## CONSORT-EHEALTH (V 1.6.1) - Submission/Publication Form

The CONSORT-EHEALTH checklist is intended for authors of randomized trials evaluating web-based and Internet-based applications/interventions, including mobile interventions, electronic games (incl multiplayer games), social media, certain telehealth applications, and other interactive and/or networked electronic applications. Some of the items (e.g. all subitems under item 5 - description of the intervention) may also be applicable for other study designs.

The goal of the CONSORT EHEALTH checklist and guideline is to be

- a) a guide for reporting for authors of RCTs,
- b) to form a basis for appraisal of an ehealth trial (in terms of validity)

CONSORT-EHEALTH items/subitems are MANDATORY reporting items for studies published in the Journal of Medical Internet Research and other journals / scientific societies endorsing the checklist.

Items numbered 1., 2., 3., 4a., 4b etc are original CONSORT or CONSORT-NPT (non-pharmacologic treatment) items.

Items with Roman numerals (i., ii, iii, iv etc.) are CONSORT-EHEALTH extensions/clarifications.

As the CONSORT-EHEALTH checklist is still considered in a formative stage, we would ask that you also RATE ON A SCALE OF 1-5 how important/useful you feel each item is FOR THE PURPOSE OF THE CHECKLIST and reporting guideline (optional).

Mandatory reporting items are marked with a red \*.

In the textboxes, either copy & paste the relevant sections from your manuscript into this form - please include any quotes from your manuscript in QUOTATION MARKS,

or answer directly by providing additional information not in the manuscript, or elaborating on why the item was not relevant for this study.

YOUR ANSWERS WILL BE PUBLISHED AS A SUPPLEMENTARY FILE TO YOUR PUBLICATION IN JMIR AND ARE CONSIDERED PART OF YOUR PUBLICATION (IF ACCEPTED).

Please fill in these questions diligently. Information will not be copyedited, so please use proper spelling and grammar, use correct capitalization, and avoid abbreviations.

DO NOT FORGET TO SAVE AS PDF \_AND\_ CLICK THE SUBMIT BUTTON SO YOUR ANSWERS ARE IN OUR DATABASE !!!

Citation Suggestion (if you append the pdf as Appendix we suggest to cite this paper in the caption): Eysenbach G, CONSORT-EHEALTH Group

CONSORT-EHEALTH: Improving and Standardizing Evaluation Reports of Web-based and Mobile Health Interventions

J Med Internet Res 2011;13(4):e126 URL: http://www.jmir.org/2011/4/e126/

doi: 10.2196/jmir.1923 PMID: 22209829

#### \*Required

Your name \*

First Last

Cassandra JC Wright

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#### Title of your manuscript \*

Provide the (draft) title of your manuscript.

Mobile Phone-Based Ecological Momentary Intervention to Reduce Young Adults' Alcohol Use in the Event: A Three-Armed Randomized Controlled Trial



#### Name of your App/Software/Intervention \*

If there is a short and a long/alternate name, write the short name first and add the long name in brackets.

MIDY (Mobile Intervention for Drinking ir

#### **Evaluated Version (if any)**

e.g. "V1", "Release 2017-03-01", "Version 2.0.27913"

Your answer

#### Language(s) \*

What language is the intervention/app in? If multiple languages are available, separate by comma (e.g. "English, French")

#### URL of your Intervention Website or App \*

e.g. a direct link to the mobile app on app in appstore (itunes, Google Play), or URL of the website. If the intervention is a DVD or hardware, you can also link to an Amazon page.

http://www.midy.com.au

#### URL of an image/screenshot (optional)

Your answer

Accessibility * Can an enduser access the intervention presently?
access is free and open
access only for special usergroups, not open
access is open to everyone, but requires payment/subscription/in-app purchases
app/intervention no longer accessible
Other:
Primary Medical Indication/Disease/Condition * e.g. "Stress", "Diabetes", or define the target group in brackets after the condition, e.g. "Autism (Parents of children with)", "Alzheimers (Informal Caregivers of)"
Alcohol use (risky single occasion drinki
Primary Outcomes measured in trial * comma-separated list of primary outcomes reported in the trial
Peak drinking

Your response is too large. Try shortening some answers.

Are there any other outcomes the intervention is expected to affect?

Secondary/other outcomes

Recommended "Dose" * What do the instructions for users say on how often the app should be used?
Approximately Daily
Approximately Weekly
Approximately Monthly
Approximately Yearly
"as needed"
Other:
Approx. Percentage of Users (starters) still using the app as recommended after 3 months *
unknown / not evaluated
O-10%
O 11-20%
O 21-30%
31-40%
O 41-50%
51-60%
O 61-70%
71%-80%
81-90%
91-100%
Other:

Overall, was the app/intervention effective? *
yes: all primary outcomes were significantly better in intervention group vs control
partly: SOME primary outcomes were significantly better in intervention group vs control
on statistically significant difference between control and intervention
or more outcomes
inconclusive: more research is needed
Other:
Article Preparation Status/Stage *  At which stage in your article preparation are you currently (at the time you fill in this form)
At which stage in your article preparation are you currently (at the time you fill in this form)
At which stage in your article preparation are you currently (at the time you fill in this form)  not submitted yet - in early draft status
At which stage in your article preparation are you currently (at the time you fill in this form)  not submitted yet - in early draft status  not submitted yet - in late draft status, just before submission
At which stage in your article preparation are you currently (at the time you fill in this form)  onot submitted yet - in early draft status  not submitted yet - in late draft status, just before submission  submitted to a journal but not reviewed yet
At which stage in your article preparation are you currently (at the time you fill in this form)  onot submitted yet - in early draft status  not submitted yet - in late draft status, just before submission  submitted to a journal but not reviewed yet  submitted to a journal and after receiving initial reviewer comments
At which stage in your article preparation are you currently (at the time you fill in this form)  ont submitted yet - in early draft status  not submitted yet - in late draft status, just before submission  submitted to a journal but not reviewed yet  submitted to a journal and after receiving initial reviewer comments  submitted to a journal and accepted, but not published yet

Journal *  If you already know where you will submit this paper (or if it is already submitted), please provide the journal name (if it is not JMIR, provide the journal name under "other")
onot submitted yet / unclear where I will submit this
O Journal of Medical Internet Research (JMIR)
JMIR mHealth and UHealth
JMIR Serious Games
JMIR Mental Health
JMIR Public Health
JMIR Formative Research
Other JMIR sister journal
Other:
Is this a full powered effectiveness trial or a pilot/feasibility trial?  *  Pilot/feasibility
C Fully powered
Manuscript tracking number *  If this is a JMIR submission, please provide the manuscript tracking number under "other" (The ms tracking number can be found in the submission acknowledgement email, or when you login as author in JMIR. If the paper is already published in JMIR, then the ms tracking number is the four-digit number at the end of the DOI, to be found at the bottom of each published article in JMIR)
on ms number (yet) / not (yet) submitted to / published in JMIR
Other: 9324
TITLE AND ABSTRACT
1a) TITLE: Identification as a randomized trial in the title

CONSORT-EHEALTH (V 1.6.1) - Submission/Publication Form
1a) Does your paper address CONSORT item 1a? * I.e does the title contain the phrase "Randomized Controlled Trial"? (if not, explain the reason under "other")
yes
Other:
1a-i) Identify the mode of delivery in the title
Identify the mode of delivery. Preferably use "web-based" and/or "mobile" and/or "electronic game"
in the title. Avoid ambiguous terms like "online", "virtual", "interactive". Use "Internet-based" only if
Intervention includes non-web-based Internet components (e.g. email), use "computer-based" or "clastronia" only if offling products are used. Here "virtual" only in the context of "virtual reality." (2.D.
"electronic" only if offline products are used. Use "virtual" only in the context of "virtual reality" (3-D

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worlds). Use "online" only in the context of "online support groups". Complement or substitute product names with broader terms for the class of products (such as "mobile" or "smart phone"

instead of "iphone"), especially if the application runs on different platforms.

#### Does your paper address subitem 1a-i? \*

Copy and paste relevant sections from manuscript title (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Mobile Phone-Based Ecological Momentary Intervention"

### 1a-ii) Non-web-based components or important co-interventions in title

Mention non-web-based components or important co-interventions in title, if any (e.g., "with telephone support").

#### Does your paper address subitem 1a-ii?

Copy and paste relevant sections from manuscript title (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

#### N/A - No other co-interventions

#### 1a-iii) Primary condition or target group in the title

Mention primary condition or target group in the title, if any (e.g., "for children with Type I Diabetes") Example: A Web-based and Mobile Intervention with Telephone Support for Children with Type I Diabetes: Randomized Controlled Trial

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#### Does your paper address subitem 1a-iii? \*

Copy and paste relevant sections from manuscript title (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Intervention to Reduce Young Adults' Alcohol Use"

1b) ABSTRACT: Structured summary of trial design, methods, results, and conclusions

NPT extension: Description of experimental treatment, comparator, care providers, centers, and blinding status.

## 1b-i) Key features/functionalities/components of the intervention and comparator in the METHODS section of the ABSTRACT

Mention key features/functionalities/components of the intervention and comparator in the abstract. If possible, also mention theories and principles used for designing the site. Keep in mind the needs of systematic reviewers and indexers by including important synonyms. (Note: Only report in the abstract what the main paper is reporting. If this information is missing from the main body of text, consider adding it)

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#### Does your paper address subitem 1b-i? \*

Copy and paste relevant sections from the manuscript abstract (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"The intervention group (ecological momentary intervention group) completed repeated ecological momentary assessments during 6 drinking events and received immediate texting-based feedback in response to each ecological momentary assessment. The second group (ecological momentary assessment group) completed ecological momentary assessments without the brief intervention, and the third did not receive any contact during the trial period. "

### 1b-ii) Level of human involvement in the METHODS section of the ABSTRACT

Clarify the level of human involvement in the abstract, e.g., use phrases like "fully automated" vs. "therapist/nurse/care provider/physician-assisted" (mention number and expertise of providers involved, if any). (Note: Only report in the abstract what the main paper is reporting. If this information is missing from the main body of text, consider adding it)

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#### Does your paper address subitem 1b-ii?

Copy and paste relevant sections from the manuscript abstract (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

N/A

### 1b-iii) Open vs. closed, web-based (self-assessment) vs. face-to-face assessments in the METHODS section of the ABSTRACT

Mention how participants were recruited (online vs. offline), e.g., from an open access website or from a clinic or a closed online user group (closed usergroup trial), and clarify if this was a purely web-based trial, or there were face-to-face components (as part of the intervention or for assessment). Clearly say if outcomes were self-assessed through questionnaires (as common in web-based trials). Note: In traditional offline trials, an open trial (open-label trial) is a type of clinical trial in which both the researchers and participants know which treatment is being administered. To avoid confusion, use "blinded" or "unblinded" to indicated the level of blinding instead of "open", as "open" in web-based trials usually refers to "open access" (i.e. participants can self-enrol). (Note: Only report in the abstract what the main paper is reporting. If this information is missing from the main body of text, consider adding it)

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#### Does your paper address subitem 1b-iii?

Copy and paste relevant sections from the manuscript abstract (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"mobile Web-based ecological momentary assessment"

"Recent peak risky single-occasion drinking was assessed at the baseline and follow-up using telephone interviews"



#### 1b-iv) RESULTS section in abstract must contain use data

Report number of participants enrolled/assessed in each group, the use/uptake of the intervention (e.g., attrition/adherence metrics, use over time, number of logins etc.), in addition to primary/secondary outcomes. (Note: Only report in the abstract what the main paper is reporting. If this information is missing from the main body of text, consider adding it)

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subitem not at all important	0	0	$\circ$		$\circ$	essential

#### Does your paper address subitem 1b-iv?

Copy and paste relevant sections from the manuscript abstract (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Your answer

#### 1b-v) CONCLUSIONS/DISCUSSION in abstract for negative trials

Conclusions/Discussions in abstract for negative trials: Discuss the primary outcome - if the trial is negative (primary outcome not changed), and the intervention was not used, discuss whether negative results are attributable to lack of uptake and discuss reasons. (Note: Only report in the abstract what the main paper is reporting. If this information is missing from the main body of text, consider adding it)

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#### Does your paper address subitem 1b-v?

Copy and paste relevant sections from the manuscript abstract (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"With a small number of participants, this study showed few effects of an SMS-based brief intervention on peak risky single-occasion drinking. Nevertheless, the study highlights areas for further investigation into the effects of EMI on young adults with heavy alcohol consumption."

INTRODUCTION

2a) In INTRODUCTION: Scientific background and explanation of rationale

#### 2a-i) Problem and the type of system/solution

Describe the problem and the type of system/solution that is object of the study: intended as standalone intervention vs. incorporated in broader health care program? Intended for a particular patient population? Goals of the intervention, e.g., being more cost-effective to other interventions, replace or complement other solutions? (Note: Details about the intervention are provided in "Methods" under 5)

#### Does your paper address subitem 2a-i? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Brief interventions (BIs) are one of few individual-level strategies that have demonstrated efficacy for reducing alcohol consumption in young people [2,3]; these interventions commonly involve screening and assessing drinking behavior and providing personalized feedback. Research has revealed that BIs can be feasibly and acceptably delivered through Web-based technologies; these innovations reduce cost, enhance convenience, and expand intervention reach. A recent systematic review assessed the effects of 93 computer-delivered interventions and reported small but significant effects on 5 alcohol outcomes [4]. In young people, specifically, Kypri et al [5] and Voogt et al [6] have demonstrated the efficacy of Web-based BIs for reducing RSOD."

### 2a-ii) Scientific background, rationale: What is known about the (type of) system

Scientific background, rationale: What is known about the (type of) system that is the object of the study (be sure to discuss the use of similar systems for other conditions/diagnoses, if appropiate), motivation for the study, i.e. what are the reasons for and what is the context for this specific study, from which stakeholder viewpoint is the study performed, potential impact of findings [2]. Briefly justify the choice of the comparator.

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subitem not at all important	0	$\bigcirc$	$\circ$	$\circ$	$\circ$	essential

#### Does your paper address subitem 2a-ii? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Ecological momentary intervention (EMI) is an extension of EMA that provides intervention based on responses provided in EMA. Logically, the design of EMI depends on the intensity and nature of EMA to which it responds. Just as EMA can be delivered during risk events, such as drinking episodes, EMI can be delivered at a point of time when a behavior of interest is occurring. The effectiveness of real-time interventions appears to be enhanced when EMA are used to tailor content delivered within EMI [14]. In domains other than alcohol use, real-time mobile phone interventions have shown success in improving health behaviors, including sexual health and risk behavior [15,16], smoking cessation [17,18], weight management [19,20], and physical activity [21]. However, few studies have investigated the effects of EMI on alcohol consumption."

2b) In INTRODUCTION: Specific objectives or hypotheses



#### Does your paper address CONSORT subitem 2b? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"We conducted a three-armed randomized controlled trial (RCT) to assess the effect of a mobile Web-based EMA with texting feedback on self-reported alcohol consumption and alcohol-related harms in young adults.



METHODS

3a) Description of trial design (such as parallel, factorial) including allocation ratio



#### Does your paper address CONSORT subitem 3a? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"We conducted a three-armed randomized controlled trial (RCT)" "Participants who agreed to be contacted about the trial were randomly allocated to one of the 3 arms as follows: an intervention group that received a BI delivered over mobile phone (EMI group) or two control groups in which the participants either completed EMAs without BI (EMA group) or did not receive any contact throughout the trial period (no-contact group)."

3b) Important changes to methods after trial commencement (such as eligibility criteria), with reasons

#### Does your paper address CONSORT subitem 3b? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

N/A - changes not made after commencement

#### 3b-i) Bug fixes, Downtimes, Content Changes

Bug fixes, Downtimes, Content Changes: ehealth systems are often dynamic systems. A description of changes to methods therefore also includes important changes made on the intervention or comparator during the trial (e.g., major bug fixes or changes in the functionality or content) (5-iii) and other "unexpected events" that may have influenced study design such as staff changes, system failures/downtimes, etc. [2].

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#### Does your paper address subitem 3b-i?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Although we tested all features of the intervention comprehensively leading up to implementation, we still encountered problems, including some questionnaire links not being sent on a requested event night, questionnaire links being sent after participants had opted out during an event, and some feedback messages not being sent for EMI participants. Table 5 describes the nature and frequency of technical difficulties encountered during the study period."

4a) Eligibility criteria for participants



#### Does your paper address CONSORT subitem 4a? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Participants were eligible if they owned a smartphone and reported recent risky drinking behavior (≥5 drinks in a single session in the past 3 months)."



#### 4a-i) Computer / Internet literacy

Computer / Internet literacy is often an implicit "de facto" eligibility criterion - this should be explicitly clarified.

#### Does your paper address subitem 4a-i?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Your answer

#### 4a-ii) Open vs. closed, web-based vs. face-to-face assessments:

Open vs. closed, web-based vs. face-to-face assessments: Mention how participants were recruited (online vs. offline), e.g., from an open access website or from a clinic, and clarify if this was a purely web-based trial, or there were face-to-face components (as part of the intervention or for assessment), i.e., to what degree got the study team to know the participant. In online-only trials, clarify if participants were quasi-anonymous and whether having multiple identities was possible or whether technical or logistical measures (e.g., cookies, email confirmation, phone calls) were used to detect/prevent these.

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subitem not at all important	0	$\circ$	$\circ$	$\circ$	$\circ$	essential

#### Does your paper address subitem 4a-ii? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Participants were recruited from the Young Adults Alcohol Study (YAAS) [25], which is an observational cohort study of young adults living in Melbourne, Australia. This study has included annual telephone interviews"

#### 4a-iii) Information giving during recruitment

Information given during recruitment. Specify how participants were briefed for recruitment and in the informed consent procedures (e.g., publish the informed consent documentation as appendix, see also item X26), as this information may have an effect on user self-selection, user expectation and may also bias results.

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subitem not at all important	0	$\circ$	$\circ$	$\circ$	$\circ$	essential

#### Does your paper address subitem 4a-iii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Participants were sent detailed information about their group's specific procedures and were asked to register to use the relevant intervention."





#### Does your paper address CONSORT subitem 4b? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Participants were recruited from the Young Adults Alcohol Study (YAAS) [25], which is an observational cohort study of young adults living in Melbourne, Australia."



### 4b-i) Report if outcomes were (self-)assessed through online questionnaires

Clearly report if outcomes were (self-)assessed through online questionnaires (as common in webbased trials) or otherwise.

	1	2	3	4	5	
subitem not at all important	0	0	$\circ$	0	$\circ$	essential

#### Does your paper address subitem 4b-i? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"The primary outcome measure was the peak number of drinks consumed in a single night (peak RSOD) at baseline and follow-up"

"Follow-up telephone interviews commenced 12 weeks after the first person registered "

#### 4b-ii) Report how institutional affiliations are displayed

Report how institutional affiliations are displayed to potential participants [on ehealth media], as affiliations with prestigious hospitals or universities may affect volunteer rates, use, and reactions with regards to an intervention. (Not a required item – describe only if this may bias results)

	1	2	3	4	5	
subitem not at all important	0	0	0	0	0	essential

#### Does your paper address subitem 4b-ii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

5) The interventions for each group with sufficient details to allow replication, including how and when they were actually administered

## 5-i) Mention names, credential, affiliations of the developers, sponsors, and owners

Mention names, credential, affiliations of the developers, sponsors, and owners [6] (if authors/evaluators are owners or developer of the software, this needs to be declared in a "Conflict of interest" section or mentioned elsewhere in the manuscript).

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subitem not at all important	0	$\circ$	$\circ$	$\circ$	$\circ$	essential

#### Does your paper address subitem 5-i?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

N/A This is not a commercial product.

"We contracted SurveySignal to develop and program the online module that sent all EMA SMS text messages, captured data, and sent feedback SMS text message."

#### 5-ii) Describe the history/development process

Describe the history/development process of the application and previous formative evaluations (e.g., focus groups, usability testing), as these will have an impact on adoption/use rates and help with interpreting results.

	1	2	3	4	5	
subitem not at all important	0	0	$\circ$	0	$\circ$	essential

#### Does your paper address subitem 5-ii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"The intervention, including both EMA and intervention message components, was co-designed by young people in a development study that utilized focus group workshops, individual testing,

#### 5-iii) Revisions and updating

Revisions and updating. Clearly mention the date and/or version number of the application/intervention (and comparator, if applicable) evaluated, or describe whether the intervention underwent major changes during the evaluation process, or whether the development and/or content was "frozen" during the trial. Describe dynamic components such as news feeds or changing content which may have an impact on the replicability of the intervention (for unexpected events see item 3b).

#### Does your paper address subitem 5-iii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"We refined our message content based on feedback received in our development study follow-up interviews, which included both a survey, rating scales for individual messages received, and an in-depth interview. This refinement process included removing unpopular messages and message themes, creating alternative messages with similar text for high-rating messages (to ensure variety when tested on multiple nights), and creating new messages as suggested by participants in their follow-up interviews."

#### 5-iv) Quality assurance methods

Provide information on quality assurance methods to ensure accuracy and quality of information provided [1], if applicable.

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#### Does your paper address subitem 5-iv?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Your answer

## 5-v) Ensure replicability by publishing the source code, and/or providing screenshots/screen-capture video, and/or providing flowcharts of the algorithms used

Ensure replicability by publishing the source code, and/or providing screenshots/screen-capture video, and/or providing flowcharts of the algorithms used. Replicability (i.e., other researchers should in principle be able to replicate the study) is a hallmark of scientific reporting.

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subitem not at all important	$\circ$	$\circ$	0	0	0	essential

#### Does your paper address subitem 5-v?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Examples of messages have been provided, source code is not relevant.

#### 5-vi) Digital preservation

Digital preservation: Provide the URL of the application, but as the intervention is likely to change or disappear over the course of the years; also make sure the intervention is archived (Internet Archive, <a href="webcitation.org">webcitation.org</a>, and/or publishing the source code or screenshots/videos alongside the article). As pages behind login screens cannot be archived, consider creating demo pages which are accessible without login.

	1	2	3	4	5	
subitem not at all important	$\circ$	$\circ$	$\circ$	$\circ$	0	essential

#### Does your paper address subitem 5-vi?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

N/A

#### 5-vii) Access

Access: Describe how participants accessed the application, in what setting/context, if they had to pay (or were paid) or not, whether they had to be a member of specific group. If known, describe how participants obtained "access to the platform and Internet" [1]. To ensure access for editors/reviewers/readers, consider to provide a "backdoor" login account or demo mode for reviewers/readers to explore the application (also important for archiving purposes, see vi).

1 2 3 4 5

subitem not at all important O O O essential

#### Does your paper address subitem 5-vii? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Participants were recruited from the Young Adults Alcohol Study (YAAS) [25], which is an observational cohort study of young adults living in Melbourne, Australia. This study has included annual telephone interviews, and participants have never previously been offered any intervention. The YAAS cohort study commenced in 2012 with a representative sample of 802 Melburnians aged 18-25 years, screened for engagement in very high-risk drinking (≥7 standard drinks in a single occasion for females and ≥10 for males) [25]."

#### 5-viii) Mode of delivery, features/functionalities/components of the intervention and comparator, and the theoretical framework

Describe mode of delivery, features/functionalities/components of the intervention and comparator, and the theoretical framework [6] used to design them (instructional strategy [1], behaviour change techniques, persuasive features, etc., see e.g., [7, 8] for terminology). This includes an in-depth description of the content (including where it is coming from and who developed it) [1]," whether [and how] it is tailored to individual circumstances and allows users to track their progress and receive feedback" [6]. This also includes a description of communication delivery channels and – if computer-mediated communication is a component – whether communication was synchronous or asynchronous [6]. It also includes information on presentation strategies [1], including page design principles, average amount of text on pages, presence of hyperlinks to other resources, etc. [1].

1 2 3 4 5

subitem not at all important O O O essential

#### Does your paper address subitem 5-viii? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Participants from the EMI and EMA groups were asked to choose 6 weekend nights on which they were planning to drink during the 12-week study period to complete EMA surveys. No minimum consumption was specified. Participants were prompted each Thursday afternoon with an SMS text message reminder to register the nights over the weekend on which they planned to drink..... The 6 pm presurvey comprised questions about the participants' intentions for the night, including how much they planned to drink, spend, and eat; a ranked list of particular adverse events they wished to avoid; their planned mode of transport home; next day plans; any alcohol consumption so far; mood; and the option of writing a message to themselves, which would be sent back to them during the night. At hourly intervals between 7 pm and 2 am, participants were sent a shorter EMA questionnaire asking about the current venue type, alcohol consumption since the last survey, spending, mood, and self-reported drunkenness. Participants were able to opt out of the intervention at the end of each questionnaire if their evening's drinking was about to end.... In addition to completing EMAs, the EMI group received the texting BI component. Following submission of each EMA questionnaire throughout intervention nights, they received a tailored feedback SMS text message."

#### 5-ix) Describe use parameters

Describe use parameters (e.g., intended "doses" and optimal timing for use). Clarify what instructions or recommendations were given to the user, e.g., regarding timing, frequency, heaviness of use, if any, or was the intervention used ad libitum.



#### Does your paper address subitem 5-ix?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Participants from the EMI and EMA groups were asked to choose 6 weekend nights on which they were planning to drink during the 12-week study period to complete EMA surveys."



#### 5-x) Clarify the level of human involvement

Clarify the level of human involvement (care providers or health professionals, also technical assistance) in the e-intervention or as co-intervention (detail number and expertise of professionals involved, if any, as well as "type of assistance offered, the timing and frequency of the support, how it is initiated, and the medium by which the assistance is delivered". It may be necessary to distinguish between the level of human involvement required for the trial, and the level of human involvement required for a routine application outside of a RCT setting (discuss under item 21 – generalizability).

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subitem not at all important	0	0	0	0	$\circ$	essentia

#### Does your paper address subitem 5-x?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Both message content and questionnaires were designed during the formative study [26], which took 3 months of a researcher's time and review from 2 senior researchers. We contracted the Social Research Centre (Melbourne, Australia) to recruit and interview participants. In addition, we purchased a standard license from SurveyGizmo to develop and host our EMA surveys. We contracted SurveySignal to develop and program the online module that sent all EMA SMS text messages, captured data, and sent feedback SMS text message. Researchers spent 4 months testing and refining the program."

#### 5-xi) Report any prompts/reminders used

Report any prompts/reminders used: Clarify if there were prompts (letters, emails, phone calls, SMS) to use the application, what triggered them, frequency etc. It may be necessary to distinguish between the level of prompts/reminders required for the trial, and the level of prompts/reminders for a routine application outside of a RCT setting (discuss under item 21 – generalizability).

	1	2	3	4	5	
subitem not at all important	0	0	$\circ$	$\circ$	$\circ$	essential

#### Does your paper address subitem 5-xi? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Participants were

prompted each Thursday afternoon with an SMS text message reminder to register the nights over the weekend on which they planned to drink."

#### 5-xii) Describe any co-interventions (incl. training/support)

Describe any co-interventions (incl. training/support): Clearly state any interventions that are provided in addition to the targeted eHealth intervention, as ehealth intervention may not be designed as stand-alone intervention. This includes training sessions and support [1]. It may be necessary to distinguish between the level of training required for the trial, and the level of training for a routine application outside of a RCT setting (discuss under item 21 – generalizability.

	1	2	3	4	5	
subitem not at	$\circ$	$\circ$	0	$\circ$	$\circ$	essential

#### Does your paper address subitem 5-xii? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

N/A - no co-interventions used

6a) Completely defined pre-specified primary and secondary outcome measures, including how and when they were assessed

#### Does your paper address CONSORT subitem 6a? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

#### "Primary Outcome Measure

The primary outcome measure was the peak number of drinks consumed in a single night (peak RSOD) at baseline and follow-up, and the primary comparison was between those receiving the intervention (EMI) and the primary control participants (no contact). Our focus on heavy drinking from an occasional or binge perspective is because this pattern is the main risky drinking pattern in our target age group [25,33]. This outcome was measured by asking participants about the number of drinks consumed in their heaviest drinking occasion in the past 3 months at both baseline and follow-up telephone interviews."

Secondary Outcome Measures also described in full.

## 6a-i) Online questionnaires: describe if they were validated for online use and apply CHERRIES items to describe how the questionnaires were designed/deployed

If outcomes were obtained through online questionnaires, describe if they were validated for online use and apply CHERRIES items to describe how the questionnaires were designed/deployed [9].

	1	2	3	4	5	
subitem not at	$\circ$	$\circ$	0	$\circ$	0	essential

#### Does your paper address subitem 6a-i?

Copy and paste relevant sections from manuscript text

N/A - no online questionnaires used for outcomes.

### 6a-ii) Describe whether and how "use" (including intensity of use/dosage) was defined/measured/monitored

Describe whether and how "use" (including intensity of use/dosage) was defined/measured/monitored (logins, logfile analysis, etc.). Use/adoption metrics are important process outcomes that should be reported in any ehealth trial.

2 3 4 5

#### Does your paper address subitem 6a-ii?

Copy and paste relevant sections from manuscript text

"For both EMI and EMA groups, 63% (36/57) of participants signed up for 6 or more events and the majority completed surveys for all 6 events (58% [15/26] of the EMI group and 57% [18/31] of the EMA group). EMI participants signed up for a mean of 4.8 events and completed a mean of 4.5 events. EMA participants signed up for a mean of 4.5 events and completed a mean of 4.2. A small number of participants neither signed up for any event (7%; 5/57) nor completed any EMA."

"We analyzed data from all participants who consented to participate in the trial and were randomized, regardless of their adherence to the planned intervention and participation in follow-up (ie, an intention-to-treat approach)."

### 6a-iii) Describe whether, how, and when qualitative feedback from participants was obtained

Describe whether, how, and when qualitative feedback from participants was obtained (e.g., through emails, feedback forms, interviews, focus groups).

1 2 3 4 5

subitem not at all important O O O essential

#### Does your paper address subitem 6a-iii?

Copy and paste relevant sections from manuscript text

N/A no qualitative feedback was obtained

6b) Any changes to trial outcomes after the trial commenced, with reasons

#### Does your paper address CONSORT subitem 6b? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

#### N/A no changes to trial

#### 7a) How sample size was determined



NPT: When applicable, details of whether and how the clustering by care provides or centers was addressed

#### 7a-i) Describe whether and how expected attrition was taken into account when calculating the sample size

Describe whether and how expected attrition was taken into account when calculating the sample size.

	1	2	3	4	5	
subitem not at all important	0	0	0	$\circ$	0	essential

#### Does your paper address subitem 7a-i?

Copy and paste relevant sections from manuscript title (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Assuming an SD of the peak RSOD of 5.2, 67% endpoint participation, 90% power, and 5% significance, we estimated that a sample of 127 participants per group was required."





#### Does your paper address CONSORT subitem 7b? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

No stopping guidelines/interim analyses

8a) Method used to generate the random allocation sequence



NPT: When applicable, how care providers were allocated to each trial group

#### Does your paper address CONSORT subitem 8a? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Described in detail in the protocol paper.

8b) Type of randomisation; details of any restriction (such as blocking and block size)

#### Does your paper address CONSORT subitem 8b? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Described in detail in the protocol paper.

9) Mechanism used to implement the random allocation sequence (such as sequentially numbered containers), describing any steps taken to conceal the sequence until interventions were assigned

#### Does your paper address CONSORT subitem 9? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Described in detail in the protocol paper.

10) Who generated the random allocation sequence, who enrolled participants, and who assigned participants to interventions

#### Does your paper address CONSORT subitem 10? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Described in detail in the protocol paper.

11a) If done, who was blinded after assignment to interventions (for example, participants, care providers, those assessing outcomes) and how

NPT: Whether or not administering co-interventions were blinded to group assignment

#### 11a-i) Specify who was blinded, and who wasn't

Specify who was blinded, and who wasn't. Usually, in web-based trials it is not possible to blind the participants [1, 3] (this should be clearly acknowledged), but it may be possible to blind outcome assessors, those doing data analysis or those administering co-interventions (if any).

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subitem not at all important	0	0	0	0	0	essential

#### Does your paper address subitem 11a-i? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

### " The nature of the

intervention meant that it was impossible to blind participants; however, they remained unaware of the detailed procedures of the other arms."

# 11a-ii) Discuss e.g., whether participants knew which intervention was the "intervention of interest" and which one was the "comparator"

Informed consent procedures (4a-ii) can create biases and certain expectations - discuss e.g., whether participants knew which intervention was the "intervention of interest" and which one was the "comparator".

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subitem not at all important	$\bigcirc$	0	0	0	$\circ$	essential

#### Does your paper address subitem 11a-ii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"The nature of the intervention meant that it was impossible to blind participants; however, they remained unaware of the detailed procedures of the other arms."



11b) If relevant, description of the similarity of interventions



(this item is usually not relevant for ehealth trials as it refers to similarity of a placebo or sham intervention to a active medication/intervention)

#### Does your paper address CONSORT subitem 11b? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Not relevant.

12a) Statistical methods used to compare groups for primary and secondary outcomes



NPT: When applicable, details of whether and how the clustering by care providers or centers was addressed

#### Does your paper address CONSORT subitem 12a? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"For the primary outcome, we used a random effects mixed modeling approach using maximum likelihood estimation to provide estimates of differences in mean drinking levels between the EMI and no contact group between baseline and 12-week follow-up. In this model, we modeled study participants as random factors (ie, random intercept) and group allocation as a fixed factor. Our primary focus of analysis was the interaction between intervention and study time (baseline vs follow-up). As the sample distribution of participants' peak RSOD exhibited some evidence of positive skew, we estimated the natural log of the peak RSOD in mixed modeling analyses and reported geometric means. In addition, we used postestimation analyses to derive model marginal means and performed Wald tests for differences between partial interaction terms and their joint significance. Using nested mixed modeling for each group-by-time contrast, Cohen's f2 standardized effect sizes [38], which show the proportion of variance explained for a group, were derived from the decomposition of model residual error terms."

### 12a-i) Imputation techniques to deal with attrition / missing values

Imputation techniques to deal with attrition / missing values: Not all participants will use the intervention/comparator as intended and attrition is typically high in ehealth trials. Specify how participants who did not use the application or dropped out from the trial were treated in the statistical analysis (a complete case analysis is strongly discouraged, and simple imputation techniques such as LOCF may also be problematic [4]).



#### Does your paper address subitem 12a-i? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Maximum likelihood estimation in mixed modeling provided unbiased estimates in the light of study attrition assuming missingness takes a missing at random process [39]."



12b) Methods for additional analyses, such as subgroup analyses and adjusted analyses



#### Does your paper address CONSORT subitem 12b? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Not relevant.

X26) REB/IRB Approval and Ethical Considerations [recommended as subheading under "Methods"] (not a CONSORT item)



#### X26-i) Comment on ethics committee approval

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subitem not at	0	$\circ$	0	$\circ$	0	essentia

#### Does your paper address subitem X26-i?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"We obtained ethics approval for this RCT from the Monash University Human Research Ethics Committee (CF15/3600 - 2015001556). The Alfred Health Research Ethics Committee approved the YAAS cohort study (35/12)."



#### x26-ii) Outline informed consent procedures

Outline informed consent procedures e.g., if consent was obtained offline or online (how? Checkbox, etc.?), and what information was provided (see 4a-ii). See [6] for some items to be included in informed consent documents.

1 2 3 4 5

subitem not at all important O O O essential

#### Does your paper address subitem X26-ii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Participants were sent detailed information about their group's specific procedures and were asked to register to use the relevant intervention"



#### X26-iii) Safety and security procedures

Safety and security procedures, incl. privacy considerations, and any steps taken to reduce the likelihood or detection of harm (e.g., education and training, availability of a hotline)

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subitem not at all important O O O essential

#### Does your paper address subitem X26-iii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Not relevant.



13a) For each group, the numbers of participants who were randomly assigned, received intended treatment, and were analysed for the primary outcome

NPT: The number of care providers or centers performing the intervention in each group and

#### Does your paper address CONSORT subitem 13a? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Figure 1 presents the participants' flow. Of the original 802 YAAS participants, 373 completed wave 3 in 2015, which was fewer than anticipated. A total of 59 participants were ineligible for the trial either due to not drinking at risky levels (n=51) or not owning a smartphone (n=8). Of the 314 eligible participants, 269 participants agreed to be contacted about the trial and were randomized into 3 groups as follows: EMI (n=90); EMA (n=89); and no-contact control (n=90). Following receipt of the study information, 101 participants completed the online registration form (EMI=26, EMA=31, and no contact=44), falling short of our target of 300 participants [30].

13b) For each group, losses and exclusions after randomisation, together with reasons

### Does your paper address CONSORT subitem 13b? (NOTE: Preferably, this is shown in a CONSORT flow diagram) \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Following the 12-week study period, 87 participants could be contacted for the follow-up telephone survey. Furthermore, 2 participants were excluded from the primary outcome analysis as outliers (SD>3.29 from sample means; ie, P<.001) with respect to the peak RSOD measure."

#### 13b-i) Attrition diagram

Strongly recommended: An attrition diagram (e.g., proportion of participants still logging in or using the intervention/comparator in each group plotted over time, similar to a survival curve) or other figures or tables demonstrating usage/dose/engagement.

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subitem not at all important O O o essential

#### Does your paper address subitem 13b-i?

Copy and paste relevant sections from the manuscript or cite the figure number if applicable (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Figure shows.

14a) Dates defining the periods of recruitment and follow-up



#### Does your paper address CONSORT subitem 14a? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Outlined in protocol paper.

#### 14a-i) Indicate if critical "secular events" fell into the study period

Indicate if critical "secular events" fell into the study period, e.g., significant changes in Internet resources available or "changes in computer hardware or Internet delivery resources"

	1	2	3	4	5	
subitem not at all important	0	$\circ$	$\circ$	$\circ$	$\circ$	essential

#### Does your paper address subitem 14a-i?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Not relevant.

14b) Why the trial ended or was stopped (early)



#### Does your paper address CONSORT subitem 14b? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Not relevant.

### 15) A table showing baseline demographic and clinical characteristics for each group



NPT: When applicable, a description of care providers (case volume, qualification, expertise, etc.) and centers (volume) in each group

#### Does your paper address CONSORT subitem 15? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Shown in table 1

#### 15-i) Report demographics associated with digital divide issues

In ehealth trials it is particularly important to report demographics associated with digital divide issues, such as age, education, gender, social-economic status, computer/Internet/ehealth literacy of the participants, if known.

	1	2	3	4	5	
subitem not at all important	0	$\bigcirc$	$\circ$	$\circ$	$\circ$	essential

#### Does your paper address subitem 15-i? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

#### Reported in table 1

16) For each group, number of participants (denominator) included in each analysis and whether the analysis was by original assigned groups



#### 16-i) Report multiple "denominators" and provide definitions

Report multiple "denominators" and provide definitions: Report N's (and effect sizes) "across a range of study participation [and use] thresholds" [1], e.g., N exposed, N consented, N used more than x times, N used more than y weeks, N participants "used" the intervention/comparator at specific predefined time points of interest (in absolute and relative numbers per group). Always clearly define "use" of the intervention.

1 2 3 4 5

#### Does your paper address subitem 16-i? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

We were required to follow the analysis strategy outlined in our published protocol.

# •

#### 16-ii) Primary analysis should be intent-to-treat

Primary analysis should be intent-to-treat, secondary analyses could include comparing only "users", with the appropriate caveats that this is no longer a randomized sample (see 18-i).

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subitem not at all important O O O essential

#### Does your paper address subitem 16-ii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"We analyzed data from all participants who consented to participate in the trial and were randomized, regardless of their adherence to the planned intervention and participation in follow-up (ie, an intention-to-treat approach)."



17a) For each primary and secondary outcome, results for each group, and the estimated effect size and its precision (such as 95% confidence interval)

## Does your paper address CONSORT subitem 17a? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Presented in table 2

# 17a-i) Presentation of process outcomes such as metrics of use and intensity of use

In addition to primary/secondary (clinical) outcomes, the presentation of process outcomes such as metrics of use and intensity of use (dose, exposure) and their operational definitions is critical. This does not only refer to metrics of attrition (13-b) (often a binary variable), but also to more continuous exposure metrics such as "average session length". These must be accompanied by a technical description how a metric like a "session" is defined (e.g., timeout after idle time) [1] (report under item 6a).

	1	2	3	4	5	
subitem not at all important	0	$\circ$	0	0	$\circ$	essential

#### Does your paper address subitem 17a-i?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"For both EMI and EMA groups, 63% (36/57) of participants signed up for 6 or more events and the majority completed surveys for all 6 events (58% [15/26] of the EMI group and 57% [18/31] of the EMA group). EMI participants signed up for a mean of 4.8 events and completed a mean of 4.5 events. EMA participants signed up for a mean of 4.5 events and completed a mean of 4.2. A small number of participants neither signed up for any event (7%; 5/57) nor completed any EMA."

17b) For binary outcomes, presentation of both absolute and relative effect sizes is recommended

#### Does your paper address CONSORT subitem 17b? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Not relevant. Outcome not binary.

18) Results of any other analyses performed, including subgroup analyses and adjusted analyses, distinguishing prespecified from exploratory

#### Does your paper address CONSORT subitem 18? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Not relevant - no further analyses performed.

#### 18-i) Subgroup analysis of comparing only users

A subgroup analysis of comparing only users is not uncommon in ehealth trials, but if done, it must be stressed that this is a self-selected sample and no longer an unbiased sample from a randomized trial (see 16-iii).

1 2 3 4 5

subitem not at all important O O O essential

#### Does your paper address subitem 18-i?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Your answer

19) All important harms or unintended effects in each group



(for specific guidance see CONSORT for harms)

#### Does your paper address CONSORT subitem 19? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Only risk of harm is increased drinking - this was reported.

#### 19-i) Include privacy breaches, technical problems

Include privacy breaches, technical problems. This does not only include physical "harm" to participants, but also incidents such as perceived or real privacy breaches [1], technical problems, and other unexpected/unintended incidents. "Unintended effects" also includes unintended positive effects [2].

1 2 3 4 5

subitem not at

#### Does your paper address subitem 19-i?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

" Table

5 describes the nature and frequency of technical difficulties encountered during the study period."



# 19-ii) Include qualitative feedback from participants or observations from staff/researchers

Include qualitative feedback from participants or observations from staff/researchers, if available, on strengths and shortcomings of the application, especially if they point to unintended/unexpected effects or uses. This includes (if available) reasons for why people did or did not use the application as intended by the developers.

	1	2	3	4	5	
subitem not at all important	0	0	0	0	0	essential

#### Does your paper address subitem 19-ii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Not included.



22) Interpretation consistent with results, balancing benefits and harms, and considering other relevant evidence



NPT: In addition, take into account the choice of the comparator, lack of or partial blinding, and unequal expertise of care providers or centers in each group

# 22-i) Restate study questions and summarize the answers suggested by the data, starting with primary outcomes and process outcomes (use)

Restate study questions and summarize the answers suggested by the data, starting with primary outcomes and process outcomes (use).

1 2 3 4 5

subitem not at all important O O o essential

#### Does your paper address subitem 22-i? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"We tested a novel method to collect data and intervene repeatedly during drinking events. No statistically significant differences in peak RSOD or related harms were detected between the groups. Based on previous EMI and mobile phone-delivered BI studies [10,22,23,41,42], we expected to demonstrate a small but significant effect of our EMI on RSOD compared with our control group. Our development study suggested that our method was acceptable and feasible to participants and demonstrated high levels of engagement and low dropout rate when tested on a single occasion. This study's finding may be a result of low statistical power, meaning a larger sample is needed in future research to test the effects of our intervention."

# 22-ii) Highlight unanswered new questions, suggest future research

Highlight unanswered new questions, suggest future research.

1 2 3 4 5

subitem not at all important O O o essential

#### Does your paper address subitem 22-ii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"The greatest reductions in peak RSOD and alcohol-related harms compared with the no-contact group were observed in the assessment-only group (EMA). Based on previous EMA alcohol studies [7,12] we hypothesized that no reactivity would be observed in this group; however, it is plausible that questions about goal setting and planning in the first questionnaire per night had some intervention effect. These additional questions (recommended by participants in the co-design study for the purpose of message tailoring) require reflection and planning, such as in motivational interviewing therapies [28]. It is possible that responding to these questions could modify RSOD; if this is the case, then it is unknown why the EMA might be more effective without BI messages. The cause could be the specific content of our messages or that BIs were unhelpful in changing alcohol consumption behavior when delivered during drinking events. The latter explanation might be particularly relevant to heavy drinkers; previous research has shown that this population shows increased attentional biases that are thought to promote motivations for alcohol consumption and are resistant to manipulation "

20) Trial limitations, addressing sources of potential bias, imprecision, and, if relevant, multiplicity of analyses

## 20-i) Typical limitations in ehealth trials

Typical limitations in ehealth trials: Participants in ehealth trials are rarely blinded. Ehealth trials often look at a multiplicity of outcomes, increasing risk for a Type I error. Discuss biases due to non-use of the intervention/usability issues, biases through informed consent procedures, unexpected events.

1 2 3 4 5

subitem not at all important O O essential

#### Does your paper address subitem 20-i? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"This study has several limitations. First, we were unable to recruit the planned sample size; refusal data showed that a major reason was research fatigue due to participants' prior engagement with the YAAS cohort study. During the recruitment process, few potential participants reported refusal reasons related to intervention intensity or lack of interest; however, the differential recruitment rate between groups suggests that either the intervention lacked appeal or that the study information provided during the consent process was not clear or simple enough. Nonetheless, these findings will inform our future approaches to testing event-level data collection and interventions. Second, challenges related to technical difficulties interfered with the implementation of the EMA questionnaires and feedback messages. Thus, further refinement and testing will be undertaken. Finally, the study relied on self-reported data, which has the potential for reporting bias."

21) Generalisability (external validity, applicability) of the trial findings

NPT: External validity of the trial findings according to the intervention, comparators, patients, and care providers or centers involved in the trial

#### 21-i) Generalizability to other populations

Generalizability to other populations: In particular, discuss generalizability to a general Internet population, outside of a RCT setting, and general patient population, including applicability of the study results for other organizations

1 2 3 4 5

subitem not at all important O O O essential

### Does your paper address subitem 21-i?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

# 21-ii) Discuss if there were elements in the RCT that would be different in a routine application setting

Discuss if there were elements in the RCT that would be different in a routine application setting (e.g., prompts/reminders, more human involvement, training sessions or other co-interventions) and what impact the omission of these elements could have on use, adoption, or outcomes if the intervention is applied outside of a RCT setting.

1 2 3 4 5

subitem not at all important O O O essential

#### Does your paper address subitem 21-ii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

N/A

OTHER INFORMATION

23) Registration number and name of trial registry



## Does your paper address CONSORT subitem 23? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Australian New Zealand Clinical Trials Registration number ACTRN12616001323415;



https://www.anzctr.org.au/Trial/Registration/TrialReview.aspx?id=369534

24) Where the full trial protocol can be accessed, if available



## Does your paper address CONSORT subitem 24? \*

Cite a Multimedia Appendix, other reference, or copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Further details are reported in the published protocol [30] "

25) Sources of funding and other support (such as supply of drugs), role of funders

#### Does your paper address CONSORT subitem 25? \*

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"This study is funded by the Victorian Health Promotion Foundation (VicHealth) and Gandel Philanthropy, who did not have any input into the research design, implementation or analysis. CW is supported by an Australian Government Research Training Program Scholarship. PMD is supported by an NHMRC Senior Research Fellowship. MH is supported by an NHMRC Principal Research Fellowship. MSCL is supported by the Jim and Margaret Beever Fellowship from the Burnet Institute. ML is supported by an NHMRC Early Career Fellowship, and RR by a grant from the Foundation for Alcohol Research and Education. The authors gratefully acknowledge the Victorian Operational Infrastructure Support Program received by the Burnet Institute."

X27) Conflicts of Interest (not a CONSORT item)



## X27-i) State the relation of the study team towards the system being evaluated

In addition to the usual declaration of interests (financial or otherwise), also state the relation of the study team towards the system being evaluated, i.e., state if the authors/evaluators are distinct from or identical with the developers/sponsors of the intervention.

	1	2	3	4	5	
subitem not at all important	0	0	0	0	$\circ$	essential

#### Does your paper address subitem X27-i?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

#### "We contracted the

Social Research Centre (Melbourne, Australia) to recruit and interview participants. In addition, we purchased a standard license from SurveyGizmo to develop and host our EMA surveys. We contracted SurveySignal to develop and program the online module that sent all EMA SMS text messages, captured data, and sent feedback SMS text message."

About the CONSORT EHEALTH checklist



As a result of using this checklist, did you make changes in your manuscript? \*

- yes, major changes
- yes, minor changes

What were the most important changes you made as a result of using this checklist?

Your answer

How much time did you spend on going through the checklist INCLUDING making changes in your manuscript \*

2 hours

has improved? *	
O yes	
o no	
Other:	
Would you like to become involved in the CONSORT EHEALTH group?	
This would involve for example becoming involved in participating in a workshop and writing an "Explanation and Elaboration" document	
O yes	
o no	
Other:	
Any other comments or questions on CONSORT EHEALTH Your answer	
Your answer	
Your answer  STOP - Save this form as PDF before you click submit  To generate a record that you filled in this form, we recommend to generate a PDF of this	
Your answer  STOP - Save this form as PDF before you click submit  To generate a record that you filled in this form, we recommend to generate a PDF of this page (on a Mac, simply select "print" and then select "print as PDF") before you submit it.	
Your answer  STOP - Save this form as PDF before you click submit  To generate a record that you filled in this form, we recommend to generate a PDF of this page (on a Mac, simply select "print" and then select "print as PDF") before you submit it.  When you submit your (revised) paper to JMIR, please upload the PDF as supplementary file.  Don't worry if some text in the textboxes is cut off, as we still have the complete information	

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