Author's response to reviews

Title: A Feasibility Study of Short Message Service Text Messaging as a Surveillance Tool for Alcohol Consumption and Vehicle for Interventions in University Students

Authors:

Simon C Moore (mooresc2@cardiff.ac.uk)
Katherine Crompton (st09003588@outlook.cardiffmet.ac.uk)
Stephanie van Goozen (vangoozens@cf.ac.uk)
Marianne van den Bree (vandenbreemb@cf.ac.uk)
Julia Bunney (bunneyjl@cf.ac.uk)
Emma Lydall (emma.lydall@wales.nhs.uk)

Version: 5 Date: 20 September 2013

Author's response to reviews: see over
Confidential comments to editors

Title: A Feasibility Study of Short Message Service Text Messaging as a Surveillance Tool for Alcohol Consumption and Vehicle for Interventions in University Students

Authors:

Simon C Moore (mooresc2@cardiff.ac.uk)
Katherine Crompton (st09003588@outlook.cardiffmet.ac.uk)
Stephanie van Goozen (vangoozens@cf.ac.uk)
Marianne van den Bree (vandenbreemb@cf.ac.uk)
Julia Bunney (bunneyjl@cf.ac.uk)
Emma Lydall (emma.lydall@wales.nhs.uk)

Version: 4 Date: 16 September 2013

Comments: see over
Reviewer: Brian Suffoletto

Reviewer's report:

1. Abstract: Methods: Please add the number of days of SMS queries, as requested in prior review

This has been added to the abstract

2. Background: When referring to Suffoletto paper, please remove "Emergency Department" as the SMS were not sent in the ED. They were young adults identified with hazardous drinking in the ED.

This has been changed

3. Fig 7: Arrow needs to be removed from those who failed to join study

This arrow has been removed.

Reviewer: Janette - Baird

4. Introduction: Opening paragraph seems poorly placed, should be concluding paragraph after background literature (Page 4)

This has been moved to the end of the Introduction

5. Page 5 second paragraph, poor choice of words line 5/6 using ‘knowing’ and ‘known’ in same sentence, change ‘known’ to specific. End of page 5 to start of page 6 is a really long sentence and contains some grammatical errors ‘While there is also some interested (should be interest) in developing…….’ Needs broken up as it is really confusing to read.

This sentence has been revised

6. Page 8 second paragraph ‘take up and attrition’ of what? The SMS texts, the surveys?

"from a SMS survey of drinking habits" has been added and the sentence revised

7. Again this section is confusing and poorly written, as an example: "The latter aim was necessary as SMS messages are limited in size yet through surveillance data might be used to reflect back to respondents’ aspects of their consumption” I think this means using SMS messages as feedback but I am not sure.

This paragraph has been rewritten

8. Methods: page 9. I think scrutinized is an odd word to use here, given the role of an IRB or research ethics committee; would ‘reviewed’ be a better one?

It has been swapped to "reviewed"
9. Page 10, second paragraph, for sake of uniformity, as the authors briefly stated how participants in study I were obtained I think this should also be briefly done for participants in Study II.

How participants were obtained is in the Participants section of Study II Methods.

10. Materials page 10 and page 11. On page 10 it reads that at the Freshers’ fayre (I think), potential participants completed consent and gave information about contact and alcohol use, then on page 11 it is reported that an online survey was created (I am not sure when) that seemed to collect the same information, with the addition of the AUDIT. So why was contact and FAST data collected twice?

It is clear in the manuscript that the initial recruitment form was very brief and the online survey collected much more detailed (demographic) information.

11. Are these data collection points separated in time, if so by how long?

"Participants were sent through SMS the web address of the online survey, at the beginning of the survey and again every two months" has been added to the Procedure section.

12. Page 11: I am still confused as to why the AUDIT and FAST were used, but that aside, what does this sentence mean: “Both AUDIT and FAST are therefore used to allocate alcohol intervention resources efficiently, so that effectiveness is maximized”? If both measures screen levels of severity of alcohol use, is it efficient or effective to use both measures?

Typically, when brief alcohol interventions are delivered in practice, for example in primary care, patients will first be triaged to determine their risk of hazardous alcohol consumption. Those most at risk will require specialist treatment. Those at no risk don’t require any form of intervention. Those at moderate risk are those who will most likely benefit from a brief intervention. So, if interventions were delivered without any form of triage then we would be wasting resources on those at no risk and those at greatest risk. Effectiveness is therefore maximised by this triage process. The instruments used to determine level of hazardous alcohol use are the AUDIT (seen by many as the "gold standard") and the FAST. The FAST is much shorter than the AUDIT and was developed because busy practitioners don’t usually have the time to deliver the longer AUDIT. The questions on the FAST are a subset of those asked in the AUDIT. So if we are having respondents complete the AUDIT then they are also completing the FAST. From our perspective, we would rather just use the FAST as it is our hope to develop this work to a point where it can be implemented in a busy clinic. But, because AUDIT is popular we expect to run into criticisms for doing so. So having data where we can show correlations between FAST, AUDIT and SMS consumption data would help offset this. The relevant section has been revised.

13. Procedures: page 12. The online survey discussed in the last paragraph is actually administered 3 times, as I learn later in the results section. This needs to be stated earlier either in the measures or procedure sections.

This has been added.

14. Page 13 second paragraph. Were the interviews with the participants taped?

No
15. Page 14: When using abbreviation define at first use. FE = fixed effects

The first mention " Fixed effects (FE) Poisson regression" is in full.

16. Page 16: Why were the questions on social perceptions and delay discounting not included in study II?

This was very much a separate aspect of the current research.

17. Results: Page 18. Introduce the first CONSORT diagram (this should be figure 1 and not the table of results). Also, the CONSORT diagram for study I omits any information on those who completed the semi-structured interview, no numbers (how many took part in the semi-structured interviews) no information showing where these participants fit in this flow diagram. I do not know, but should know from the CONSORT figure, if the participants who completed the semi-structured interviews completed all three surveys, two surveys, one survey, or no surveys.

In the manuscript it is clear that participants in the qualitative research were stratified by involvement (those who responded at least once in the SMS survey and those that did not respond at least once). The qualitative component has been added to the CONSORT diagram.

18. Page 24: Why so little information about the participants interviewed for the qualitative analysis?

This is included in the initial discussion of those eligible to participate.

19. Page 28. We go from past to present tense “students are happy…….” A lot of this paragraph is poorly written. Although in general the earlier sections of the results section read well.

This has been revised

20. Study II Page 29. Again make reference to the appropriate CONSORT figure.

All the figures have been checked and referenced appropriately

21. This figure is very confusing, I think because it contains arrows at the wrong place. The way it is currently presented it seems that those who failed to respond to the invitation (n =406 ) continue to have baseline data collected and one of this group drops out. I know that this is not what happens but if you looked at this figure and did not read any of the results it would look as if this is what happened.

This errant arrow has been removed

22. Page 29. What were the ages of these participants, and gender the composition?

Age has been added, gender composition is reported in the participants section.

23. Was age and gender equal for each group? Such basic information needs to be presented. I do not understand the effect size and power estimation give. If only the student cohorts are examined, the control students decreased by .05, the intervention by .26, this is a difference in means of .21, using the assumed pooled SD used by the authors of 1.7 (but not adjusting for repeated measures)
The effect size is .13, so I am not sure how 45 per sample would achieve the power necessary to reject the null hypothesis.

We have redone the power analysis, but with the null mean as pre-intervention mean and the effect as post-intervention. I think this is the best way of describing this effect, any future trial would likely take this as a starting point and probably oversample. So it would always be a guide.

24. Discussion section: Are you using information from any particular source when you state that attrition was caused by students not being aware of what they were signing up for? If you are please state what this is. Last line first paragraph, “suggesting that this medium is generally more acceptable”; for what?

This was discovered in the qualitative study, this has been noted.

25. In general the discussion section does read well, although the non-significant difference between groups from study II is really overlooked.

This has been noted.