

# 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

 rayner.tan@u.nus.edu (not shared) [Switch account](#)

 Draft saved

\* Required

Your name \*

First Last

Rayner Kay Jin Tan

Primary Affiliation (short), City, Country \*

University of Toronto, Toronto, Canada

National University of Singapore, Singapore, Si

Your e-mail address \*

[abc@gmail.com](mailto:abc@gmail.com)

rayner.tan@u.nus.edu

Title of your manuscript \*

Provide the (draft) title of your manuscript.

Effect of a popular web drama video series on HIV and other sexually transmitted infection testing among gay, bisexual and other men who have sex with men in Singapore: a community-based, pragmatic, randomized controlled trial amidst the COVID-19 pandemic



**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.

People Like Us

**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")

English

**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.

<https://www.gayhealth.sg/plu/season2/>

**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)"

HIV, Syphilis and Gonorrhoea/Chlamydia (Gay,

**Primary Outcomes measured in trial \***

comma-separated list of primary outcomes reported in the trial

HIV, Syphilis and Gonorrhoea/Chlamydia Testir

**Secondary/other outcomes**

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

HIV and other STI knowledge, connectedness to the LGBT community, self-concealment of sexual orientation, outness inventory, relevance of sexual orientation disclosure to sexual healthcare providers, perceived homophobia, internalized homophobia, HIV testing self-efficacy and HIV testing social norms



**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: Once-off, for six episodes

**Approx. Percentage of Users (starters) still using the app as recommended after 3 months \***

- unknown / not evaluated
- 0-10%
- 11-20%
- 21-30%
- 31-40%
- 41-50%
- 51-60%
- 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
- no statistically significant difference between control and intervention
- potentially harmful: control was significantly better than intervention in one 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)

- not 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
- published
- Other:



**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")

- not submitted yet / unclear where I will submit this
- 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
- 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)

- no ms number (yet) / not (yet) submitted to / published in JMIR
- Other: 31401

**TITLE AND ABSTRACT**

**1a) TITLE: Identification as a randomized trial in the title****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 "electronic" only if offline products are used. Use "virtual" only in the context of "virtual reality" (3-D 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.

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subitem not at all important                        essential

Clear selection

**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

Effect of a popular web drama video series on HIV and other sexually transmitted infection testing among gay, bisexual and other men who have sex with men in Singapore: a community-based, pragmatic, randomized controlled trial amidst the COVID-19 pandemic





**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").

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subitem not at all important                        essential

Clear selection

**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

Your answer

**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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subitem not at all important                        essential

Clear selection

**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

"Effect of a popular web drama video series on HIV and other sexually transmitted infection testing among gay, bisexual and other men who have sex with men in Singapore: a community-based, pragmatic, randomized controlled trial amidst the COVID-19 pandemic"



## 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/functionality/components of the intervention and comparator in the METHODS section of the ABSTRACT

Mention key features/functionality/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)

subitem not at all important    1    2    3    4    5    essential

              

Clear selection

### 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 study is a pragmatic, randomized controlled trial to evaluate a popular web drama video series developed by a community-based organization in Singapore for GBMSM."

### 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)

subitem not at all important    1    2    3    4    5    essential

              

Clear selection



### 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

Your answer

### 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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subitem not at all important                        essential

Clear selection

### 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

"The study is a pragmatic, randomized controlled trial to evaluate a popular web drama video series developed by a community-based organization in Singapore for GBMSM. A total of 300 HIV-negative, GBMSM men in Singapore aged 18 to 29 years old were recruited and block-randomized into the intervention (n=150) and control arms (n=150). Primary outcomes included changes in self-reported intention to test for, actual testing for, and regularity of testing for HIV, Syphilis, Chlamydia or Gonorrhoea, while secondary outcomes include changes in a variety of other knowledge-based and psychosocial measures at the end of the study period."



**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)

subitem not at all important      1      2      3      4      5      essential

                      

Clear selection

**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

"Overall, 125 out of 150 participants (83.3%) in the intervention arm completed the proof of completion survey, compared to 133 out of 150 participants (88.7%) in the control arm."

**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)

subitem not at all important      1      2      3      4      5      essential

                      

**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

Your answer



## 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 stand-alone 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)

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subitem not at all important                        essential

Clear selection

#### 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

Rates of HIV testing have also remained suboptimal among GBMSM in Southeast Asia. A study among young GBMSM in the Association of Southeast Asian Nations countries in 2015 found that 29.9% of participants had never had an HIV test, and these were more likely to be among younger GBMSM [1]. Unwillingness to know about their HIV status, the fear of a positive result, and low perceived risk of HIV acquisition were factors found to be associated with lower rates of HIV testing among young GBMSM [2, 3]. In Singapore, most individuals who test for HIV only do so through the course of medical care or through routine programmatic HIV screening, with only about 16.0% of the incident HIV cases in 2019 being diagnosed through voluntary screening. While a higher proportion (25.0%) of GBMSM tested through voluntary screening compared to heterosexual men (5.0%), diagnosis through voluntary screening remains suboptimal [4].



**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 appropriate), 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                        essential

Clear selection

**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

In general, there exist numerous types of interventions that aim to increase HIV testing among GBMSM. These interventions range from those that utilize aspects of peer education, outreach through social media, reminder-based systems, video-based interventions and national social marketing campaigns. Social marketing campaigns have largely been promoted on a broader scale in cities or settings where GBMSM reside [5-9], while reminder-based interventions have typically been implemented among GBMSM at sexual health clinics [10-12]. With the advent of geosocial networking smartphone applications, many interventions and campaigns now use key websites and mobile phone apps identified to be frequented by GBMSM for interventions as well [13-19].

**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

Given the gap in such research in Southeast Asia, the present study sought to evaluate the effectiveness of a novel web drama series in achieving positive HIV/STI testing-related outcomes for young GBMSM. The videos used in the study forms the second season of an educational and web drama miniseries, People Like Us (PLU), developed by gayhealth.sg and Action for AIDS (AFA) in 2018 (<https://www.gayhealth.sg/plu/>). The first season of the miniseries was screened as a total of 10 film festivals, and won several independent film awards. It had also garnered more than 1.7 million views across various social media platforms since its launch in 2016. In spite of its popularity, little has been done to assess its effectiveness in positively impacting HIV and other STI testing-related outcomes. Such popular online video interventions, which have been proven to be popular and easily accessible, may complement structural interventions and allow access to underserved or hard-to-reach subgroups of GBMSM.

**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

"This is a pragmatic, parallel group, randomised controlled trial to evaluate the efficacy of a web drama series, developed by a community-based organisation in Singapore, in increasing an individual's intention to test, self-reported testing behaviors, and self-reported regularity of testing behaviors for HIV, Syphilis, as well as other common sexually transmitted infection such as Gonorrhoea or Chlamydia. [...] Details of the intervention and the study procedures have been reported elsewhere in detail [24]. [...] Upon completion of the baseline survey, participants were then randomly assigned in blocks of six in a 1:1 ratio to the intervention condition or the control condition."

**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

No changes were made to methods following trial 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].

subitem not at all important      1      2      3      4      5      essential

                      

Clear selection

**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

Your answer

**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

"Inclusion criteria for participants in this study include self-reporting at the point of recruitment (i) an HIV-negative status, or being unsure of one's HIV status; (ii) being gay, bisexual or queer with regard to sexual orientation; (iii) being of male gender, regardless of sex assigned at birth; (iv) being 18 to 29 years old; (v) being a Singapore citizen or permanent resident; (vi) and having never watched an online video drama series by Gayhealth.sg or AFA in the last year."

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

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

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subitem not at all important                        essential

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**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

As participants were enrolled through an online survey, it was assumed that participants had a sufficient level of computer/internet literacy



#### 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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#### 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

All procedures mentioned in the manuscript were conducted online - this is an online-only trial that required self-reports of testing behaviors (that may have been done offline)

#### 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                        essential

Clear selection



### 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

"In brief, participants were recruited with the help of AFA and were screened for eligibility through a short online survey. Throughout the entire survey process, personal identifiers were never directly linked to survey results, so as to protect the participants from potential criminal implications of disclosing their sexual activities with other men and other behaviors such as substance use. Upon completion of the enrolment survey and verification of eligibility, a staff member at AFA contacted eligible respondents to provide them with their participant identification number (ID), and formally invited them to participate in the study through the completion of the first online baseline survey. Respondents provided written consent for participation through an online participant information sheet prior to participating in the study."

### 4b) Settings and locations where the data were collected

### 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

"In brief, participants were recruited with the help of AFA and were screened for eligibility through a short online survey. Throughout the entire survey process, personal identifiers were never directly linked to survey results, so as to protect the participants from potential criminal implications of disclosing their sexual activities with other men and other behaviors such as substance use. Upon completion of the enrolment survey and verification of eligibility, a staff member at AFA contacted eligible respondents to provide them with their participant identification number (ID), and formally invited them to participate in the study through the completion of the first online baseline survey. Respondents provided written consent for participation through an online participant information sheet prior to participating in the study. This survey was hosted on an encrypted, online survey administration website and took about 15 to 20 minutes to complete, and participants were reimbursed SGD15.00 (~USD10.84) for their time."



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

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

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subitem not at all important                        essential

Clear selection

### 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

"Upon completion of the enrolment survey and verification of eligibility, a staff member at AFA contacted eligible respondents to provide them with their participant identification number (ID), and formally invited them to participate in the study through the completion of the first online baseline survey. Respondents provided written consent for participation through an online participant information sheet prior to participating in the study. This survey was hosted on an encrypted, online survey administration website and took about 15 to 20 minutes to complete, and participants were reimbursed SGD15.00 (~USD10.84) for their time. [...] At the 3-month and 6-month follow-up from the baseline, AFA contacted all eligible participants to continue with their follow-up surveys. Like the baseline survey, the second and third surveys were hosted on a survey administration website and took about 15 to 20 minutes to complete. Participants received SGD15.00 (~USD10.84) reimbursement for the completion of each survey."

### 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)

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subitem not at all important                        essential

Clear selection



### 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

This intervention was developed by a community group and therefore its affiliation with the group was clear - the study was conducted in collaboration with the National University of Singapore and this was all made known to participants via the participant information sheet and enrollment links: "Upon completion of the enrolment survey and verification of eligibility, a staff member at AFA contacted eligible respondents to provide them with their participant identification number (ID), and formally invited them to participate in the study through the completion of the first online baseline survey. Respondents provided written consent for participation through an online participant information sheet prior to participating in the 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                        essential

Clear selection

### 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

We have declared all funders and collaborators in the manuscript



### 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                        essential

Clear selection

### 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

A **protocol** manuscript detailing the development of the intervention has been published previously: "Details of the intervention and the study procedures have been reported elsewhere in detail [24]."

### 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).

1      2      3      4      5

subitem not at all important                        essential

Clear selection

### 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

No revisions were made to the intervention



### 5-iv) Quality assurance methods

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

	1	2	3	4	5	
subitem not at all important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	essential

Clear selection

### 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

Specific questions were asked about the intervention content to ensure participants had watched the intervention "All participants received their assigned conditions within one week after completing the baseline survey, and were asked to complete a quiz one week after assignment to ascertain if participants had watched the online series of six videos and/or read the sexual health pamphlet. Participants received a SGD20.00 (~USD14.45) reimbursement following the completion of the quiz"

### 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	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	essential

Clear selection



### 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

Not relevant to the study

### 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, [webcitation.org](http://www.webcitation.org), 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.

subitem not at all important    1    2    3    4    5    essential

              

Clear selection

### 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

The intervention is available open source and open access online

### 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).

subitem not at all important    1    2    3    4    5    essential

              

Clear selection





### 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 directly provided with a link to the video files of the intervention: "All participants received their assigned conditions within one week after completing the baseline survey, and were asked to complete a quiz one week after assignment to ascertain if participants had watched the online series of six videos and/or read the sexual health pamphlet. Participants received a SGD20.00 (~USD14.45) reimbursement following the completion of the quiz"

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

Describe mode of delivery, features/functionality/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].

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subitem not at all important                        essential

Clear selection

### 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

A **protocol** manuscript detailing the development of the intervention has been published previously: "Details of the intervention and the study procedures have been reported elsewhere in detail [24]."



### 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.

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subitem not at all important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	essential

Clear selection

### 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

“Individuals who were assigned to the intervention condition were given a link to a series of six online videos, each about 10 minutes in duration, from the PLU web drama series, along with a link to an English-language online sexual health pamphlet tailored for GBMSM in Singapore. Individuals who were assigned to the control condition were scheduled to receive a link to the same online sexual health pamphlet as the standard of care for GBMSM at risk of acquiring HIV and other STI in Singapore. All participants received their assigned conditions within one week after completing the baseline survey, and were asked to complete a quiz one week after assignment to ascertain if participants had watched the online series of six videos and/or read the sexual health pamphlet.”

### 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	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	essential

Clear selection



### 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

Participants completed the intervention on their own without technical assistance

### 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).

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subitem not at all important                        essential

Clear selection

### 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 emailed to complete the assigned condition within 1 week of completing the baseline survey; participants were also emailed to complete their 3-month follow-up survey and 6-month follow-up survey.



**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 all important                        essential

Clear selection

**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

No co-interventions were designed and/or implemented

**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

These have been detailed in primary and secondary outcome measure subsections



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 all important      essential

Clear selection

Does your paper address subitem 6a-i?

Copy and paste relevant sections from manuscript text

Yes. Survey design and IRB reference numbers are provided in the manuscript. Surveys were hosted online but were shared solely with participants, who entered unique ID numbers. Validated questionnaires/indices were also detailed in the manuscript

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.

1 2 3 4 5

subitem not at all important      essential

Clear selection

Does your paper address subitem 6a-ii?

Copy and paste relevant sections from manuscript text

Participants needed to complete the whole intervention and a completion quiz as proof of completion before being sent follow-up surveys and continuing with the study.



### 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).

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subitem not at all important                        essential

Clear selection

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

Copy and paste relevant sections from manuscript text

Your answer

### 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

No changes were made to trial outcomes after the trial commenced

### 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.

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subitem not at all important                        essential

Clear selection

### 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

"As the primary outcome of interest included HIV or other STI testing in the last 3 months, we utilized data from a previous study among 1,098 GBMSM recruited through Grindr, the popular geosocial networking app [22, 31]. The study found that 50.4% of respondents reported having had a recent HIV test in the 6 months prior to the survey. Assuming a 50% increase in recent HIV testing as a result of the intervention, as data from previous studies based on the impact such a web drama series on recent HIV testing remains limited [32], a sample size of 112 in each arm will yield statistical power higher than 80% to detect a significant change for the intervention, based on calculations generated by a web-based software (<http://www.clinicalcalc.com>). A target sample size of 150 participants per group was proposed to account for an attrition of 25% for each group across the 6-month follow up."

### 7b) When applicable, explanation of any interim analyses and stopping guidelines

#### 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 interim analyses were conducted and trial had no stopping guidelines



**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

We used an online generator (<https://www.sealedenvelope.com/>) to randomize our participants to a 1:1 ratio - details have been reported in our 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

"Upon completion of the baseline survey, participants were then randomly assigned in blocks of six in a 1:1 ratio to the intervention condition or the control condition"

**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

"Upon completion of the baseline survey, participants were then randomly assigned in blocks of six in a 1:1 ratio to the intervention condition or the control condition. Individuals who were assigned to the intervention condition were given a link to a series of six online videos, each about 10 minutes in duration, from the PLU web drama series, along with a link to an English-language online sexual health pamphlet tailored for GBMSM in Singapore. Individuals who were assigned to the control condition were scheduled to receive a link to the same online sexual health pamphlet as the standard of care for GBMSM at risk of acquiring HIV and other STI in Singapore. All participants received their assigned conditions within one week after completing the baseline survey, and were asked to complete a quiz one week after assignment to ascertain if participants had watched the online series of six videos and/or read the sexual health pamphlet. "

**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

The principal investigator generated the random allocation sequence and assigned these to participants by unique ID numbers. Members of the community group enrolled participants.

**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                        essential

Clear selection

### 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

No blinding was done in this study

### 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                        essential

Clear selection

### 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

Participants were made aware of this via the participant information sheet



**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

This is not relevant as the comparator was different in nature to the intervention

**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

"The baseline sociodemographic characteristics and primary outcome variables in the intervention and control groups were compared and any between-group differences were determined through chi-squared tests. Intervention efficacy was analyzed over the entire study period (from baseline to the 6-month assessment) via chi-squared tests for primary outcomes, and additional t-tests and Wilcoxon Rank-Sum tests for secondary outcomes with continuous variables. All analyses were evaluated based on the principle of Intention To Treat (ITT), assuming a two-sided test at the 5% level of significance. using the statistical software STATA version 15 (Stata Corp, College Station, TX, USA)."



### 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]).

subitem not at all important      1      2      3      4      5      essential

                      

Clear selection

### 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

"All analyses were evaluated based on the principle of Intention To Treat (ITT), assuming a two-sided test at the 5% level of significance. using the statistical software STATA version 15 (Stata Corp, College Station, TX, USA)."

### 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

No subgroup analyses were conducted for the trial

### 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 all important                        essential

Clear selection

### 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

Details have been provided in the **protocol paper**

### 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.

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subitem not at all important                        essential

Clear selection

### 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

Details have been provided in the **protocol paper**



### 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                        essential

Clear selection

### 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

Details have been provided in the **protocol** paper

## RESULTS

### 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 the number of patients treated by each care provider in each center



**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

"Overall, 777 participants were assessed for eligibility. However, a total of 482 participants were invited to participate to complete the baseline survey as 179 participants did not provide any contact details for follow-up, while 116 of them did not meet the eligibility criteria of being of male gender, identifying as gay, bisexual or queer, as well as self-reporting as being HIV-negative. Overall, 125 out of 150 participants (83.3%) in the intervention arm completed the proof of completion survey, compared to 133 out of 150 participants (88.7%) in the control arm. Further, at the first follow-up at 3-month, 10 of 125 participants (8.0%) in the intervention arm and 7 out of 133 participants (5.3%) in the control arm were lost to follow-up; and at the second follow-up at 6-month, 6 out of 115 participants (5.2%) in the intervention arm and 3 out of 126 participants (2.4%) in the control arm were lost to follow-up. Overall cumulative attrition rates reported for the intervention and control arms were 27.3% and 18.0%, respectively. The CONSORT diagram for the study is summarized in Figure 1."

**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

These were included in the CONSORT flow diagram

**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                        essential

Clear selection



### 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

These were included in the CONSORT flow diagram

### 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

These were included in the CONSORT flow diagram

#### 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"

subitem not at all important      1      2      3      4      5      essential

                      

Clear selection

### 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

We have detailed how the COVID-19 pandemic had impacted our trial via supplemental material





## 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

This did not occur in our trial

## 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

This has been provided 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.

subitem not at all important      1      2      3      4      5      essential

                      

Clear selection



**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

All participants were assumed to have a reasonable level of internet/computer literacy

**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 pre-defined time points of interest (in absolute and relative numbers per group). Always clearly define "use" of the intervention.

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subitem not at all important                        essential

Clear selection

**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

These were included in the respective tables and result sections



**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).

1      2      3      4      5

subitem not at all important                        essential

Clear selection

**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

Our analysis employed intention to treat analysis

**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

These have been reported in the respective tables



### 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                        essential

Clear selection

### 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

This was less important as we required participants to complete the full intervention to proceed in the study

### 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

This has been reported in our respective tables

### 18) Results of any other analyses performed, including subgroup analyses and adjusted analyses, distinguishing pre-specified 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

No other analyses were conducted

**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).

subitem not at all important      1      2      3      4      5      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

We did not observe any harms or unintended effects in each group based on our results



### 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 all important                  essential

Clear selection

### 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

We did not observe any harms or unintended effects in each group based on our results

### 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                  essential

Clear selection

### 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

We did not conduct any qualitative process evaluation procedures for this trial study



## DISCUSSION

### 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                        essential

Clear selection

#### 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

"This study was a pragmatic, community-based, randomized controlled-trial on the effectiveness of the second season of the PLU web drama series. We found that the web drama series, coupled with sexual health information provided through a pamphlet, was more effective in promoting participants' self-reported intentions to test regularly (at least yearly) for chlamydia or gonorrhoea, as well as intentions to test for HIV and other STI, compared to the control condition that involved the availability of the pamphlet only. The intervention was developed to increase viewers' knowledge and perceptions of HIV and other STI risk, address homophobia and sexual orientation disclosure, increase safer-sex negotiation self-efficacy, promote positive attitudes towards condom use and other safe sex behaviors, build skills and self-efficacy for practicing safer sex, provide information on HIV and other STI testing and its benefits, provide information on resources for HIV and other STI testing and other mental health services, and model appropriate behaviors around practicing safer sex. As such, we hypothesized that the intervention would be more effective than traditional sexual health pamphlets in positively impacting a range of primary outcomes around HIV and other STI testing, as well as secondary outcomes around HIV and other STI risk, safer sex, homophobia, HIV testing self-efficacy and social norms."



**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                        essential

Clear selection

**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

"Future trials and interventions should focus on addressing the limitations of the present study. First, by providing free, clinic-based testing as outcomes for the trial to simultaneously address issues of structural barriers as well as limitations in outcome measurement. Second, by restructuring the intervention to provide more complex, internet-based components such as online workshops, online counselling, or online peer support structures that may directly address the more complex, secondary outcomes of the study."

**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                        essential

Clear selection





**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

"On the other hand, we are also mindful of several limitations in this trial. First, given the pragmatic nature of the trial, we could not control for external situations such as the COVID-19 pandemic. As such, several aspects of the trial could not be evaluated in a manner that it was intended, and effects of the intervention may be underestimated in several respects. Second, contamination was also a potential issue, where we also found that at the end of the trial, a total of 17 participants out of 123 (13.8%) who remained in the control arm had ever seen the PLU season two series in spite of the initial screening question. However, intention-to-treat analysis was conducted, thus reducing the risk of overstating the effectiveness of the trial. Furthermore, given that most video-based interventions have shown to largely influence short-term health behavior change rather than sustained, long-term behaviors [40], the potential decay and wash-out period for the intervention among these participants is less likely to have a significant impact on the study results. Third, given the resource limitations of this study, we were not able to ascertain actual behaviors for HIV and other STI testing among participants through clinic attendance, and such measures were instead self-reported; however, we believe that the impact of any recall bias may have been minimal due to the introduction of the three-month follow-up period between the pre- (baseline) and post-intervention time points (six-month follow up). Lastly, a formal process evaluation of the trial was not conducted due to a lack of resources, and thus we were not able to generate deeper insight into issues of implementation fidelity of the trial. Nevertheless, this trial was conducted through a pilot study grant, and would help to better inform future process evaluation efforts on larger trial studies that are similar in design. The pragmatic nature of the trial also meant that the trial was conducted in a community-based setting, and subject to broader changes in the context in which it was rolled out. However, it was also during this time that the Coronavirus Disease 2019 (COVID-19) started to take its hold as a pandemic, with the first case reported in Singapore on 23 January 2020. Further details on how this may have impacted the trial may be found in the Supplementary Material (See Supplementary Figure 1 and Supplementary Table 1 with explanatory notes)."

**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                        essential

Clear selection

### 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

On the other hand, we are also mindful of several limitations in this trial. First, given the pragmatic nature of the trial, we could not control for external situations such as the COVID-19 pandemic. As such, several aspects of the trial could not be evaluated in a manner that it was intended, and effects of the intervention may be underestimated in several respects. Second, contamination was also a potential issue, where we also found that at the end of the trial, a total of 17 participants out of 123 (13.8%) who remained in the control arm had ever seen the PLU season two series in spite of the initial screening question. However, intention-to-treat analysis was conducted, thus reducing the risk of overstating the effectiveness of the trial. Furthermore, given that most video-based interventions have shown to largely influence short-term health behavior change rather than sustained, long-term behaviors [40], the potential decay and wash-out period for the intervention among these participants is less likely to have a significant impact on the study results. Third, given the resource limitations of this study, we were not able to ascertain actual behaviors for HIV and other STI testing among participants through clinic attendance, and such measures were instead self-reported; however, we believe that the impact of any recall bias may have been minimal due to the introduction of the three-month follow-up period between the pre-(baseline) and post-intervention time points (six-month follow up). Lastly, a formal process evaluation of the trial was not conducted due to a lack of resources, and thus we were not able to generate deeper insight into issues of implementation fidelity of the trial.

Nevertheless, this trial was conducted through a pilot study grant, and would help to better inform future process evaluation efforts on larger trial studies that are similar in design. The pragmatic nature of the trial also meant that the trial was conducted in a community-based setting, and subject to broader changes in the context in which it was rolled out. However, it was also during this time that the Coronavirus Disease 2019 (COVID-19) started to take its hold as a pandemic, with the first case reported in Singapore on 23 January 2020. Further details on how this may have impacted the trial may be found in the Supplementary Material (See Supplementary Figure 1 and Supplementary Table 1 with explanatory notes).



### 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.

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subitem not at all important                        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

Your answer

### 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

A protocol manuscript detailing the registration number and name of trial registry been published previously: "Details of the intervention and the study procedures have been reported elsewhere in detail [24]."

### 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

A protocol manuscript detailing the development of the intervention has been published previously: "Details of the intervention and the study procedures have been reported elsewhere in detail [24]."

**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

A protocol manuscript detailing funders and their role in the study has been published previously: "Details of the intervention and the study procedures have been reported elsewhere in detail [24]."

**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                        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

Your answer

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

- yes, major changes
- yes, minor changes
- no

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 \*

Two hours to go through the checklist; no changes made to the manuscript



As a result of using this checklist, do you think your manuscript has improved? \*

- yes
- no
- Other:

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This would involve for example becoming involved in participating in a workshop and writing an "Explanation and Elaboration" document

- yes
- no
- Other:

Clear selection

Any other comments or questions on CONSORT EHEALTH

Your answer

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