## Evidence review for use of 'Beer Goggles' in alcohol prevention & education

'Beer Goggles' have been used in alcohol prevention and education work with young people for many years. They can help to engage young people in discussion around alcohol, risks and personal safety; however there has been limited consideration to the effectiveness of the approach. A short review of the available evidence follows.

Fatal Vision Goggles were designed primarily as an aid to demonstrate the potential impact of drinking and driving. The producers claim <u>here</u> that *'although* group demonstrations are often amusing to observers, research has clearly shown that the greatest benefits occur when individuals experience the impairment themselves ( $\underline{v}$ ,  $\underline{vi}$ ).'

This statement suggests the goggles produce greatest benefit to individuals who have directly used the tool – however neither reference refers to use of the goggles. The producer also claims *'Hennessey's research demonstrates that those with higher self efficacy will be more affected by using the Fatal Vision Goggles (xxiv)*.' Full access to this article is unavailable, and this claim cannot be confirmed from the available text. The abstract explains the study method, using driving simulation with the goggles, plus attitudes to drinking and driving. Drinking and driving intentions were reduced following use of the goggles among those that:

- typically drink more during outings
- believe the likelihood of collisions when drinking and driving are greater
- are less likely to drive to achieve independence and autonomy

The intervention appears to alter attitudes in participants with certain characteristics (potentially the reference to those with higher self efficacy) and certain baseline attitudes. As a result, it seems unlikely the intervention will result in behaviour change.

<u>Jewell *et al.*, (2004)</u> compared three groups of college students; a control group (who watched a 5 minute video featuring a mother whose son died due to a drink driving incident), an observation group (who observed the activities of the goggle group), and a group that wore the goggles. The goggle group achieved a significant improvement in attitudes about drinking and driving, immediately following the intervention. Improvements in the control group and the observation group were comparable.

This study backs up the claim of the producers, that the greatest benefits occur when a participant uses the goggles themselves; however any medium or long term benefit, ongoing attitudinal change or behaviour change are not considered.





Jewell and Hupp (2005) go further with the study design, including two control groups (one as before and other with an unrelated video shown), plus the observation group and the goggle group. In addition, they included a four week follow up. As before, the goggle group showed significant improvement in attitudes following the intervention. However, this increase had disappeared at the four week follow up, and no behaviour change had occurred.

'The authors present strong evidence that this is a prevention strategy that does not result in behavioural change.'

The most recent study by <u>McCartney *et al.*, (2017)</u> aimed to test if the goggles have a similar effect to alcohol consumption on simulated driving ability. The study abstract concludes that the goggles 'may have some utility in replicating alcoholrelated impairment on specific driving performance measurements', however full access of the article is unavailable and so further detail cannot be scrutinised.

There is concern that the goggles have the potential to exaggerate effects of alcohol, and therefore lend themselves to a fear-based approach, which is known be ineffective (<u>Warren, 2016</u>).

## Conclusion

The goggles were designed in attempt to alter drink driving behaviours. There is no evidence to show the goggles result in behaviour change, although short term attitudinal change has occurred in individuals with certain characteristics who have used the goggles.

Facilitator style may have more impact than the goggles themselves, however if the goggles are to be used, they must be part of a wider, evidence based prevention approach. As they were designed for drink driving prevention, it is important to consider the aim of using the goggles with younger people, for whom driving is of limited relevance. Moreover, the goggles have not been evaluated with other aspects of alcohol use, including sexual health.

To help decide whether to use resources or approaches, consider the following criteria questions:

- Is there evidence of effectiveness to support use of this recourse / approach?
- Will using this resource / approach help achieve the aims of the intervention?
- What positive outcomes could come from using this resource / approach?
- Are there any negative outcomes that could come from using this resource / approach?

Eve MacLeod, Health Improvement Specialist, Public Health Directorate January 2018



