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Letter to Editor

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Reply to Smith *et al.* Regarding 'Does Advice Based on Biomarkers of Liver Injury or Non-Invasive Tests of Liver Fibrosis Impact High-Risk Drinking Behaviour: A Systematic Review with Meta-Analysis'

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We thank Smith *et al.* for their useful comments for further developing our systematic review (Subhani *et al.*, 2021) to maximize validity and value. They highlighted three main areas of interest which we have taken this opportunity to address in turn.

Firstly, we agree that the need to separate biofeedback and brief intervention is important in understanding the contribution of each. As no group received biofeedback without brief advice, we attempted to investigate this by looking at biofeedback + brief advice vs a range of alternatives. We found (see Table 2 of the original publication) that the biofeedback + brief advice only had an alcohol consumption change mean difference of −78 g/week ($P = 0.16$) suggesting the biofeedback does have a role to play (although we note the lack of statistical significance and small number of studies $n = 3$).

Secondly, we have taken the opportunity to repeat the analysis amongst community-based studies only. This analysis of nine studies and $n = 976$ individuals found the weighted mean average difference of weekly alcohol intake between the intervention and control (brief and/or no advice) groups was −49.06 g/week (95%CI −81.83 to −16.28). The results remained significant ($P = 0.003$) and favoured the positive effect of intervention-based advice including feedback on laboratory tests or markers of fibrosis to reduce alcohol intake in community settings (Fig. 1).

Thirdly, the question of the risk of harms biofeedback may introduce through the false reassurance of some participants we agree is hugely important. The literature to answer this specific question is scarce. Both Foucher *et al.* (2009) and Matthews *et al.* 2019 report adding biofeedback based on fibroscan results increased patient uptake to specialist clinic. They did not report or discuss any harmful impact when fibroscan result was negative. The study of Sheron *et al.* (2013) using the Southampton traffic light (STL) score for biofeedback when assessing liver fibrosis demonstrated a significant reduction of Alcohol Use Disorder Identification Test (AUDIT) score across all risk groups, reduction being greater amongst intermediate and high-risk groups. Only 0.02% (5/192) participants in test-negative group and 0.014% (3/202) in intermediate and high-risk groups reported an increase in AUDIT. In Nottingham, within the Scarred Liver Project, researchers found that only participants with normal liver stiffness (TE readings < 8 kPa) significantly reduced their consumption (Matias *et al.*, 2020). Overall, these studies are reassuring regarding the use of biofeedback amongst people who consume alcohol excessively. However, we agree this aspect does require further research. Hopefully with future feasibility (e.g. Ryder, 2021), we will be able answer this question.

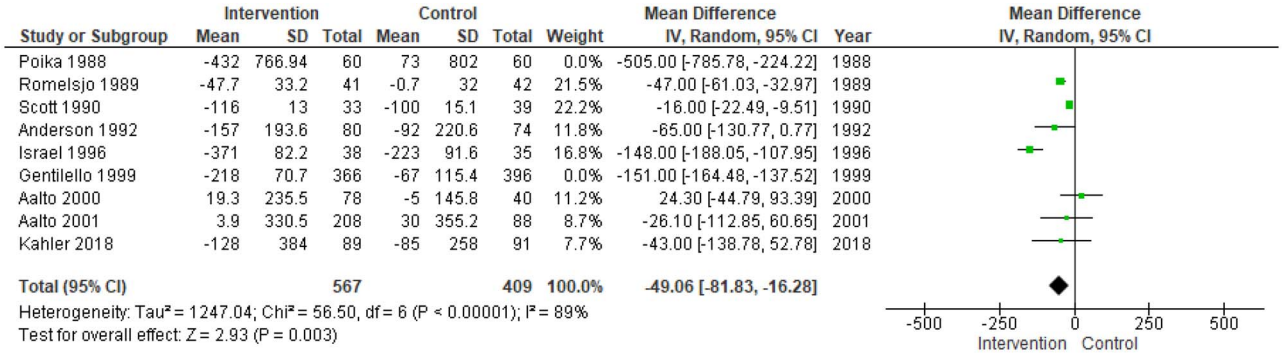

Fig. 1. Change in self-reported alcohol intake (gram/week) for studies done in community only.

REFERENCES

Foucher J, Reiller B, Jullien V *et al.* (2009) FibroScan used in street-based outreach for drug users is useful for hepatitis C virus screening and management: a prospective study. *J Viral Hepat* 16:121–31.

Matthews K, MacGilchrist A, Coulter-Smith M *et al.* (2019) A nurse-led FibroScan((R)) outreach clinic encourages socially deprived heavy drinkers to engage with liver services. *J Clin Nurs* 28:650–62.

Matias OHK, Chalmers J, Harris R, Guha N, Morling J. (2020) Reductions in weight and alcohol consumption following transient elastography and brief lifestyle intervention for patients at risk of liver disease, *Public Health Research and Science Conference 2020*. University of Manchester.

Ryder SR (2021) Does knowledge of liver fibrosis affect high risk drinking behaviour (KLIFAD)? A feasibility randomised controlled trial Protocol lodged at. doi: 10.1186/ISRCTN16922410.

Sheron N, Moore M, O'Brien W *et al.* (2013) Feasibility of detection and intervention for alcohol-related liver disease in the community: the alcohol and liver disease detection study (ALDDeS). *Br J Gen Pract* 63: e698–705.

Subhani M, Knight H, Ryder S *et al.* (2021) Does advice based on biomarkers of liver injury or non-invasive tests of liver fibrosis impact high-risk drinking behaviour: a systematic review with meta-analysis. *Alcohol Alcohol* 56:185–200.