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Screening and brief intervention delivery in the workplace to reduce alcohol-related harm: A pilot randomized controlled trial

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ABSTRACT

Aim: To explore the feasibility and cost effectiveness of screening and delivery of a brief intervention for hazardous drinking employees.
Methods: A pilot randomised controlled trial of a brief intervention delivered by an Occupational Health nurse versus no delivery of brief intervention (control group) conducted in a Local Authority Council (LCA) in the United Kingdom. Changes in quality of life and economic indicators were measured by the EQ-5D.
Results: 627 employees were screened of whom 163 (26.01%) fulfilled the inclusion criteria with a total of 57 (35%) agreeing to participate. No significant differences were found between the groups for baseline demographics or levels/patterns of alcohol consumption. A statistically significant effect was found in the mean AUDIT scores over time ($F = 8.96$, $p = 0.004$) but not for group ($F = 0.017$, $p = 0.896$), and no significant interaction was found ($F = 0.148$, $p = 0.702$). The cost of each intervention was calculated at £12.48, the difference in service costs was calculated at £344.50 per person; that is there was a net saving of health and other care costs in the intervention group compared to the control group. The QALYs fell in both intervention and control groups, the difference $-0.002 - (-0.010)$ yields a net advantage of the intervention of 0.008 QALYs.
Conclusion: The main results from this pilot study suggest that alcohol brief interventions delivered in the workplace may offer the potential to reduce alcohol-related harm and save public sector resources. A fully powered multi-centre trial is warranted to contribute to the current evidence base and explore further the potential of alcohol brief interventions in the workplace. In a full trial the recruitment method may need to be re-considered.

What is already known about the topic?

- Hazardous and harmful alcohol consumption impacts negatively on the economic efficiency and productivity within the workplace.
- There is convincing evidence of the effectiveness and cost-effectiveness of alcohol brief interventions in primary care.

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- There is a lack of robust evidence regarding the effectiveness of alcohol brief interventions in the workplace is lacking.

What this paper adds

- This paper identifies alcohol brief interventions delivered in an Occupational Health Setting offering the potential for reducing levels of alcohol consumption amongst employees.
- The design and implementation of a fully powered RCT of alcohol brief intervention within the working population would have to give careful consideration to the recruitment strategy.
- Occupational Health nurses have a role to play in the delivery of alcohol brief interventions in the workplace.

1. Introduction

The most recent findings, based on the General Lifestyle Survey Overview 2010, suggest that 43% and 37% of working men and women respectively in the United Kingdom (UK) consume alcohol at levels that exceed the daily benchmarks ([ONS], 2010). The negative impact of hazardous and harmful drinking on health and wellbeing for individuals and at societal level is well documented ([WHO], 2014) being identified as the second largest risk factor for disease burden in Europe and the leading risk factor in the Americas and the Western Pacific (WHO, 2014). Hazardous drinking has been described as a pattern of drinking where there is an absence of any current disorder but with an increased risk of harmful consequences for the user (Babor et al., 2001). Whilst harmful drinking is considered as patterns of consumption that has resulted in the individual already experiencing psychological, physical and social consequences (Babor et al., 2001).

In the UK (Bayley et al., 2011; (NICE), 2008; Scottish Government, 2008), European Union (Anderson, 2010), Australia (Australian Institute of Health & Welfare, 2010; Collins and Lapsley, 2008), Canada (Rehm et al., 2006), Asia (Thavorncharoensap et al., 2006) and United States of America [USA] (Harwood, 2000) the impact of alcohol consumption on economic efficiency and productivity within the workplace has been identified.

Employed men (73%) and women (62%) are more likely to have drunk alcohol in the previous week than those who are unemployed or economically inactive (ONS, 2010). The cost of alcohol misuse through lost productivity in England was estimated to be £6.4B (Cabinet Office, 2004). In Scotland it was conservatively estimated that over 1 million sick days are lost from the workplace as a result of alcohol dependence (Varney and Guest, 2002). The cost of alcohol misuse to the Scottish taxpayers could be around £3.56 billion per year (Scottish Government Social Research, 2010). Problems that can affect organisations include poor performance at work and reduced productivity, increased staff turnover and loss of experienced staff, increased accident rates, stress and low morale and damage to an organisation's reputation and image (Alcohol Concern, 2001, 2006; Godfrey, 1997). Most recently the Institute of Alcohol Studies (2013) reported that 77% of employers identified alcohol as a principle threat to the wellbeing of employees, the Science Group of the Alcohol and Health Forum (2011) considered the impact of alcohol on work and productivity, with the British Medical Association (2014).

There is increasing focus on prevention to help improve the nation's health and reduce health inequalities (Marmot, 2010). In the USA, Roman and Blum (2002) advocated the considerable potential workplace programmes can have in preventing and reducing alcohol-related problems among employees. The Health Departments for both Scotland and England have highlighted the importance of Occupational Health Services in providing screening and interventions on a range of lifestyle issues (DoH, 2004; Scottish Executive, 2003). Access to Occupational Health Services among employers ranges between 15% and 96% across Europe (Pilkington et al., 2002), and are increasingly available to the working population in the United Kingdom (Nicholson, 2002). An evidence based review suggests that workplace interventions have a critical role to play not only in the workplace but also in the health of society (VicHealth, 2012). Within Europe, the European Commission launched the Focus on Alcohol Safe Environment (FASE) project with the aim of building capacity at the European, country, regional and municipal levels to bring together the best practices in work-place strategies to reduce the impact of harmful and hazardous alcohol consumption on the economy (Koeppe, 2010).

The implementation of health promotion in the workplace and achievement of a reduction in hazardous/harmful drinking are key objectives of a range of national and international public health policy documents such as Improving Scotland's Health: the Challenge (Scottish Executive, 2003), Choosing Health (DoH, 2004), Health for All in the 21st Century (WHO, 2006) and Eurocare Recommendations for a future EU Alcohol Strategy (Eurocare European Alcohol Policy Alliance, 2012). Despite this, the Health Development Agency (2004) has suggested that few Occupational Health Services in the United Kingdom offer lifestyle screening unlike some Scandinavian countries (Aalto et al., 1999; Hermansson et al., 2003) which offer periodic health checks routinely in the workplace. Such activities could provide an opportunity for screening for hazardous/harmful levels and patterns of alcohol consumption. In her review of the health of Britain's working age population, Dame Carol Black identified the major influence that the working environment can have on employees' wellbeing alongside the key role of Occupational Health (Black, 2008).

There is also convincing evidence of the benefits of generic health professionals providing a brief intervention, in the form of simple advice or brief counselling to patients in primary care for those whose levels and patterns of consumption place them at risk of developing alcohol dependency (Kaner et al., 2007; Moyer et al., 2002). Such interventions have been shown to be cost effective when delivered in this setting (Drummond et al., 2003; Kaner et al., 2009; Ludbrook et al., 2002). Despite nurses being the largest group of health professionals, who often are the first to come into contact with individuals experiencing alcohol-related harm, the evidence does suggest that they