Ultra-brief breath counting (mindfulness) training promotes recovery from stress-induced alcohol-seeking in student drinkers
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Introduction
• It remains unclear how mindfulness intervention improves drinking outcomes.
• Short breath counting (attention directed to breathing) is a mindful meditation exercise that can reduce reactivity to stress induction.\(^2\)\(^3\)
• The current study investigated whether breath counting would attenuate a stress-induced increase in alcohol-seeking behaviour.
• This finding would suggest that mindfulness may improve drinking outcomes by building resilience to negative drinking triggers.

Methods
• Percent choice of alcohol versus food pictures (alcohol-seeking), was measured at baseline in 192 student drinkers.
• Separate groups then received a 6-minute audio file which either trained breath counting or recited a popular science extract.
• Alcohol-seeking was measured again under stress induction by a loud industrial noise.
• The breath counting group were instructed to deploy this technique during the stress test.

Results
Percent alcohol vs. food choice (see Figure A)
- Alcohol-seeking did not differ between groups at baseline.
- Both groups showed a significant increase in stress induced alcohol seeking at test bin 1, compared to baseline: \(F(1,186) = 13.88, p <0.001\)
- Alcohol-seeking was significantly lower in the breath counting than control group at stress test bin 2: \(F(1,186) = 5.74, p = .018\) and bin 3: \(F(1,186) = 4.77, p =.030\).
- There was a significant linear decline in alcohol choice over stress test in the breath counting: \(F(1,92) = 12.95, p= .001\), but not in the control group: \(F(1,94) = 1.04, p=.311\)

Moderation analysis (see Figure B and C)
Significant moderation effects: The recovery from stress induced alcohol-seeking produced by breath counting was weaker in individuals with more problematic drinking (AUDIT and PROMIS alcohol use), suggesting therapeutic limits of this strategy.

Discussion
• Deployment of a briefly trained breath counting technique promoted recovery from stress induced alcohol-seeking in students.
• Breath counting produced weaker recovery from stress induced alcohol-seeking in more problematic drinkers suggesting there may be therapeutic limits in clinical samples.

References