>
<td>People with an alcohol problem can only be effectively treated when they hit ‘rock bottom’.</td>
<td>2 (4.4)</td>
<td>7 (17.5)</td>
</tr>
<tr>
<td>People should have the right to use alcohol as they wish within the confines of their own home.</td>
<td>26 (57.8)</td>
<td>25 (62.5)</td>
</tr>
<tr>
<td>My understanding of alcohol units and drinking guidelines was greatly improved by attendance at the session in November.</td>
<td>33 (89.2)</td>
<td>27 (93.1)</td>
</tr>
<tr>
<td>My confidence at being able to initiate motivational interviewing has been improved by me attendance at the sessions in November</td>
<td>32 (86.5)</td>
<td>27 (93.1)</td>
</tr>
<tr>
<td>Nursing and Allied Health Professional students should receive teaching around alcohol misuse in the first year of their course.</td>
<td>36 (97.3)</td>
<td>28 (96.6)</td>
</tr>
</tbody>
</table>
Table 6: Attitudes towards popular positive perceptions of alcohol

| ATTITUDES                                                                 | % Agree |  | % Disagree |  | % Not sure |  |
|---------------------------------------------------------------------------|---------|  |------------|  |------------|  |
| Drinking to excess is embedded in Scottish culture, and is here to stay    | 51      | 41 | 32          | 39 | 17         | 20 |
| Alcohol relaxes you when you’re stressed out                              | 70      | 54 | 25          | 33 | 5          | 13 |
| Getting drunk now and again is OK                                         | 74      | 68 | 24          | 28 | 2          | 4  |
| It’s easy to spot someone who drinks too much                             | 21      | 18 | 73          | 76 | 6          | 6  |
| People should not drink any alcohol before driving                        | 94      | 83 | 6           | 17 | 0          | 0  |
| Excessive drinking is a serious problem among young people, and it’s getting worse | 92      | 92 | 4           | 2  | 5          | 6  |
| Health advice changes so often that there is no point in trying to follow it | 8       | 10 | 92          | 81 | 0          | 10 |
| Parents shouldn’t get drunk in front of their children                    | 67      | 77 | 23          | 21 | 10         | 2  |
| Alcohol-related violence is worse than it has ever been                   | 55      | 48 | 7           | 10 | 37         | 42 |
| A ban on alcohol advertising would make no difference to consumption      | 49      | 42 | 43          | 48 | 9          | 10 |
| Raising the price of alcohol would punish people on low incomes and make no difference to problem drinkers | 42 | 58 | 43 | 30 | 14 | 12 |
| Drinking alcohol during the working day is never a good idea               | 78      | 68 | 20          | 25 | 2          | 7  |
| All the fuss about alcohol is missing the point – illegal drugs still cause more problems | 10 | 8  | 63          | 82 | 27         | 10 |
| It’s rude not to join in with drinking rounds in the pub                  | 30      | 24 | 69          | 76 | 1          | 0  |
Appendix 1: Workshop Content

Alcohol Brief Intervention training

09.15 – 09.30 Introductions and initial questionnaire

09.30 – 09.50 Background – what’s the problem?

09.50 – 10.20 Attitudes to alcohol

10.20 – 10.50 Quiz – So you think you know about alcohol? (Using electronic keypads)

10.50 – 11.10 BREAK

11.15 – 11.45 Barriers and Concerns & Raising the Issue

11.45 – 12.00 Screening Tools

12.00 – 12.45 Health Behaviour Change

12.45 – 13.30 LUNCH

13.30 – 14.00 DVD – ‘Here’s how it’s done’

14.00 – 15.55 WORKSHOPS

14.00 – 14.25 Workshop 1: Raising the Issue

14.30 – 14.55 Workshop 2: Screening

15.00 – 15.25 Workshop 3: Measuring Units

15.30 – 15.55 Workshop 4: Delivering an ABI (case study)

16.00 – Complete final questionnaires and FINISH.
Highlights

- We examined the effectiveness of ABI training with final year healthcare students.
- ABI training identified considerable gaps in knowledge, also acknowledged by students.
- Students were supportive of the value and generic application of ABI training.
- Early introduction and iteration of ABI training within the curriculum was advocated.
- The HE sector is a potentially cost-effective means to deliver key ABI training.