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

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

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

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

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

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

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

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

Mandatory reporting items are marked with a red \*.

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

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

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

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

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

Citation Suggestion (if you append the pdf as Appendix we suggest to cite this paper in the caption):

Eysenbach G, CONSORT-EHEALTH Group

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

**Health Interventions** 

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

doi: 10.2196/jmir.1923 PMID: 22209829

\* Required

#### Your name \*

First Last

**Corneel Vandelanotte** 

#### Primary Affiliation (short), City, Country \*

University of Toronto, Toronto, Canada

Rockhampton, Australia

#### Your e-mail address \*

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c.vandelanotte@cqu.edu.au

#### Title of your manuscript \*

Provide the (draft) title of your manuscript.

The effectiveness of a web-based computer-tailored physical activity intervention using Fitbit activity trackers: a randomised trial

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

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

TaylorTrack

#### **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.

http://www.tayloractive.org.au

URL of an image/screenshot (optional)

Accessibility * Can an enduser access the intervention presently?	
access is free and open	
<ul><li>access only for special usergroups, not open</li></ul>	
access is open to everyone, but requires payment/subscript purchases	ion/in-app
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)"

Inactive people that are able to become

#### Primary Outcomes measured in trial \*

comma-separated list of primary outcomes reported in the trial

physical activity

#### Secondary/other outcomes

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

Sitting time; BMI

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: A minimum of 8 occasions over a 3-month period								
Approx. Percentage of Users (starters) still using the app as recommended after 3 months *								
unknown / not evaluated								
0-10%								
11-20%								
<ul><li>21-30%</li></ul>								
31-40%								
41-50%								
51-60%								
O 61-70%								
71%-80%								
81-90%								
91-100%								
Other:								

Other:

Ov	erall, was the app/intervention effective? *
•	yes: all primary outcomes were significantly better in intervention group vs control
0	partly: SOME primary outcomes were significantly better in intervention group vs control
0	no statistically significant difference between control and intervention
0	potentially harmful: control was significantly better than intervention in one or more outcomes
0	inconclusive: more research is needed
0	Other:
	ticle Preparation Status/Stage * hich stage in your article preparation are you currently (at the time you fill in this form)
0	not submitted yet - in early draft status
•	not submitted yet - in late draft status, just before submission
0	submitted to a journal but not reviewed yet
0	submitted to a journal and after receiving initial reviewer comments
0	submitted to a journal and accepted, but not published yet
$\bigcirc$	published

Journal *  If you already know where you will submit this paper (or if it is already submitted), please provide the journal name (if it is not JMIR, provide the journal name under "other")
onot submitted yet / unclear where I will submit this
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

### TITLE AND ABSTRACT

### 1a) TITLE: Identification as a randomized trial in the title



#### 1a) Does your paper address CONSORT item 1a? \*

I.e does	s the title contair	the phrase "	Randomized (	Controlled <sup>-</sup>	Trial"? (if not,	explain the	reason u	nder
"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.

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

#### 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

a randomised trial

### 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").

1 2 3 4 5

subitem not at all important O O O essential

#### 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

1 2 3 4 5

subitem not at all important O O O essential

#### 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

N/A

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

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

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

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

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

#### 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

Participants received the three-month TaylorActive intervention, which included eight modules of theory-based, personally-tailored physical activity advice and action planning. Participants were randomised to receive the same intervention either with or without Fitbit tracker integration. All intervention materials were delivered online and there was no face-to-face contact at any time-point.

### 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)

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

#### 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)

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

#### 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

Your answer

#### 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)

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

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

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

Your answer

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

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

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



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

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

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

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

#### 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

Regular physical activity is recommended to reduce the risk of developing of chronic disease (e.g., diabetes, cardiovascular disease, cancer), mental health problems, mortality and morbidity [1,2]. Unfortunately, in Australia, and in most other developed and developing nations, the majority of the population is not meeting the physical activity recommendations [1,3]. This causes a large burden of disease, reduced quality of life and high health care costs [2,4].

Therefore, the objective of this study was to examine whether a web-based computer-tailored intervention using Fitbit activity trackers to generate personalised feedback is more effective in increasing physical activity and engaging participants compared to a computer-tailored intervention using traditional self-reports in a 2-group randomised trial.

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

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

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

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

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

As such, there is scope to improve the effectiveness of computer-tailored interventions. An important limitation is that they depend on online self-report physical activity measures to generate personalised advice. It is well-known that many people overestimate their self-reported activity levels by a large margin [9]. For example, an Australian study showed that 24% of the general population (and up to 58% in certain subgroups) over-reported their activity levels [9]. Inaccurate self-reported physical activity can lead to participants being provided with incorrect advice [10]. For example, due to over-reporting, someone may receive the message that they are meeting the activity guidelines and do not need to become more active, when this is actually not the case. When this happens, the intervention is not providing accurate and credible advice to participants and will therefore not be as effective as it could be [10,11]. Hence, new techniques to increase the effectiveness of computer-tailored interventions are needed.

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

Therefore, the objective of this study was to examine whether a web-based computer-tailored intervention using Fitbit activity trackers to generate personalised feedback is more effective in increasing physical activity and engaging participants compared to a computer-tailored intervention using traditional self-reports in a 2-group randomised trial.



### 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

After completing baseline assessments, participants were randomised into one of two groups in a ratio of 1:1 using a random list generator (www.randomisation.com), and provided with access to the TaylorActive intervention (see 'intervention' section below). All participants received access to the TaylorActive intervention, however only one group (the 'Fitbit' group) received a Fitbit activity tracker to monitor physical activity objectively, and the other group (the 'Non-Fitbit' group) did not.

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

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

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

N/A

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

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

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

#### 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

Eligible participants were 18 years of age or older, living in Australia, had a smartphone and computer with internet access, scored 2 or more out of 5 on the Internet Self-Confidence Scale [16], able to speak and read English, had a BMI between 25 and 40, engaged in less than 150 minutes/week of moderate to vigorous physical activity [17,18], had no prior experience in using an activity tracker, had not participated in a physical activity intervention within the last 12-months, and were able to safely increase physical activity assessed through the Physical Activity Readiness Questionnaire (PARQ) [19]. Those not meeting PARQ standards were instructed to obtain medical clearance before participation was allowed.

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

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

	Ί	2	3	4	5	
subitem not at all important	0	$\bigcirc$	$\circ$	$\circ$	$\circ$	essentia

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

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

Your answer

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

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

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

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

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

Participants were recruited across Australia using random digit dialling (conducted by the Population Research Lab at CQUniversity) and e-mail lists (i.e., old 10,000 Steps members, CQUni Alumni). Those interested were directed to a landing page on the intervention website to complete a screening-tool that determined eligibility.

There was no face-to-face contact with participants throughout the entire duration of this study; all procedures were online, via phone or postal mail.

#### 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.

1 2 3 4 5

subitem not at all important O O O essential

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

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

Your answer

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

There was no face-to-face contact with participants throughout the entire duration of this study; all procedures were online, via phone or postal mail.

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

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

1 2 3 4 5

subitem not at all important O O O essential

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

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

After completing the online screening-tool, eligible participants completed online baseline surveys (see 'measures' section below).

There was no face-to-face contact with participants throughout the entire duration of this study; all procedures were online, via phone or postal mail.

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

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

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

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

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

Your answer

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).

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

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

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

Your answer

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

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

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

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

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

#### 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	0	$\circ$	$\circ$	$\circ$	$\circ$	essential

#### 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

Your answer

#### 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	0	0	0	$\circ$	$\circ$	essential

#### 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

## 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.

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

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

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

Your answer

#### 5-vi) Digital preservation

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

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

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

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

#### 5-vii) Access

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

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

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

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

After completing baseline assessments, participants were randomised into one of two groups in a ratio of 1:1 using a random list generator (www.randomisation.com), and provided with access to the TaylorActive intervention (see 'intervention' section below). All participants received access to the TaylorActive intervention, however only one group (the 'Fitbit' group) received a Fitbit activity tracker to monitor physical activity objectively, and the other group (the 'Non-Fitbit' group) did not.

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

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

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

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

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

Participants in both groups received access to a computer-tailored physical activity intervention named TaylorActive [20]. The behaviour change content of this intervention was developed in line with the Theory of Planned Behaviour [21], Self-Determination Theory [22], and Social Cognitive Theory [23]. Specifically, content was focussed on enhancing intrinsic motivation, self-efficacy, and intentions for increasing activity levels. Additionally, training was provided on self-regulatory strategies to enhance the enactment of intentions into behaviour through effective goal-setting, action planning, use of social support, overcoming barriers, problem solving, decision making, relapse prevention, and self-monitoring. [21-23].

Based on short online surveys, participants in both groups were provided with behaviour change content across 8 modules of personal physical activity advice delivered over a 3-month period. The first 4 modules were delivered weekly; the next 4 modules were delivered every 14 days. The 8 modules were organised in a set order and the 'next' module could only be accessed when the previous module was completed. All modules were released at a set time point based on participants' study start date. If participants did not access newly available modules, they received up to 3 reminder e-mails and up to 2 phone calls from project staff. To generate the personalised module content in the non-Fitbit group, participants were asked questions about how active they have been the previous week in conjunction with questions relating to individual, social, environmental and theory-based correlates of physical activity behaviour. Based on the answers of participants, and through applying IF-THEN algorithms, personally relevant physical activity content was automatically selected from a database. In the first session participants were asked to select their preference of one of five motivations to be physically active: 1) to improve or maintain good health, 2) to increase fitness, 3) to increase strength, 4) to lose weight, 5) to feel better (improve mood and/or reduce stress). The feedback and physical activity goals were tailored according to participants' preferred motivation.

The only difference between groups was on how physical activity was assessed in order to provide personalised advice for the 8 modules. In the 'non-Fitbit' aroup, participants completed an adapted version of the 'Godin-Shephard

Leisure-time Exercise Questionnaire' at the start of each module [24]. In the 'Fitbit' group, physical activity was assessed using a Fitbit Flex (this device does not have a display other than 5 tiny LEDs; one LED illuminates for every 2000 steps taken). Participants only needed to click one button on the TaylorActive website at the start of each module to import physical activity data collected using the Fitbit. The physical activity advice was structured in the same way for both groups, as equivalent variables were extracted from both assessment methods (light, moderate, vigorous and total physical activity).

Participants in both groups also had access to a 'Library' with generic educational information about physical activity; a total of 19 brief articles were available about different aspects of physical activity and what to do to increase physical activity levels (e.g., 'Are you physically fit?', 'Getting motivated', 'Making time to be active'). Finally, participants in both groups were encouraged to complete an action plan at the end of each module [20]. Action plans are a self-regulation strategy in the form of a setting up a detailed plan that can lead to better goal attainment and help in behaviour modification [25]. Practically, it meant that participants were asked very specific questions on how they would meet their activity goals: what activity they would do, where they would do it, when they would do it, how often they would do it, how long will each activity session be, and with whom they would do it. At the start of creating an action plan, participants were asked to set long-, medium- and short-term goals to reach their physical activity objectives.

#### 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.

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

#### 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

Your answer

#### 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).

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

#### 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

Your answer

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

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

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

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

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

All modules were released at a set time point based on participants' study start date. If participants did not access newly available modules, they received up to 3 reminder e-mails and up to 2 phone calls from project staff.

#### 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	0	0	0	$\circ$	0	essential

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

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

N/A

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

After completing the online screening-tool, eligible participants completed online baseline surveys (see 'measures' section below).

Follow-up measures were assessed 1 and 3 months' post-baseline.

Basic demographic factors were assessed: sex, age, years of education, income ( $\leq$  \$51,999 AUD; \$52,000- \$99,999 AUD;  $\geq$  \$100,000 AUD; don't know/no response), employment status (full-time, part-time/casual, unemployed), height (centimetres) and weight (kilograms). Height and weight measures were used to calculate Body Mass Index (BMI) of participants.

The 8-item 'Active Australia Survey' was used to measure changes in physical activity. This survey assesses frequency and duration of walking for transport, walking for recreation, moderate intensity physical activity and vigorous intensity physical activity [26]. Total physical activity was calculated by summing the time spent in walking, moderate activity and vigorous activity (weighted by two) according to specified scoring guidelines [26]. Moderate-to-vigorous physical activity was also calculated and did not include time spend walking. The Active Australia Survey has acceptable test-retest reliability (ICC = 0.64) and validity (r = 0.61) in the Australian adult population, and has been documented as a useful evaluative tool for detecting intervention related change in physical activity [27,28].

Sitting Time was measured using the 10-item 'Workforce Sitting Questionnaire' [29]. Participants reported time (hours/minutes) spent sitting on usual working and non-working days in relation to work, transport, TV use, computer use, and other leisure-time sitting. One question also assessed the number of days participants usually work in a week. Total sitting time was defined as the sum of sitting time in all domains for all days. This questionnaire has demonstrated adequate test-retest reliability and validity [29].

The acceptability of the physical activity advice, website usability and Fitbit use were also assessed [14]. These questions were based on previously published work where advice acceptability of similar interventions was assessed [14]. Finally, Module completion was tracked objectively via the intervention website.

## 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	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$	essential

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

Copy and paste relevant sections from manuscript text

Your answer

## 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	0	0	$\circ$	0	$\circ$	essential

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

Copy and paste relevant sections from manuscript text

#### 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).

5 subitem not at essential all important

#### 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

N/A

7a) How sample size was determined



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

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

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

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

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

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

Your answer

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

N/A

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

After completing baseline assessments, participants were randomised into one of two groups in a ratio of 1:1 using a random list generator (www.randomisation.com),

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



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

After completing baseline assessments, participants were randomised into one of two groups in a ratio of 1:1 using a random list generator (www.randomisation.com),

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

After completing baseline assessments, participants were randomised into one of two groups in a ratio of 1:1 using a random list generator (www.randomisation.com),

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

After completing the online screening-tool, eligible participants completed online baseline surveys (see 'measures' section below). After completing baseline assessments, participants were randomised into one of two groups in a ratio of 1:1 using a random list generator (www.randomisation.com), and provided with access to the TaylorActive intervention (see 'intervention' section below).

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).

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

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

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

N/A

## 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".

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

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

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

Your answer

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

The only difference between groups was on how physical activity was assessed in order to provide personalised advice for the 8 modules. In the 'non-Fitbit' group, participants completed an adapted version of the 'Godin-Shephard Leisure-time Exercise Questionnaire' at the start of each module [24]. In the 'Fitbit' group, physical activity was assessed using a Fitbit Flex (this device does not have a display other than 5 tiny LEDs; one LED illuminates for every 2000 steps taken). Participants only needed to click one button on the TaylorActive website at the start of each module to import physical activity data collected using the Fitbit. The physical activity advice was structured in the same way for both groups, as equivalent variables were extracted from both assessment methods (light, moderate, vigorous and total physical activity).

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

Analyses were conducted using SPSS v24. Descriptive statistics of participants' demographics, total physical activity, moderate-to-vigorous physical activity, total sitting time and BMI at baseline are presented. Group (Fitbit, non-Fitbit) comparisons were conducted using t-tests for continuous variables and chisquare analyses for categorical variables. To test for a group (Fitbit, non-Fitbit) by time (baseline, 1 month and 3 months) interaction on total weekly physical activity, an intention-to-treat linear mixed model analysis was conducted. Three more intention-to-treat linear mixed model analyses were conducted to test a group by time interaction effects on moderate-to-vigorous physical activity, sitting time and BMI. All linear mixed model analyses were adjusted for age, sex, education, employment, income, version of the TaylorActive intervention (video or text), and BMI (with exception of the model what was examining BMI itself). The non-Fitbit group was the reference variable for group and baseline was the reference variable for time.

## 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]).

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

#### 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

To test for a group (Fitbit, non-Fitbit) by time (baseline, 1 month and 3 months) interaction on total weekly physical activity, an intention-to-treat linear mixed model analysis was conducted

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

Three more intention-to-treat linear mixed model analyses were conducted to test a group by time interaction effects on moderate-to-vigorous physical activity, sitting time and BMI. All linear mixed model analyses were adjusted for age, sex, education, employment, income, version of the TaylorActive intervention (video or text), and BMI (with exception of the model what was examining BMI itself).

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



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

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

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

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

Your answer

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

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

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

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

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

Your answer

#### 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)

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

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

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

Your answer



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

A total of 243 participants were randomised (see Figure 1 for participant flow).

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

A total of 243 participants were randomised (see Figure 1 for participant flow).

#### 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.

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

#### 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

Your answer

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

All data were collected and analysed in 2016 and 2017.

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

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

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

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

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

Your answer

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

N/A

## 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

Participant characteristics are reported in Table 1.

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

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

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

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

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

Participant characteristics are reported in Table 1.

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

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

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

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

#### 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

A total of 243 participants were randomised (see Figure 1 for participant flow).

#### 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	$\circ$	$\circ$	$\circ$	$\circ$	0	essential

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

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

Your answer

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

There were significant time effects at 1- and 3-months for both groups for total physical activity, and also a significant time by group interaction at 3-months (adjusted mean difference = 163.2 minutes; 95%CI=52.0-274.5; p=0.004) though not at 1-month (see Table 2 and Figure 2). Total physical activity increased 119.3 min/week in the non-Fitbit group and 284.9 min/week in the Fitbit group at 3months. Similarly, significant time effects were observed at 1- and 3-months for moderate to vigorous physical activity, as well as a significant time by group interaction at 3-months (adjusted mean difference = 78.6 minutes; 95%CI=24.4-131.9; p=0.004), but again not at 1-month. Total moderate-to-vigorous physical activity increased 38.3 min/week in the non-Fitbit group and 117.2 min/week in the Fitbit group at 3-months. While there was a significant time effect for sitting time in the Fitbit group at 3-months, no other statistically significant time effects or interaction effects were found. Sitting was, on average, reduced by 56 min/day in the non-Fitbit group and 101 min/day in the Fitbit-group at 3-months. For BMI, significant time effects were found at both time points for the non-Fitbit group, but only at 3-months for the Fitibit group; no interaction effects were observed. BMI was reduced by 1.07 in the non-Fitbit group and 1.54 in the Fitbit group.

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

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

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

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

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

Your answer

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

N/A

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

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

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

N/A

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

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

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

N/A

#### 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	0	0	0	0	$\circ$	essential

#### 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

Your answer

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

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

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

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

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

Your answer



## 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	0	$\circ$	$\circ$	$\circ$	$\circ$	essential

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

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

The main aim of this study was to examine whether integrating a Fitbit activity tracker into a computer-tailored physical activity intervention increased the effectiveness of the intervention. The study findings clearly support the integration of activity trackers in to a web-based physical activity intervention that provides participants with personalised advice. Total physical activity increased more than twice as much in the Fitbit group, compared to the non-Fitbit group, and moderate-to-vigorous physical activity increased nearly 3 times as much at 3 months. The lack of significant interaction effects at 1-month may be explained by participants not having received all intervention content at this stage. It takes some time to change behaviour and physical activity levels were still increasing at that point in time (see Figure 2).

## 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	$\bigcirc$	$\circ$	$\circ$	$\circ$	$\circ$	essential

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

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

Your answer

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	0	0	$\circ$	0	$\circ$	essential

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

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

Despite the significant findings and the novelty of the study, several study limitations should be noted; as such the study findings should be interpreted with some caution. Firstly, the study did not have a control group or a trackeronly group; it is possible that outcomes in the Fitbit group are due to the Fitbit itself, and not because of the combined intervention. A more robust study design (including a 'Fitbit-only' group) is needed to clarify this and disentangle these effects. On the other hand, higher website usability and acceptability in the Fitbit group suggests the computer-tailored website was genuinely contributing to the increase in physical activity, as participants could have chosen to only use the Fitbit and ignore the computer-tailored website, but rather they used it more than participants who did not receive a Fitbit. Secondly, the intervention groups were small and drop-out was high. It should be noted that the total lack of face-to-face interaction with participants (thus low accountability), may have contributed to the high levels of drop-out [36,37]. High drop-out rates are common in webbased interventions [38,39]. Though it was interesting to observe that just providing participants with a Fitbit significantly increased retention. Many intervention studies have found higher drop out in intervention groups (or higher intensity intervention groups) compared to control groups due to the additional burden of actively participating and trying to improve health behaviour [15]; this did not apply to our study. Thirdly, while the Fitbit objectively assessed physical activity, we were not able to use it to assess change over time as only one group was provided with a Fitbit. Budgetary constraints meant we had to rely on a selfreport measure to assess change over time, and while the Active Australia Survey has demonstrated it can detect change over time [28], the findings should be interpreted with caution. As the introduction points out, self-report physical activity measures are prone to over-reporting [9], however in theory the measurement error should be consistent across groups, so it is likely that the difference between groups is real, but the magnitude of the outcomes is less certain. Finally, there was no longer-term follow-up to assess changes in behavioural outcomes. The 3-month assessment was immediately after the end of the intervention delivery, so behaviour change maintenance effects and differences between groups could not be tested. Maintenance of physical activity improvements has been very difficult to achieve, with the majority of studies showing declines in activity levels after the intervention has finished [40,41].

## 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	$\bigcirc$	$\circ$	$\circ$	$\circ$	0	essential

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

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

Your answer

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

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

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

All participants provided informed consent, ethical approval was obtained from the CQUniversity Human Ethics Committee (H1608-227) and the trial was registered at the Australian New Zealand Clinical Trails Registry (ACTRN12616001555448). All data were collected and analysed in 2016 and 2017.

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

Participants in both groups received access to a computer-tailored physical activity intervention named TaylorActive [20].

#### 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

The following support was received for conducting the study and supporting the researchers: the study was funded through a Central Queensland University infrastructure grant and through support funds as part of a National Heart Foundation of Australia Future Leader Fellowship (ID 100427). Study funders had no role in any part of this study.

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	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$	essential

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

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

Your answer

About the CONSORT EHEALTH checklist



As a result of using this checklist, did you make changes in you manuscript? *
yes, major changes
yes, minor changes
O 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 * 2 hours
As a result of using this checklist, do you think your manuscript has improved? *
has improved? *

### Would you like to become involved in the CONSORT EHEALTH group?

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

yes

no

Other:

#### Any other comments or questions on CONSORT EHEALTH

Your answer

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