

**LETTER TO THE EDITOR**

**Hawthorne effect in the YourCall trial suggested by participants’ qualitative responses**



Dear Editor,

We commend McCambridge et al. [1] for their elegant trial evaluating if the Hawthorne effect influenced self-reported alcohol consumption online. They first “dismantled” the Hawthorne effect into two components (the effect of participants’ awareness that the behavior is being monitored and the effect of participants completing behavioral assessments). The subsequent methodological experiment found no evidence supporting either of these component effects on self-reported alcohol consumption online. Importantly, the authors recommend examining the effects in contexts where interpersonal contact may be a more prominent feature of the study.

Our research group has conducted a randomized controlled trial evaluating the effect of a low-intensity, automated, culturally appropriate, text message intervention (called “YourCall”) based on the brief intervention model [2] and designed to reduce hazardous alcohol use in injured adult patients discharged from trauma wards [3]. This involved face-to-face enrollment and baseline assessment including alcohol screening conducted by research assistants, with subsequent alcohol use data collected by text message at 3 and 6 months and an online survey at 12 months. Although the main trial finding was of a significant reduction in hazardous drinking in the intervention compared with control (usual care) group at 3 months and sustained to 12 months follow-up, we observed a substantial reduction in hazardous drinking in the control group between baseline and follow-up points [3]. As previously noted by others, this could be due to the influence of participating in a research study, that is, the awareness that alcohol use

was a focus of this study, and the repeated assessments of alcohol use (i.e., assessment reactivity) [1,4,5]. Other explanations include regression to the mean [6] and the effect of being unwell with an injury and/or recovering from surgery and therefore not taking part in usual activities.

To examine potential influences on reported alcohol use including potential “treatment effects” in the control group, we examined the qualitative responses to two open-ended questions in the 12-month survey, which explored participants’ perceptions of their research experience (Table 1). Free-text responses were analyzed using a general inductive approach [7].

Overall, most responses indicated positive perceptions of being involved in the study, from both intervention and control group respondents. Of the five main themes that emerged (Table 2), the most dominant was “contemplation about alcohol use,” suggesting that respondents were prompted to think about their alcohol use.

This finding alongside more generalized positive perceptions regarding the research experience expressed by control group respondents suggests that participating in the study resulted in a beneficial effect on their alcohol use. Although we cannot quantify the extent to which the observed change in alcohol use in the control group is attributable to the Hawthorne effect or determine which of the two components referred to by McCambridge et al. may be most influential, the phenomenon is likely to have underestimated the intervention effect in our study.

**Table 1**  
Participants’ responses to free-text questions in 12-mo survey

Characteristics	Control group, n (%)	Intervention group, n (%)	Total, n (%)
What were some of the good things about being in this study?	167 (55.8)	163 (54.5)	330 (55.2)
Female	45 (26.9)	44 (27.3)	89 (27.0)
Māori ethnicity	37 (22.2)	30 (18.4)	67 (20.3)
Age group 16–29 y	62 (37.1)	72 (44.2)	134 (40.6)
What did you like the least about being in this study?	149 (49.8)	147 (49.2)	296 (49.5)
Female	42 (28.2)	39 (26.5)	81 (27.4)
Māori ethnicity	33 (22.1)	28 (19.0)	61 (20.6)
Age group 16–29 y	56 (37.6)	66 (44.9)	122 (41.2)

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Ethics approval and consent to participate: The “YourCall” trial was approved by the New Zealand Health and Disability Ethics Committee (12/NTB/28) and was carried out in accordance with the ethical guidelines of the National Ethics Advisory Committee (New Zealand). Written informed consent was obtained from all participants.

Declarations of interest: None.

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**Table 2**

Overview of upper- and lower-level themes from qualitative analysis

Upper-level themes	Lower-level themes	Dominance of theme
Contemplation about alcohol use	Learning and awareness “It made me think” Alcohol drinking habits—frequency and quantity Reminder function	The most dominant theme emerging from the free-text responses Lower level category themes appear in both treatment groups; “it made me think” was the strongest subtheme
<i>Examples of quotations from respondents</i>	<p>“It made me realize how much I was actually drinking, learnt what a standard drink is” (Control, ID 10792, male, 16–19 y, Māori)</p> <p>“It was a good way to make me think about drinking and its impact on both myself and those around me.” (Control, ID 11855, female, 30–34 y, NZ European)</p> <p>“Thinking about maybe I am drinking too often and sometimes too much.” (Control, ID 14133, female, 50–54 y, NZ European)</p> <p>“It’s a great reminder about how to control my alcohol.” (Intervention, ID 11950, male, 30–34 y, Pacific)</p>	
Decision made or action taken to change behavior	Decision to make a change A change has been made	Less dominant theme Lower level category themes appear in both treatment groups
<i>Examples of quotations from respondents</i>	<p>“A reminder that alcohol is actually an issue, my decision to refrain from drinking was much easier having texts coming through to support me.” (Intervention, ID 11057, female, 20–24 y, Māori)</p> <p>“More self-awareness. Helped me in making a conscious decision to reduce my intake.” (Control, ID 10538, male, 35–39 y, NZ European)</p>	
Characteristics of text messages	Timing and frequency Relevance of content Phone credit	Dominant theme Differences between treatment groups Positive and negative perspectives related to the first two lower-level themes
<i>Examples of quotations from respondents</i>	<p>“The texts came regularly and were a gentle reminder to me.” (Intervention, ID 10239, female, 45–49 y, NZ European)</p> <p>“I started to find the regular texts quite intrusive... it just went on for so long.” (Intervention, ID 14212, male, 40–44 y, NZ European)</p> <p>“The concern and advice was timely and helpful. Kept me focused on cutting down alcohol every day.” (Intervention, ID 10678, female, 60–64 y, NZ European)</p> <p>“I never had credit to reply back to text messages” (Intervention, ID 11057, female, 20–24 y, Māori)</p>	
Involvement in a research study	Helping others Appreciation of study attributes	Dominant theme Theme and subthemes emerged more strongly in the control group
<i>Examples of quotations from respondents</i>	<p>“I like to help progress knowledge and so am happy to help research.” (Control, ID 10165, male, 50–54 y, NZ European)</p> <p>“I like the idea of a research project to do with alcohol.” (Intervention, ID 11009, male, 40–44 y, NZ European)</p> <p>“It was simple and easy to take part in. Also liked the initial company in the hospital.” (Control, ID 10348, female, 20–24 y, NZ European)</p>	
“Not for me”	Not relevant “I am not a heavy drinker”	Less dominant theme Evident in intervention group only
<i>Examples of quotations from respondents</i>	<p>“Didn’t really relate to my situation.” (Intervention, ID 10249, female, 30–34 y, NZ European)</p> <p>“This study was just not for me as I’m not a heavy drinker.” (Intervention, ID 11203, female, 20–24 y, Māori)</p>	

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