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Dental Public Health in Action

The feasibility of using an alcohol screening tool in a UK dental setting to identify patients' alcohol consumption

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Public health competencies being illustrated: *Assessing the evidence on oral health and dental interventions, programmes and services; Oral health improvement; Appropriate decision-making and judgement; Role within the Health Service.*

Initial impetus for action

Alcohol misuse contributes to increased mortality, chronic ill-health, violent crime and anti-social behaviour and places a considerable burden on the NHS (Department of Health, 2009). It is estimated that heavy consumers of tobacco and alcohol (people who smoke two or more packets of cigarettes and drink four or more units of alcohol a day where a unit is 10ml or 8g of pure alcohol) increase their risk of developing an oral and pharyngeal cancer by 36 times when compared to a non-smoker and moderate drinker (Blot, 1992; Cancer Research UK, 2011). Patients who use alcohol at a 'hazardous' or 'harmful' level also have an increased risk of facial injuries and dental trauma (Hutchison *et al.*, 1998).

There is very little information regarding dental teams' involvement in alcohol brief advice to patients. One study in America found that a 15-minute online training module for dental students significantly increased their knowledge of alcohol screening methods as well as their willingness to screen patients (Miller *et al.*, 2006). Shepherd *et al.* (2010) found that General Dental Practitioners (GDPs) had low confidence when talking to patients about their alcohol consumption. The GDPs felt it disrupted the dentist-patient relationship, caused embarrassment and was perceived to be irrelevant to the clinical situation. This lack of confidence had a negative impact on their decision to talk to patients about alcohol.

Miller *et al.* (2006) used an Alcohol Use Disorder Identification Test Consumption, AUDIT C (Bush *et al.*, 1998), screening tool to establish dental patients' alcohol consumption levels and conducted a survey to assess patient acceptability of dentists giving advice on alcohol use. A quarter of patients who completed the assessment had positive screening for heavy alcohol use. Despite three-quarters of the patients being in favour of their dentists enquiring and giving advice about alcohol use, it was the dentists who lacked confidence in the use of alcohol screening tools and were therefore less likely to use them.

Although there is a paucity of evidence of the effectiveness of alcohol brief advice in general dental settings (McAuley *et al.*, 2011), there are opportunities for the dental team to interact with patients regarding their patient's alcohol intake and guidance such as 'Delivering Better Oral Health' provides the tools and the evidence base to undertake very brief advice (Public Health England, 2014).

Solutions suggested

A training module was developed to increase the confidence and skills of dental teams in delivering alcohol brief advice and to support this advice being incorporated into dental appointments. The training module was modelled on previous work conducted with dental teams to raise the issue of smoking with patients and signpost appropriately to NHS Stop Smoking Services. This model addressed the barrier that dental teams had expressed for not attending training, namely 'time' away from practice. The two-part module consisted of an 'Alcohol Advice and the Dental Team Training Workbook' which took 45 minutes to complete and was sent to dental team members prior to the face-to-face training session. This workbook gave the theory behind very brief alcohol advice and introduced AUDIT C (Table 1). AUDIT C was derived from a longer 10-question AUDIT which takes into account alcohol consumption, alcohol-related problems and adverse reactions, and dependence symptoms. The 10 questions were considered labour-intensive and therefore a shortened tool AUDIT C was developed and validated (Bradley *et al.*, 2009) for use in health care. The shortened tool has been reported to perform more efficiently than the full AUDIT in the detection of heavy drinking (Bush *et al.*, 1998). Rubinsky *et al.* (2010; 2013) demonstrated that AUDIT C can be used for decision support in terms of whether the patient requires advice, or onward signposting. The second part of the module was a face-to-face skills session designed to take 45 minutes, focussed on using AUDIT C in practice to identify those who needed information on alcohol or signposting to local services.

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Table 1. AUDIT C, Alcohol Use Disorder Identification Test questions, scoring and recommended action

Questions	*0*	*1*	*2*	*3*	*4*	*Score*
How often do you have a drink containing alcohol?	Never	Monthly or less	2 to 4 times per month	2 to 3 times per week	4 or more times per week	☐
How many units of alcohol do you drink on a typical day when you are drinking?	1 or 2	3 or 4	5 or 6	7 or 9	10 or more	☐
How often have you had 6 or more units if female, or 8 or more if male, on a single occasion in the last year?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	☐

Total score of 0 to 4: give feedback to the patient that they are at lower risk of harm from alcohol, give advice on safe limits, congratulate the patient
Total score of 5 to 9: give the patient brief advice to adjust their intake
Total score of 10 or more: give the patient a signposting leaflet for alcohol services where free and confidential advice can be obtained or advise they should discuss their alcohol use with their GP.

The session was also designed to increase the confidence of those undertaking very brief advice in dental settings with their patients by giving information on the general and oral health impacts of alcohol use and, by using role play, demonstrate how to raise the issue of alcohol with patients. As part of this feasibility study, dental teams who had taken part in the training were asked to conduct alcohol brief interventions using AUDIT C with all new adult patients throughout January 2011 to allow an evaluation to be conducted.

Actual outcome

In January 2011, 20 dental team members were trained within a Bradford dental practice (seven dentists, six dental nurses, three dental receptionists, a hygienist, a practice manager and two dental nurse/oral health promoters).

Evaluation revealed that:

- Participants valued the training and perceived increased confidence to speak to patients about alcohol. They all felt there was nothing missing from the workbook; it prepared them for the skills session and they would choose to carry out training using a workbook and skills session format in the future
- A script for alcohol brief advice detailing how to start the conversation about alcohol would be useful in the first instance until confidence and skills were developed
- They would like feedback from the role play to better understand how their colleagues phrased questions and dealt with patient interactions
- Reception staff felt concerned that it was not within their remit to discuss alcohol with patients. Through further discussion with all the dental team regarding the dental impacts of alcohol, all staff groups agreed that this was indeed part of all members of the dental team's duty of care
- Alcohol consumption questions were not always raised as part of the medical history taking.

AUDIT C screening was undertaken for one month within the dental practice with 29 new patients. The practice did not record whether all patients were asked, or indeed if any patients declined to take part.

Figure 1 shows that males reported alcohol drinking more often than women with the most common response to "How many units are consumed on a daily basis when drinking?" being 10 or more for males and 1 to 2 units for females (Figure 2).

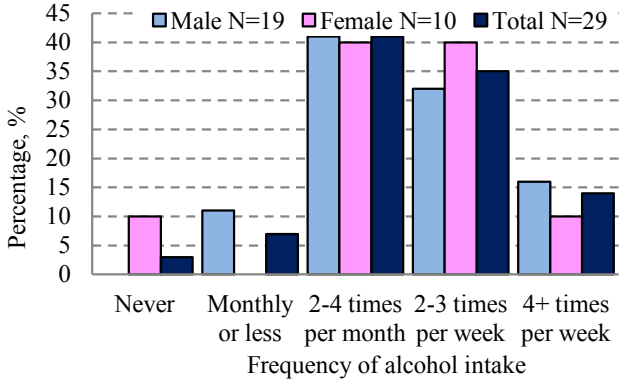

Figure 1. *Frequency of drinking alcoholic drinks by gender and overall*

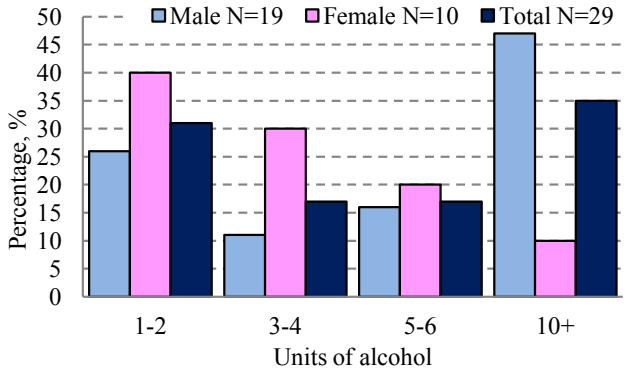

Figure 2. *Units of alcohol consumed on a typical day when drinking, by gender and overall*

An overall AUDIT C score (Figure 3) was obtained to identify patients who needed more information (leaflets were provided) and/or support from a specialist alcohol service. Some 23% of patients who undertook AUDIT C were drinking alcohol within the lower limits, 52% required some brief advice but 25% had a score of 10 or more and were drinking alcohol at a harmful level and required brief advice along with a signposting card and leaflet to help them access further advice/support.

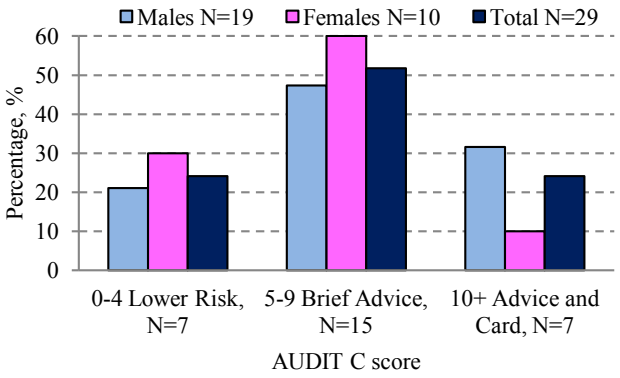

Figure 3. *AUDIT C scores by gender and overall (N=29)*

Challenges addressed

The evaluation shows that it is feasible to use AUDIT C within a primary dental care setting and that the training module developed gave dental team members the skills and confidence to conduct a brief intervention on alcohol with patients. However, it should be noted that a limitation of the research is deployment in only one practice which could introduce bias in terms of the socio-economic demographics of the patients and the acceptability of the tool by the patients. However, the practice served a deprived area and its patient case-load reflected the local makeup of the population.

AUDIT C identified individuals who were drinking alcohol at an increasing or higher risk. These patients were given brief advice and a credit card sized signposting card to ensure they could contact support services at a convenient time.

The evaluation indicated a lack of awareness amongst dental professionals regarding the impacts from increasing and higher alcohol consumption. After training, the teams gave feedback which will help develop future sessions by incorporating additional information, including more role play and providing a script for giving patients feedback from AUDIT C.

A quarter of patients were drinking above the recommended level and this was consistent with results elsewhere (Miller *et al.*, 2006). This study establishes the feasibility of dental teams contributing to the alcohol agenda using very brief advice and, where needed, signposting patients to access further support in reducing their alcohol intake.

Future implications

The success in having established the feasibility of specifically trained dental team members confidently using the screening tool to identify patients' alcohol consumption and respond accordingly, recommends its wider adoption by dental practices and assessing it in other locations. To encourage this, an e-learning resource is being developed.

Learning points

- Training delivered using a workbook and skills session can develop the confidence of dental teams to identify patients' alcohol consumption and to successfully deliver alcohol brief interventions
- AUDIT C is a feasible tool for dental teams to use
- Alcohol brief intervention training for dental team members helps them appreciate their role in advising and enabling those who are drinking above the recommended levels to contact a local general medical practitioner or alcohol support service.

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