# 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: <u>http://www.jmir.org/2011/4/e126/</u> doi: 10.2196/jmir.1923 PMID: 22209829

\*Obligatorio

# Your name \*

First Last

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### Title of your manuscript \*

Provide the (draft) title of your manuscript.

Impact of a web-based exercise and nutritional educational intervention in obese patients with hypertension: a randomised waitlist-controlled trial

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

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

Vivir mejor (Live better)

Evaluated Version (if any)

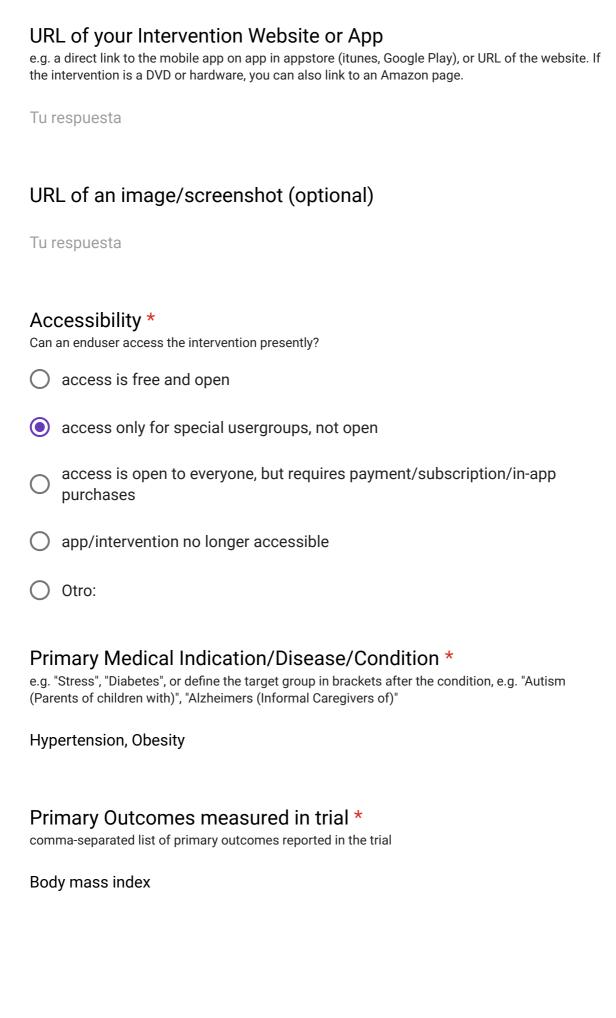
e.g. "V1", "Release 2017-03-01", "Version 2.0.27913"

Tu respuesta

### Language(s) \*

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

Spanish



### Secondary/other outcomes

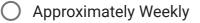
Are there any other outcomes the intervention is expected to affect?

Body fat mass, Systolic and diastolic blood pressure, plasma glucose, insulin, habitual level of physical activity, aerobic capacity

# Recommended "Dose" \*

What do the instructions for users say on how often the app should be used?

Approximately Daily



- Approximately Monthly
- Approximately Yearly
- 🔵 "as needed"
- 🔵 Otro:

Approx. Percentage of Users (starters) still using the app as recommended after 3 months *
O unknown / not evaluated
0-10%
0 11-20%
0 21-30%
31-40%
O 41-50%
51-60%
61-70%
71%-80%
0 81-90%
91-100%
O Otro:

# 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

$\mathbf{i}$	Otro
$\mathbf{i}$	Otro

### 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

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$\smile$		

Otro:

### 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
- Otro:

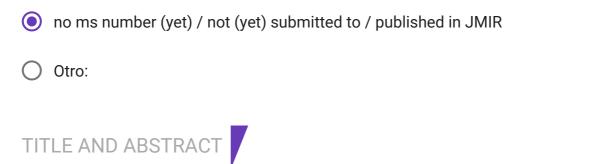
# Is this a full powered effectiveness trial or a pilot/feasibility trial?



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 fourdigit number at the end of the DOI, to be found at the bottom of each published article in JMIR)



# 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")



🔵 Otro:

### 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.



### 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

"Impact of a web-based exercise and nutritional educational intervention in obese patients with hypertension: a randomised waitlist-controlled 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").



### 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

Tu respuesta

# 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



### 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

"in obese patients with hypertension"

# 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)



### 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

"completely self-administered internet-based intervention involving different modules and learning techniques, aimed at promoting lifestyle changes (both physical activity and healthy eating) "

# 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)



### 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

Tu respuesta

# 1b-iii) Open vs. closed, web-based (self-assessment) vs. face-toface 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 all important	0	0	0	0	0	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

Tu respuesta

### 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)



### 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

Tu respuesta

# 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	0	0	0	0	0	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

Tu respuesta



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	$\bigcirc$	$\bigcirc$	$\bigcirc$	۲	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

"Promoting healthy lifestyles (physical activity and healthy eating) through lifestyle counselling is recommended as the first-line therapy for the treatment of these patients and may be an effective tool for treating obesity and preventing obesity-related health burdens [6,8,9]. However, frequent visits to outpatient clinics are costly and time-consuming for patients as well as for physicians and nurse practitioners. These patients need to develop specific self-management skills so that they can make long-lasting lifestyle changes and adhere to their treatments, however, clinics may not be ideal environment for them because these surroundings can be perceived as intrusive and threatening [10,11]. Furthermore, in many cases physicians and nurses do not have the proper background training to be able to provide patients with the best possible counselling about nutrition or physical activity. Therefore, an approach is needed that can be offered without imposing additional burdens on our healthcare workers or budget. "

# 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	۲	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

"So far, very few studies have investigated the effects of internet-based programs on obese patients with HTN [27-29]. Furthermore, to the best of our knowledge, no study has assessed the efficacy of a completely self-administered internetbased intervention entailing the completion of different modules and which incorporates several learning techniques aimed at promoting lifestyle changes in obese patients with HTN."

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

"This study aimed to examine the short- and long-term efficacy in terms of body composition and BP parameters of a completely self-administered internet-based intervention involving different modules and learning techniques, aimed at promoting lifestyle changes (both physical activity and healthy eating) in obese patients with HTN.

Compared with the wait-list control group receiving standard medical care, we hypothesized that the internet-based intervention group will have significantly better improvements for body composition, BP, blood glucose and insulin levels, physical activity levels, and aerobic exercise capacity from baseline to post-intervention."



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 prospective, single-centre, waitlist-controlled trial (Trial Registration: ClinicalTrials.gov NCT03396302) with balanced randomisation [1:1], was approved by the Hospital of Sagunto Human Ethics Committee and followed the ethical guidelines set out in the Declaration of Helsinki."

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

There were no important changes after 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].



### 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

Tu respuesta

# 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 all adults aged between 18 and 65 years with HTN and who were overweight or had type-I obesity (a body mass indices [BMIs] > 25 kg/m2 and < 35 kg/m2, respectively). Exclusion criteria were a diagnosis of diabetes, previous ischemic heart disease, cerebrovascular disease or a severe psychiatric disorder, taking more than three antihypertensive drugs, physical impairments precluding participation in physical activity, receiving any treatment for weight loss elsewhere, or no internet access."

# 4a-i) Computer / Internet literacy

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

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

# 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

Tu respuesta

### 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.



### 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

"The intervention programme we used is called Vivir mejor (translated from Spanish as 'Live better'; [27,30]. In this intervention, in addition to their usual medical care, participants received a three-month multimedia, interactive, and self-administered online intervention program comprising nine modules. "

#### 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	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	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

Tu respuesta

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

"The study took place at the HTN and Vascular-Risk Unit at the Hospital of Sagunto (Spain), from January 2018 to March 2019. "

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

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

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

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

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

The outcomes were not self-assessed.

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

# Does your paper address subitem 4b-ii?

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

Tu respuesta

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).



### 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

Tu respuesta

### 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.



### 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

Tu respuesta

### 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	0	0	0	0	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

Tu respuesta

# 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	0	0	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

Tu respuesta

# 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.



### 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

Tu respuesta

### 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, <u>webcitation.org</u>, 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	0	0	0	essential

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

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

Tu respuesta

### 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).

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subitem not at all important	0	0	0	0	۲	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

"This internet-based intervention was delivered using a web-based platform called Wix. Wix is a self-hosted website builder and content management system with more than 90 million users (http://www.wix.com). This cloud-based website development platform is customisable with drag-and-drop features and includes apps, graphics, image galleries, fonts, and a responsive design which adjusts the site for viewing with mobile devices. We purchased a unique website domain URL to avoid pop-up advertising from Wix. To prevent the general public from accessing the site, a password-login was added to secure the proprietary information and participant responses [34]."

# 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].



### 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

"The program was delivered in the participants' native language (Spanish) and included psychoeducation about what a healthy lifestyle involves and teaches techniques for how this can be achieved on a day-to-day basis. Some of the techniques used were self-monitoring, self-instruction, behavioural recording, stimulus control, self-reinforcement, problem-solving techniques, and homework. In addition, the web page offered useful tools, such as downloadable documents and videos. This program is described in more detail in Baños et al. [30]"

### 5-ix) Describe use parameters

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



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

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

Tu respuesta

# 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	$\bigcirc$	0	0	0	0	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

Tu respuesta

### 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).



### 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

"This program is described in more detail in Baños et al. [30]."

# 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	0	۲	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

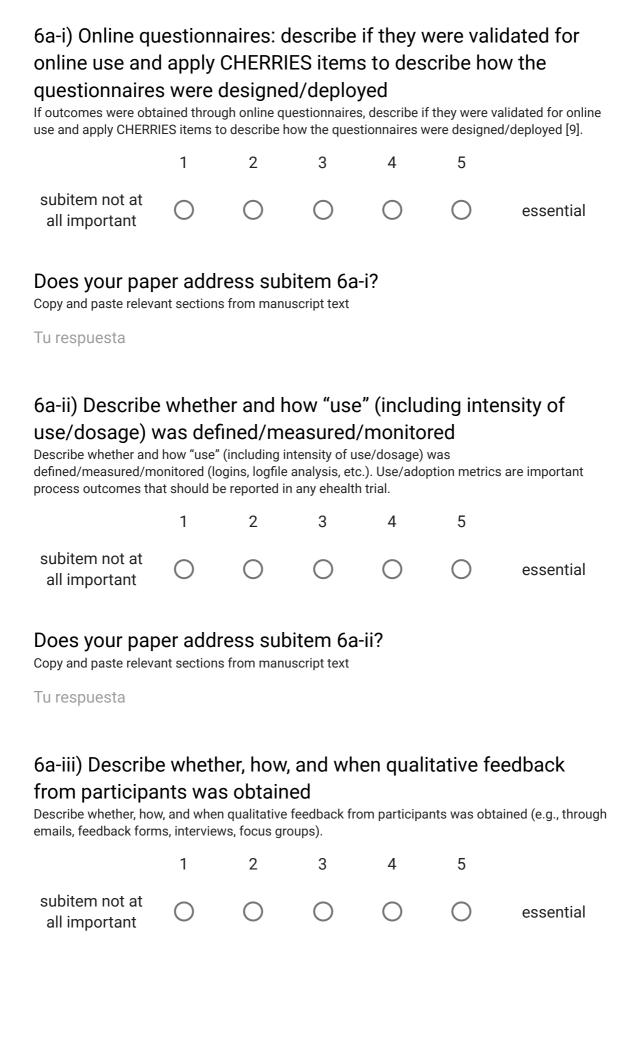
"This program is described in more detail in Baños et al. [30]."

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

"The primary outcome (BMI) and secondary outcomes (body fat mass, systolic and diastolic BP, plasma glucose, insulin, habitual level of physical activity and aerobic capacity) were measured using validated and reliable tests. " "As shown in the participant flow chart (Figure 1), all the outcome measures were assessed at baseline (Time 0), 3-months post-baseline (Time 1), and at a 12month follow-up (Time 2) in the IBI group. WLC group participants took part in an initial baseline assessment (Time 0) followed by a second assessment 3-months post-baseline (Time 1). After the Time 1 assessment, WLC participants received the intervention, which was offered in order to comply with the instructions of the Hospital's Human Ethics Committee, and the patients were subsequently assessed at a 12-month follow-up (Time 2). Thus, all the participants underwent a pre-intervention, post-intervention (3-months), and 12-month follow-up assessment, and the WLC participants were assessed twice before the intervention. "



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

Copy and paste relevant sections from manuscript text

Tu respuesta

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

There were no changes 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.



#### 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

"To detect a reduction in BMI of 1 (SD = 1.7), which agrees with data based on a previous study [27], with a two-sided 5% significance level and a power of 80%, and also accounting for an anticipated dropout rate of 10%, a sample size of 52 participants per group was required. "

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

#### Not applicable.

# 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

"Before the start of the trial, Researcher 1, who was not involved in the recruitment or inclusion of the participants, generated a random sequence (based on simple randomisation) using a computerised random number generator; this was concealed from all the other study investigators throughout the entire study period. "

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

"Before the start of the trial, Researcher 1, who was not involved in the recruitment or inclusion of the participants, generated a random sequence (based on simple randomisation) using a computerised random number generator; this was concealed from all the other study investigators throughout the entire study period. "

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

"Before the start of the trial, Researcher 1, who was not involved in the recruitment or inclusion of the participants, generated a random sequence (based on simple randomisation) using a computerised random number generator; this was concealed from all the other study investigators throughout the entire study period. "

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

"Before the start of the trial, Researcher 1, who was not involved in the recruitment or inclusion of the participants, generated a random sequence (based on simple randomisation) using a computerised random number generator; this was concealed from all the other study investigators throughout the entire study period. "

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).



### 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

"All the outcome measurements were recorded in both groups by two trained researchers who were blinded to the group allocation."

# 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	$\bigcirc$	0	$\bigcirc$	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

Tu respuesta

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

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

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

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

#### Not relevant.

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

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

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

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

"To compare the success of the randomisation, a chi-squared test was used to determine differences in gender distribution between the groups. Independentsample t-tests and the Mann–Whitney U test were also performed as preliminarily tests to detect potential gender differences among all the variables. The study used both a between-subjects and a within-subjects design, with measurements recorded at 3 time points (baseline, post-intervention, and 12months follow-up). The between-group comparison (IBI vs. WLC) assessed the effect of IBI on outcomes; the within-subject analyses assessed the effect of IBI over time at the individual level. This approach was selected because all the WLC participants also subsequently received the IBI intervention. The statistical analysis was performed according to intention-to-treat. Statistical analyses were performed using SPSS version 19.0 for Windows (SPSS Inc., Chicago, IL, USA) and the statistical significance was set at P<.05 for all our analyses. The data in this study are presented as the mean ± SD.

#### Analysis at 3 months

Two-way mixed ANOVA tests were used to compare the study effects on the BMI, BFM, SBP, DBP, blood glucose and insulin levels, physical activity levels, and aerobic exercise capacity, using time (baseline vs. post-intervention) as the within-group factor and group (IBI vs. WLC) as the between-group factor. Effect sizes were estimated using partial eta squared ( $\eta$ 2p) and interpreted following the Cohen guidelines [37] for small effect sizes ( $\eta$ 2p=.01), moderate effect sizes ( $\eta$ 2p=.06), and large effect sizes ( $\eta$ 2p=.14).

#### Analysis at 12 months

After testing the normality (using the Shapiro–Wilk test) of the pooled data from both groups (N = 105), the following statistical tests were carried out as follows: (1) t-tests on related samples to compare the baseline versus 12-month follow-up values for the anthropometric variables (BMI and BFM), SBP, DPB, and blood glucose; and (2) Wilcoxon tests to compare the pre- versus 12-month follow-up values for insulin. Program engagement was analysed by calculating the percentage of participants who completed the entire program. We did not record the patients' level of physical activity or their aerobic exercise capacity at 12 months because of the implied complexity of asking participants to record these measurements for one year."

# 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	0	0	0	۲	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

"The statistical analysis was performed according to intention-to-treat."

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

"Independent-sample t-tests and the Mann–Whitney U test were also performed as preliminarily tests to detect potential gender differences among all the variables."

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	$\bigcirc$	0	0	$\bigcirc$	essential

# 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

Tu respuesta

# 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.



### 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

Tu respuesta

# 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)



# 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

Tu respuesta



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

"We screened 510 participants in this randomised controlled trial. A total of 405 consecutive subjects were not allocated for randomisation because they declined to participate (n = 99) or did not meet the inclusion criteria (n = 306)."

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

This information is reported in Figure 1 (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.



### 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

Tu respuesta

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

"The study used both a between-subjects and a within-subjects design, with measurements recorded at 3 time points (baseline, post-intervention, and 12months follow-up)."

### 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	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	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

Tu respuesta

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

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

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

Not applicable.

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 information is 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.



### 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

"This information is reported in Table 1."

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

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

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



### 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

"This information is reported in Figure 1, and Tables 2 and 3."

### 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).



### 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

Tu respuesta

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

"This information is reported in Tables 2 and 3."

# 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).



### 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

Tu respuesta

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

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

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

Not applicable.

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

"This information is reported in Table 2"

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

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

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

Tu respuesta

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

There were no important harms or unintended effects.

#### 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	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	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

Tu respuesta

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

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

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

## Does your paper address subitem 19-ii?

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



# 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).



### 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 present study evaluated the efficacy of a 3-month completely selfadministered internet-based intervention called Live better which aims to promote lifestyle changes in obese patients with HTN. Our results showed a significant decrease in the BMI, BFM, and blood glucose levels at 3 months in the IBI group, with a moderate to large effect size for BMI and BFM, and also highlighted a trend toward significance for DBP and insulin levels. Moreover, these improvements in BMI, BFM, and BP were sustained and reached statistical significance for DBP at the 12-month follow-up. When evaluating specific internet-based interventions, several attributes may be associated with increased e-counselling efficacy. These include its duration [22,38], the range of behaviourchange techniques offered [22,39], target behaviours to be modified [22], whether specific disease entities are targeted or not [38], and program engagement [34,40]. Duration

For any intervention to have a significant and sustained effect, a minimum followup time of 6 months is required [38]. Indeed, in a recent meta-analysis, Sam Liu et al. [22] showed that internet-based interventions lasting at least 6 months were associated with greater BP reductions. These authors argued that the influence of lifestyle interventions on BP may require a critical period for therapeutic changes to appear and that longer interventions might be required to facilitate comprehensive physical changes such as weight reduction. Three months after beginning our study we found a significant BMI reduction (0.4 kg/m2) that was sustained after 12 months. Moreover, the mean decrease in BFM (by 1 kg) achieved after three months had doubled 12 months later (to 2.4 kg). Although this parameter is less frequently used because of its lower feasibility, BFM may be a better marker of cardiovascular risk compared to BMI, which has been criticised because the latter does not always reflect true body fat content [41,42]. Indeed, BMI has some limitations in assessing the risk of obesity-related diseases in subjects with low muscle and high body fat content [43] and in individuals with increased body fat and a normal BMI.

Consistent with our results, a Cochrane meta-analysis concluded that interactive computer-based interventions, compared to no intervention or minimal interventions (e.g., pamphlets or usual care), are an effective tool for enhancing weight loss and weight maintenance [12]. In addition, providing support oriented towards self-management while patients change their lifestyle leads to improved health outcomes [24,44] and better long-term effects [45].

Concerning BP values, we found a non-significant decrease in systolic (-2.6 mmHg) and diastolic (-2.0 mmHg) BP after 3 months, which was sustained and even reached statistical significance after 12 months in the case of DBP (-1.8 mmHg). These results are slightly lower than those reported in the Internet

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

Lifestyle Counselling metanalysis (-3.8 mmHg for SBP and -2.1 mmHg for DBP) by Liu et al. [22] and are also lower than the BP reductions reported by other metanalyses that considered face-to-face lifestyle-counselling [9,46]. The lack of a stronger significant effect in our study may be because the BP at baseline was already well controlled by antihypertensive medications [47-49] by a specialised HTN Unit.

#### Range of behaviour-change techniques

Two recent meta-analyses which evaluated the BP lowering [22] and weight-loss [39] achieved by e-counselling lifestyle interventions reported that their efficacy depended on the number of intervention components they included. The metaanalysis by Liu et al. [22] found that BP was preferentially (and significantly) reduced by interventions providing a wider range of behavioural-change techniques and suggested that "a critical number of techniques (at least 5) may be required to build a flexible repertoire of skills that are necessary to overcome situational stressors that might otherwise impede therapeutic lifestyle change". These authors reported that the behavioural change techniques present in more than 50% of the successful internet-based interventions shared the following features: provision of general information about the consequences of the patient's behaviour (86% of studies), incorporation of feedback on performance (86%), prompting behavioural self-monitoring (71%), and giving instructions on how to perform targeted behavioural changes (71%). Likewise, Khaylis et al. [50] also conducted a systematic review of efficacious technology-based weight-loss interventions and to identify several similar components (self-monitoring, counsellor feedback and communication, social support, structured programs, and individually tailored programs) that were key to their success. Other effective components identified in the technology-based weight-loss literature as potential factors that increase intervention effectiveness are goal setting, motivational interviewing, and incentives [30,51,52].

All the behavioural-change techniques mentioned by Liu et al. [22] and Khaylis et al. [50] were present in our intervention, except for feedback incorporation, motivational interviewing, and social support, because these were not possible given the self-administered nature of our intervention (which maintained its low monetary and time cost). Moreover, this trial was distinct insofar as it also incorporated problem-solving techniques focussed on the regulation of emotional eating (module 5) and the difficulties associated with body image and assertiveness (module 7). As Katan [53] suggested, cognitions and feelings have a big impact on behaviour during dieting and thus, may strengthen or disrupt treatment engagement and compliance with clinical prescriptions. Indeed, psychological factors and processes mediate every behaviour change and differently affect both the initiation and maintenance phases of change [54]. Target behaviours to be modified

Exercise and diet are two major target behaviours for modification by internetbased e-counselling interventions designed to prevent or treat cardiovascular automated, self-guided, internet-based lifestyle counselling (e-counselling) programs can evoke meaningful improvements in daily physical activity [55,56] and dietary behaviours [56,57]. Moreover, meta-analysis reviews indicate that exercise and diet, provided by conventional programs or by internet-based interventions, significantly decrease cardiovascular risk factors [9,16,46,58,59]. Our Live better intervention focused on modifying both of these target behaviours because it has been shown that tackling them simultaneously is more effective at promoting weight loss than targeting either alone [60].

After three months, our results showed improvements in the patients' aerobic exercise capacity with a large effect size in both sexes ( $\eta 2p > 0.2$ ) in the IBI group. Nevertheless, caution must be shown in interpreting these results because this variable also increases in men in the WCL group and there was a nonsignificant trend towards improvement in women. It is worth considering that a learning effect over a 2-month period has been documented with repeated administration of the 6MWT [61]. However, in contrast to subjective physical activity estimations like questionnaires, in our study we used an accelerometer to obtain precise and objective measurements of activity levels in overweight and obese individuals [62]. We did not find significant inter-group or intra-group differences after three months and so this period may represent too short a time for any physical activity behaviour changes to have been noted among our participants. Unfortunately, the use of accelerometers was associated with difficulties that prevented the participants from repeating the measurements after 12 months. However, the fact that the reduction in BFM doubled in the time between the end of the intervention (3 months) and the end of the study (12 months), while simultaneously maintaining a constant BMI, may indicate that the patients had increased muscle mass secondary to higher levels of physical activity during this period. Thus, future studies will be required to measure muscle mass in order to test this hypothesis.

Targeting specific disease entities

Live better was specifically designed to treat HTN in overweight patients or those with type-I obesity, and its implementation resulted in modest but positive measurable results in body composition and BP. In general, internet-based programs are more successful if they are targeted at specific disease entities such as HTN [38]. Although our study listed diabetes as an exclusion criterion, and our intervention did not specifically focus on this disease, improved glucose metabolism was also relevant in our study because we detected a significant and sustained decrease in glucose levels among our patients. The close relationship between glucose metabolism variables and healthy living through physical activity and healthy eating is well known. In line with this, a recent high-quality randomised lifestyle-intervention trial conducted over 12 and 24 months in individuals with type 2 diabetes mellitus or impaired fasting glucose levels showed the internet-based intervention to be useful in reducing fasting plasma glucose [21].

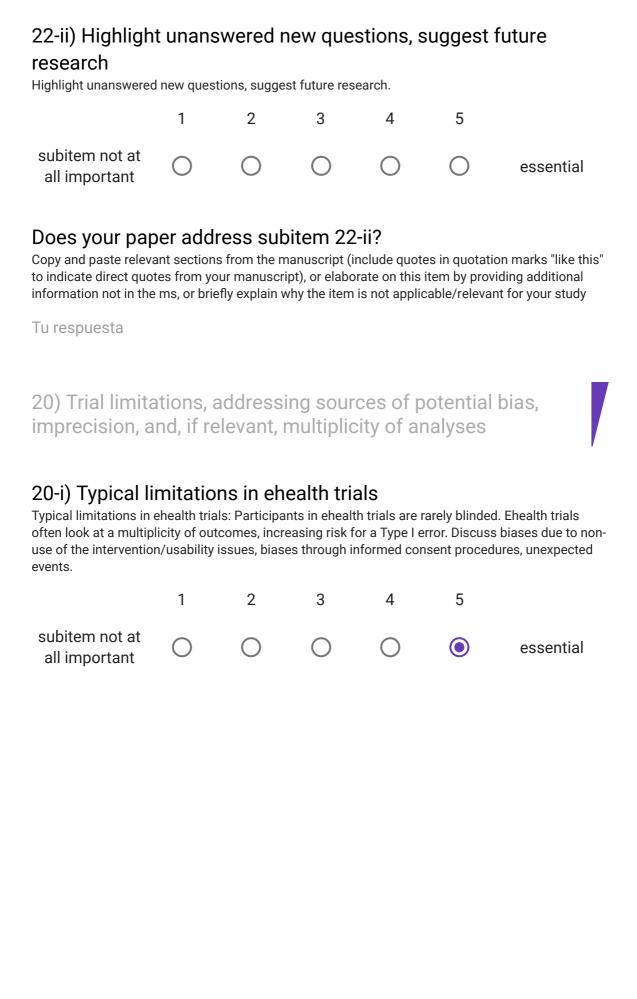
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Program engagement

Lastly, in terms of program engagement, the percentage of participants who completed our entire program was high (73%) and was similar to the levels reported in related eHealth interventions [34,63]. Increasing knowledge about healthy lifestyles and making tailor-made prevention programmes possible can empower individuals and improve their adherence to interventions [64]. In this sense, the wide and still-growing access and use of the internet has become a major resource in the assessment of health information [65]. This is especially true for adults with chronic conditions who are more likely to seek health information on the internet than their counterparts with acute ailments [66-68]. Using modern information and communication technologies to deliver physical activity and diet interventions is particularly promising considering the increased proliferation of such technologies in many developing countries.

The internet is an efficient way to prevent and treat chronic conditions by promoting healthy lifestyles because: (1) it can reach more individuals (including those with limited access to health services or with low levels of social support), and can provide more intensive contact at potentially lower costs than conventional face-to-face programs [69-72]; (2) it can provide immediate, easy-access, individually-tailored (one-to-one), and 'permanent' (accessible at any time) behavioural-change support by delivering care to patients in the comfort of their own homes with self-paced delivery [34,39,71]; and (3) it is less intrusive than traditional methods and can more easily be implemented in an environment that is less threatening than a hospital [10].

However, despite the encouraging results of this study and other studies on internet-based programs, the goal of web-based interventions is not to replace inperson care but rather, to maximise care. Of note, internet interventions also have potential disadvantages, such as their inability to recognise comorbidities that would not have become apparent without the patient implementing lifestyle changes. Furthermore, internet-use depends on age, income, education levels, and digital skills, and there may be participation bias and lower response rates because of technical problems or different levels of computer experience among participants [5]. In addition, ironically, internet use is a sedentary behaviour, which is known to be an independent risk factor for cardiovascular disease, so caution should be exercised when designing these programs so that they prevent rather than encourage further sedentary attitudes and behaviours."



#### 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

"The main limitation of this study was its lack of a control group for the analysis carried out at 12 months. Although the positive results at 3-months remained at the 12-month follow-up visit, the follow-up analyses were based on uncontrolled data and thus, should be interpreted with caution. Controls eliminate possible alternate explanations of experimental results, especially those of confounding variables and experimental bias, allowing investigators to control for threats to validity.

Furthermore, the participants we enrolled had demonstrated an initial level of motivation to engage in an eHealth program. Therefore, our findings may only be generalisable to individuals with internet access who are similarly interested in such eHealth interventions [73]. In addition, our participants were recruited from a public hospital (rather than a private one) which may have influenced our results because sociodemographic status (which could correlate with the use of public hospitals) has been related to treatment adherence for chronic conditions [74,75]. Another possible limitation of the study was the inclusion of BMI as the primary outcome. Although the waist circumference or waist-hip ratio are considered better anthropometric parameters to reflect the risk of cardiovascular disease associated with obesity, the BMI clinical tool has been shown to have the least bias during assessment [71]. Furthermore, BMI measurements in our study were complemented with segmental body-fat distribution analysis measured with bioelectrical impedance. Finally, even though intervention acceptability is related to its eventual effectiveness [76], we did not assess this data in our study, and thus we do not know how well the participants accepted this internet-based intervention."

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



#### 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

Tu respuesta

# 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	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	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

Tu respuesta



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

"This prospective, single-centre, waitlist-controlled trial (Trial Registration: ClinicalTrials.gov NCT03396302)"

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

"https://clinicaltrials.gov/ct2/show/NCT03396302"

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

None conflicts of interest declared.

X27) Conflicts of Interest (not a CONSORT item)

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

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

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

# Does your paper address subitem X27-i?

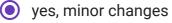
Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Tu respuesta

About the CONSORT EHEALTH checklist

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





🔵 no

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

The title.

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? \*



🔵 no

🔵 Otro:

# 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



) Otro:

## Any other comments or questions on CONSORT EHEALTH

Tu respuesta

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