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

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

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

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

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

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

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

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

Mandatory reporting items are marked with a red *.

In the textboxes, either copy & paste the relevant sections from your manuscript into this form - please include any quotes from your manuscript in QUOTATION MARKS, or answer directly by providing additional information not in the manuscript, or elaborating on why the item was not relevant for this study.

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

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

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

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

!

Eysenbach G, CONSORT-EHEALTH Group

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

Mobile Health Interventions

J Med Internet Res 2011;13(4):e126

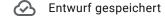
URL: http://www.jmir.org/2011/4/e126/

doi: 10.2196/jmir.1923

PMID: 22209829

jan.kohl1993@gmail.com Konto wechseln





* Gibt eine erforderliche Frage an

Your name *

First Last

Jan Kohl

Primary Affiliation (short), City, Country * University of Toronto, Toronto, Canada

University of Freiburg, Freiburg, Germany

Your e-mail address *

abc@gmail.com

jan.kohl@sport.uni-freiburg.de

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Title of your manuscript *

Provide the (draft) title of your manuscript.

Effects of a Web-Based Lifestyle Intervention on Weight Loss and Cardiometabolic Risk Factors in Adults With Overweight and Obesity: Randomized Controlled Clinical 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.

TK-GesundheitsCoach

Evaluated Version (if any)

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

Meine Antwort

Language(s) *

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

German

URL of your Intervention Website or App

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

https://ecoach.tk.de/de/info/coaching

URL of an image/screenshot (optional)				
Meine Antwort				
Accessibility * Can an enduser access the intervention presently? access is free and open access only for special usergroups, not open access is open to everyone, but requires payment/subscription/in-app purchases app/intervention no longer accessible Sonstiges:				
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)" Weight loss				
Primary Outcomes measured in trial * comma-separated list of primary outcomes reported in the trial Body weight				

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Secondary/other outcomes Are there any other outcomes the intervention is expected to affect?						
	body composition, cardiometabolic variables, dietary variables, physical activity					
	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"					
	Sonstiges:					

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

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

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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					
O Sonstiges:					
Is this a full powered effectiveness trial or a pilot/feasibility trial? *					
O Pilot/feasibility					
Fully powered					

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Manuscript	tracking	number *	

If this is a JMIR submission, please provide the manuscript tracking number under "other" (The ms tracking number can be found in the submission acknowledgement email, or when you login as author in JMIR. If the paper is already published in JMIR, then the ms tracking number is the four-digit number at the end of the DOI, to be found at the bottom of each published article in JMIR)

on ms number (yet) / not (yet) submitted to / published in JMIR

Sonstiges: ms#43426

TITLE AND ABSTRACT

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

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

I.e does the title contain the phrase "Randomized Controlled Trial"? (if not, explain the reason under "other")

yes

O Sonstiges:

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 O O O O 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

"Effects of a Web-Based Lifestyle Intervention on Weight Loss and Cardiometabolic Risk Factors in Adults With Overweight and Obesity: Randomized Controlled Clinical 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").

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subitem not at all important O 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

"Effects of a Web-Based Lifestyle Intervention on Weight Loss and Cardiometabolic Risk Factors in Adults With Overweight and Obesity: Randomized Controlled Clinical Trial"

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

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

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subitem not at all 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

"Effects of a Web-Based Lifestyle Intervention on Weight Loss and Cardiometabolic Risk Factors in Adults With Overweight and Obesity: Randomized Controlled Clinical Trial"

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

"Participants (n=153) were assigned to either (1) an interactive and fully automated web-based health program (intervention) or (2) a noninteractive web-based health program (control). The intervention program focused on dietary energy density and allowed for dietary documentation with appropriate feedback on energy density and nutrients. The control group only received information on weight loss and energy density, but the website did not contain interactive content."

1b-ii) Level of human involvement in the METHODS section of the ABSTRACT Clarify the level of human involvement in the abstract, e.g., use phrases like "fully automated" vs. "therapist/nurse/care provider/physician-assisted" (mention number and expertise of providers involved, if any). (Note: Only report in the abstract what the main paper is reporting. If this information is missing from the main body of text, consider adding it)

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Does your paper address subitem 1b-ii?

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

"Participants (n=153) were assigned to either (1) an interactive and fully automated webbased health program (intervention) or (2) a noninteractive web-based health program (control)."

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

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

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subitem not at all o o 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

"Participants (n=153) were assigned to either (1) an interactive and fully automated webbased health program (intervention) or (2) a noninteractive web-based health program (control)."

"Examinations were performed at baseline (t0), at the end of the 12-week intervention (t1), and at 6 months (t2) and 12 months (t3) thereafter."

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

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

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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

A comprehensive analysis of usage data from this overall project (3 online RCTs: doi: 10.1186/s13063-021-05470-8. and 2 clinical RCTs: doi: 10.3390/ijerph19031393) will be submitted in a timely manner. In this clinical RCT, multiple use was consistently seen in the intervention group.

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

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

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Does your paper address subitem 1b-v?

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

The primary outcome changed significantly.

"The interactive web-based health program was effective in reducing body weight and improving body composition in adults with overweight and obesity. However, these improvements were not associated with relevant changes in cardiometabolic variables, although it should be noted that the study population was predominantly metabolically healthy."

INTRODUCTION

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

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

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

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subitem not at all o o essential important

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

"Despite promising approaches, the effectiveness of web-based interventions is still under debate. In particular, longer-term effects and interactive web-based interventions require further investigation [21]. In addition, it should be noted that web-based interventions can be designed and structured very differently and that these differences can also influence the results to a large extent. In this context, it seems that interactive and tailored programs have greater effects on weight loss than informative websites [21,26,29].

Using interactive web-based interventions and addressing dietary energy density are considered 2 potential approaches for successful weight management, but to the best of our knowledge, they have not been studied in combination. The purpose of this randomized controlled ..."

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

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subitem not at all o o essential important

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

"Although there are specific and evidence-based dietary and physical activity recommendations to prevent and treat obesity and its associated comorbidities, these behaviors often cannot be implemented and established in the long term. Systemic and environmental drivers have a lasting effect on behavior and make long-term behavior change difficult [1]. For example, the food environment affects the control of food intake, whereby constantly available and energy-dense foods could lead to an increase in energy intake. These external signals influence the neural regulation of energy balance unconsciously, and a mere recommendation to reduce food intake is thus ineffective for long-term weight loss [11]. In this context, emerging evidence supports the relevance of dietary energy density in modifying energy intake and suggests it is a useful approach to weight loss [12-16].

In addition to potential solutions from nutrition or sports science, ways to improve preventive and therapeutic lifestyle interventions to counter the global trend of rising BMI and associated comorbidities are also being sought at the level of the delivery medium used. It is now well established that face-to-face lifestyle interventions can be effective in preventing and treating obesity and its associated diseases [17-19]. As digitization and technological capabilities continue to advance, web-based interventions to promote physical activity and healthy eating have increasingly come into focus to reduce body weight [20,21]. With potentially unlimited distribution, practically no waiting times, and low barriers, web-based interventions are intended to provide effective and low-cost care over the usual period of a face-to-face lifestyle intervention [22,23]. In terms of effectiveness and cost, there is preliminary evidence that web-based interventions can be used reasonably to treat overweight and obesity, as well as cardiovascular risk factors [24-28]..."

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

"Using interactive web-based interventions and addressing dietary energy density are considered 2 potential approaches for successful weight management, but to the best of our knowledge, they have not been studied in combination. The purpose of this randomized controlled clinical trial was to investigate the effectiveness of an interactive and fully automated web-based weight loss program focusing on dietary energy density in adults with overweight and obesity. Therefore, the study compared interactive and noninteractive webbased interventions, as both interventions have an unlimited reach and availability due to the lack of human involvement. We hypothesized that the interactive program would result in statistically significant improvements with small to medium effect sizes. Moreover, we assumed that these improvements would be significantly more pronounced in the interactive program than in the noninteractive program. The interactive weight loss program is part of a multimodal health program developed by a German health insurance company. This multimodal health program addresses individual health goals, such as weight loss, physical fitness, healthy eating, and smoking cessation. The different modules provide an individually tailored health intervention depending on the health goal and status. Each of the modules enables interactive health intervention for the prevention of noncommunicable diseases via selectable activities and corresponding feedback. This clinical substudy is part of an evaluation of a German-language web-based lifestyle intervention coordinated by the Section for Health Services Research and Rehabilitation Research (SEVERA) at the University Medical Center Freiburg [30,31]. The web-based weight loss program was investigated both in an online questionnaire study [32] and regionally in southwest Germany with medical variables in this clinical substudy."

METHODS

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

Does your paper address CONSORT subitem 3a? *

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

"Study participants in the online questionnaire study "weight loss" who were living in southwest Germany (postcode area: 79) were additionally invited to the Department of Sport and Sport Science of the University of Freiburg for the clinical substudy [30,31]. While changes in body weight were also reported by the participants in the online questionnaire study, in this subgroup, in which participants appeared in person for examination, additional clinical parameters and laboratory variables were collected. Medical examinations took place at baseline (t0), after the 12-week intervention (t1), and after an additional 6 months (t2) and 12 months (t3) of follow-up. During these medical examinations, participants had the opportunity to provide qualitative feedback. Besides these medical examinations, the participants of the clinical trial received the same web-based intervention as the participants of the online questionnaire study.

The study included intervention and control groups with automated randomization after completing the questionnaire at t0. Permuted block randomization was performed to obtain an approximately equal distribution in both study groups. Variable block sizes of 4, 6, and 8 were used for this purpose. The allocation sequence was created by SEVERA using RITA software (Version 1.50; Universität zu Lübeck) [30,31]. Randomization was performed automatically after online registration of the study participants. Because study participants can recognize their allocated intervention, blinding was not possible. Outcome assessors were blinded until completion of the analysis [30]."

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

Not applicable, as no changes have been made.

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

"The web-based health program was frozen for the evaluation to create a consistent study version."

Not applicable, as no changes have been made.

4a) Eligibility criteria for participants

Does your paper address CONSORT subitem 4a? *

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

"Participants aged 18 to 65 years in the online questionnaire study and residing in southwest Germany were additionally eligible to participate in the clinical substudy. The inclusion criteria for the clinical trial were a BMI of 27.5 to 34.9 kg/m2 and no pregnancy or breastfeeding. Furthermore, subjects were required to be in good health, especially without any illnesses where weight reduction could possibly lead to subsequent health problems. In the case of existing health problems and illnesses, a medical certificate had to be submitted confirming eligibility for participation in the study. Since the intervention was purely webbased, appropriate computer skills were required for online registration and participation."

4a-i) Computer / Internet literacy

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

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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

"Since the intervention was purely web-based, appropriate computer skills were required for online registration and participation."

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.

subitem not at all important O O O 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 aged 18 to 65 years in the online questionnaire study and residing in southwest Germany were additionally eligible to participate in the clinical substudy."

"Recruitment of the participants took place online and offline through various media, such as local newspapers, flyers, and Google advertisements. Through the various recruitment media, interested individuals were directed to an open-access landing page. On the landing page, people were able to find out about the study and register. Written informed consent was obtained for registration. After registration, automatic randomization was performed immediately, and the clinical substudy staff contacted the prospective study participants. During the contact, information about the study was provided again, the inclusion and exclusion criteria were verified, and an appointment was made for the first medical examination. With the successful completion of the first medical examination, the study enrollment was completed. As an incentive, participants in the clinical trial received an activity tracker, which also served as a measurement tool to record physical activity. Specific information on sample calculation and recruitment can be found in the detailed study protocol [30]."

4a-iii) Information giving during recruitment

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

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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

"Recruitment of the participants took place online and offline through various media, such as local newspapers, flyers, and Google advertisements. Through the various recruitment media, interested individuals were directed to an open-access landing page. On the landing page, people were able to find out about the study and register. Written informed consent was obtained for registration. After registration, automatic randomization was performed immediately, and the clinical substudy staff contacted the prospective study participants. During the contact, information about the study was provided again, the inclusion and exclusion criteria were verified, and an appointment was made for the first medical examination. With the successful completion of the first medical examination, the study enrollment was completed. As an incentive, participants in the clinical trial received an activity tracker, which also served as a measurement tool to record physical activity. Specific information on sample calculation and recruitment can be found in the detailed study protocol [30]."

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

"Study participants in the online questionnaire study "weight loss" who were living in southwest Germany (postcode area: 79) were additionally invited to the Department of Sport and Sport Science of the University of Freiburg for the clinical substudy [30,31]. While changes in body weight were also reported by the participants in the online questionnaire study, in this subgroup, in which participants appeared in person for examination, additional clinical parameters and laboratory variables were collected. Medical examinations took place at baseline (t0), after the 12-week intervention (t1), and after an additional 6 months (t2) and 12 months (t3) of follow-up."

4b-i) Report if outcomes were (self-)assessed through online questionnaires Clearly report if outcomes were (self-)assessed through online questionnaires (as common in web-based trials) or otherwise.

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

"Study participants in the online questionnaire study "weight loss" who were living in southwest Germany (postcode area: 79) were additionally invited to the Department of Sport and Sport Science of the University of Freiburg for the clinical substudy [30,31]. While changes in body weight were also reported by the participants in the online questionnaire study, in this subgroup, in which participants appeared in person for examination, additional clinical parameters and laboratory variables were collected."

4b-ii) Report how institutional affiliations are displayed

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

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subitem not at all important O O O 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

Meine Antwort

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).

subitem not at all o o essential important

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

"The Department of Sport and Sport Science (JK, JB, RW, DK, and RF) and Section for Health Services Research and Rehabilitation Research (SEVERA) (MS, IT, EF, CA, UAF, and PM) were commissioned by Techniker Krankenkasse (German Health Insurance Company) for the scientific evaluation of the web-based health program."

"The project was funded by Techniker Krankenkasse (German Health Insurance Company). The project funder had no influence on the planning and implementation of the study, the analysis and interpretation of the data, or the publication of the results."

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.

subitem not at all important o o o essential

Does your paper address subitem 5-ii?

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

"The main methodological points of this randomized controlled clinical trial with relevance to this paper are described below. A detailed description of the study methods can be found in the study protocol, which has already been published [30]. Additional information on the related online questionnaire study can be found elsewhere [31]."

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).

subitem not at all important O O O 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

"The web-based health program was frozen for the evaluation to create a consistent study version."

"Further details about the intervention can be found in the study protocol [30,31]."

5-iv) Quality assurance methods

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

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Does your paper address subitem 5-iv?

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

Not applicable to this fully automated intervention.

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

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

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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

Screenshots can be found in the corresponding study protocol. doi: 10.3390/ijerph19031393

5-vi) Digital preservation

Digital preservation: Provide the URL of the application, but as the intervention is likely to change or disappear over the course of the years; also make sure the intervention is archived (Internet Archive, webcitation.org, 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.

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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

Screenshots can be found in the corresponding study protocol.

doi: 10.3390/ijerph19031393

The current version of the intervention can be accessed.

https://ecoach.tk.de/de/info/coaching

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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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

A description regarding this can be found in the study protocol. doi: 10.3390/ijerph19031393

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].

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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

"Both interventions were fully automated and without human involvement. The intervention group received an interactive web-based health program. The multimodal web-based health program could provide personalized intervention depending on health goals. The web-based health program was frozen for the evaluation to create a consistent study version. For this study, all participants in the intervention group received the health program's weight loss module. This module of the health program runs for 12 weeks and aims to achieve long-term behavior change. The 12-week intervention was divided into 3 phases. In phase 1, users should try out and get to know the program (weeks 1-3). In phase 2, consolidation of the new behavior should occur (weeks 4-6). In the final phase 3, the new habits should be strengthened (weeks 7-12). Despite this division, the program was freely usable and did not follow a linear sequence. All information texts, videos, and activities could be accessed at any time, allowing the program to be used according to individual pace or need.

The focus of the interactive weight loss program was on reducing dietary energy density. For this, the program offered the possibility to log the diet and receive feedback accordingly in terms of energy density, energy intake, and macronutrients. The primary goal was not to have the participants lose as many kilograms as possible in terms of a crash diet. Rather, the goal was to achieve relatively slow weight loss, thereby primarily losing fat mass and maintaining the resting metabolic rate [33]. Therefore, the participants had the choice whether they wanted to lose 3 or 5 kg during the 12-week intervention. However, a higher weight loss was not prevented by the program. Moreover, the health program could be further individualized with numerous selectable activities. For the "weight loss" health goal, these included activities such as achieving 2 servings of fruit and 3 servings of vegetables, drinking at least 1.5 liters of water per day, or reaching 10,000 steps per day. The interactivity of the weight loss program was generated via the selectable activities and logging of the diet with corresponding visualized feedback.

In addition to this interactive content, there was an extensive knowledge area. This knowledge area included evidence-based articles on dietary energy density, healthy eating, and weight loss. Some of these articles were part of a weekly task and were staggered throughout the 12-week intervention. Besides the evidence-based information, the intervention offered a comprehensive collection of recipes to support users in practical application.

In contrast, the control group received noninteractive web-based information on how to lose weight by lowering dietary energy density while eating healthy. This noninteractive information was transmitted by short articles and was intended to serve the transfer of knowledge. This was a static intervention, meaning that no change in content occurred over the course of the 12 weeks.

Both groups were allowed to use or rerun their program following the 12-week intervention period. Thus, the corresponding program was freely available during the follow-up. Further details about the intervention can be found in the study protocol [30,31]."

5-ix) Describe use parameters

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

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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

No direct recommendations for use were given. The program recommends only indirect use (daily or weekly), in which logging of selected tasks and goals is necessary for fulfillment. Information on this can be found in the associated study protocol.

doi: 10.3390/ijerph19031393

5-x) Clarify the level of human involvement

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

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Does your paper address subitem 5-x?

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

"Both interventions were fully automated and without human involvement."

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

Participants were reminded for participation in the medical examinations. No reminder to use the program was provided. Information on this can be found in the associated study protocol.

doi: 10.3390/ijerph19031393

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.

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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

Technical support was provided in case of problems. Information on this can be found in the study protocol of the online questionnaire studies: doi: 10.1186/s13063-021-05470-8.

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 of the study was body weight. This was measured using the validated bioelectrical impedance scale Seca mBCA 515 (Seca GmbH & Co KG) [34-36]. The standardized measurement was performed in underwear, without accessories, such as glasses and jewelry, after 12 hours of fasting, and with an empty bladder.

In addition, behavioral and physiological variables were defined as secondary outcomes. In the behavioral domain, dietary and physical activity behaviors were recorded. Seven-day dietary records were generated at each of the 4 measurement time points using NutriGuide Plus software (Version 4.8; Nutri-Science GmbH). Energy intake, dietary energy density (excluding beverages), and macronutrients were evaluated using the dietary data. Physical activity was assessed using the activity tracker Fitbit Charge 3 (Fitbit, Inc) and the long version of the International Physical Activity Questionnaire (IPAQ-L; German) [37]. A minimum of 5 reliable days was required for each of the 1-week diet (dietary record) and physical activity (activity tracker) data collections to be included in the analysis.

In addition to the primary outcome of body weight, other anthropometric variables were measured or calculated. Thus, body height, BMI, waist circumference, fat mass, and fat-free mass were recorded using the bioelectrical impedance analysis scale Seca mBCA 515, the stadiometer Seca 274, and the measuring tape Seca 201 (Seca GmbH & Co KG). Blood samples were collected, and blood glucose (fasting glucose and glycated hemoglobin [HbA1c]) and blood lipids (total cholesterol, high-density lipoprotein [HDL] cholesterol, low-density lipoprotein [LDL] cholesterol, and triglycerides) were analyzed by the Medical Care Center (MVZ) Clotten in Freiburg. Blood pressure was measured using a validated measuring device (Boso Medicus Exclusive, BOSCH + SOHN GmbH & Co KG). A detailed list of all variables collected can be found in the study protocol [30]."

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subitem not at all important	0	0	0	0	0	essential		
Does your paper address su			ot text					
No use of online questionnaire	No use of online questionnaires occurred in this study.							
6a-ii) Describe whether and defined/measured/monitor Describe whether and how "us defined/measured/monitored important process outcomes"	ed se" (includi (logins, log	ng intens gfile anal	sity of us ysis, etc.	e/dosag). Use/ad	e) was doption n	- ,		
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6a-iii) Describe whether, how, and when qualitative feedback from participants was obtained

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

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Does your paper address subitem 6a-iii?

Copy and paste relevant sections from manuscript text

"During these medical examinations, participants had the opportunity to provide qualitative feedback."

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

Does your paper address CONSORT subitem 6b? *

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

No changes in trial outcomes were made.

7a) How sample size was determined

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

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

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

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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

"The sample size was calculated to be 150 based on the primary outcome of body weight [31]."

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, as no interim analysis was performed.

8a) Method used to generate the random allocation sequence NPT: When applicable, how care providers were allocated to each trial group

B

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

"Permuted block randomization was performed to obtain an approximately equal distribution in both study groups. Variable block sizes of 4, 6, and 8 were used for this purpose. The allocation sequence was created by SEVERA using RITA software (Version 1.50; Universität zu Lübeck) [30,31]. Randomization was performed automatically after online registration of the study participants."

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

"Permuted block randomization was performed to obtain an approximately equal distribution in both study groups. Variable block sizes of 4, 6, and 8 were used for this purpose. The allocation sequence was created by SEVERA using RITA software (Version 1.50; Universität zu Lübeck) [30,31]. Randomization was performed automatically after online registration of the study participants."

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

Information on this can be found in the associated study protocol. doi: 10.3390/ijerph19031393

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

Does your paper address CONSORT subitem 10? *

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

"The allocation sequence was created by SEVERA using RITA software (Version 1.50; Universität zu Lübeck) [30,31]."

Further information on this can be found in the associated study protocol.

doi: 10.3390/ijerph19031393

11a) If done, who was blinded after assignment to interventions (for example, participants, care providers, those assessing outcomes) and how NPT: Whether or not administering co-interventions were blinded to group assignment

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

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

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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

"Because study participants can recognize their allocated intervention, blinding was not possible. Outcome assessors were blinded until completion of the analysis [30]."

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

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

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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

"Because study participants can recognize their allocated intervention, blinding was not possible."

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

"Both interventions were fully automated and without human involvement. The intervention group received an interactive web-based health program. The multimodal web-based..."
"In contrast, the control group received noninteractive web-based information on how to lose weight by lowering dietary energy density while eating healthy. This noninteractive information was transmitted by short articles and was intended to serve the transfer of knowledge. This was a static intervention, meaning that no change in content occurred over the course of the 12 weeks.

Both groups were allowed to use or rerun their program following the 12-week intervention period. Thus, the corresponding program was freely available during the follow-up. Further details about the intervention can be found in the study protocol [30,31]."

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

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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

"R (Version 4.1.3; R Core Team) and R Studio (Version 2021.09.1; Posit PBC) were used for statistical analysis and creation of the graphs. Statistical analysis of all variables was performed with robust linear mixed models using the R packages Ime4 [38] and robustImm [39]. The significance level was set at .05 for all comparisons. Graphs of descriptive results of anthropometric variables were created using the R package ggplot2 [40].

Per-protocol (PP) and intention-to-treat (ITT) analyses were performed. In the PP analysis, only subjects without missing values for the respective variable were included (complete cases). If missing data were available for individual outcomes, fewer study participants were considered accordingly. In the ITT analysis, all randomized cases were included. Missing values were imputed by multiple imputation (n=50) using the R package micemd [41]. PP and ITT analyses showed similar results across all variables. Owing to the large number of variables, only the ITT analysis has been presented here."

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]).

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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

"In the ITT analysis, all randomized cases were included. Missing values were imputed by multiple imputation (n=50) using the R package micemd [41]."

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

Does your paper address CONSORT subitem 12b? *

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

No additional analyses were performed.

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

X26-i) Comment on ethics committee approval

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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

"This study followed the principles of the Declaration of Helsinki. The study was approved by the Ethics Committee of the University of Freiburg on July 25, 2019 (vote number: 237/19). A clinical pilot study was conducted (vote number: 409/18, DRKS00016512), resulting in minor changes to the study protocol. These changes were positively assessed by the Ethics Committee (date of approval: October 22, 2019; protocol version: amendment 01). Written informed consent was provided by all participants prior to study inclusion."

x26-ii) Outline informed consent procedures

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

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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

"Written informed consent was obtained for registration." Further information on this can be found in the associated study protocol. doi: 10.3390/ijerph19031393

X26-iii) Safety and security procedures

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

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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

Information on this can be found in the associated study protocol. doi: 10.3390/ijerph19031393

RESULTS

13a) For each group, the numbers of participants who were randomly assigned, received intended treatment, and were analysed for the primary outcome NPT: The number of care providers or centers performing the intervention in each group and the number of patients treated by each care provider in each center

Does your paper address CONSORT subitem 13a? *

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

"Figure 1. Flow chart depicting participant recruitment and dropout."

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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

"Figure 1. Flow chart depicting participant recruitment and dropout."

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.

subitem not at all essential

Does your paper address subitem 13b-i?

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

A comprehensive analysis of usage data from this overall project (3 online RCTs: doi: 10.1186/s13063-021-05470-8. and 2 clinical RCTs: doi: 10.3390/ijerph19031393) will be submitted in a timely manner. In this clinical RCT, multiple use was consistently seen in the intervention group.

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

"Recruitment of participants took place from January 2020 to July 2020."

"Medical examinations took place at baseline (t0), after the 12-week intervention (t1), and after an additional 6 months (t2) and 12 months (t3) of 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"

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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

The study took place during the COVID-19 pandemic. This is taken up in the discussion.

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

The study was not stopped or ended earlier.

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

"Table 1. Baseline (t0) characteristics of the study participants."

15-i) Report demographics associated with digital divide issues

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

subitem not at all o o essential important

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

Demographics are examined in the associated online questionnaire study. This was not examined in the clinical substudy.

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.

subitem not at all important of the sessential

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

Usage behavior is comprehensively examined in another analysis. In this analysis, we distinguish only between intervention groups.

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).

subitem not at all important of the substance of the subs

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

"Owing to the large number of variables, only the ITT analysis has been presented here."

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

Effect sizes for each variable can be found in the Multimedia Appendix.

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).

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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

A comprehensive analysis of usage data from this overall project (3 online RCTs: doi: 10.1186/s13063-021-05470-8. and 2 clinical RCTs: doi: 10.3390/ijerph19031393) will be submitted in a timely manner. In this clinical RCT, multiple use was consistently seen in the intervention group.

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

No binary outcomes are reported.

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

"Owing to the large number of variables, only the ITT analysis has been presented here."

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).

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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

Not applicable, as such an analysis was not performed.

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

"None of the health reasons of the dropouts were associated with the intervention."

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].

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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

Not applicable, as this did not occur.

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.

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

Meine Antwort

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).

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subitem not at all o o essential important

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 finding of this study was that the interactive web-based health program focusing on dietary energy density showed positive effects on body weight, fat mass, and waist circumference. These effects were significantly more pronounced in the intervention group than in the control group with only web-based knowledge transfer and were also evident in the longer-term 12-month follow-up period. With regard to short-term weight loss from web-based interventions (3-4 months), comparable interventions reported short-term weight loss of 2.0 kg [42], 2.3 kg [43], and 4.2 kg [44], while the participants in the intervention group in this study lost 3.98 kg in the ITT analysis. At the 12-month follow-up, the weight loss of participants in the intervention group in this study was 4.18 kg in the ITT analysis, which is above the reported weight loss for comparable interventions of 0.9 kg [45] and 2.1 kg [46] after 12 months. In a recent meta-analysis, weight loss for web-based interventions ranged from 1.3 to 6.2 kg [25]. With 3.98 to 4.18 kg weight loss in the intervention group, depending on the time of measurement, the weight loss for the interactive web-based intervention..."

22-ii) Highlight unanswered new questions, suggest future research Highlight unanswered new questions, suggest future research.							
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subitem not at all important	0	0	0	0	0	essential	
Does your paper address sul Copy and paste relevant sectio "like this" to indicate direct quo	ns from tl	he manu		•	-		
providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study							
"Future research should consider in more detail what and how much interactivity is necessary to make web-based weight loss interventions effective."							
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.							
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subitem not at all important	0	0	0	0	0	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

"Several limitations must be considered in this study. First, complete blinding was not possible due to the recognition of the program by the participants. Therefore, the motivation of the participants might have been influenced based on the recognition of the program. Second, both study groups might have been additionally motivated to attain their health goals by interest in free medical examinations as well as activity trackers received as incentives. Conversely, the participants of the clinical substudy might have been more motivated than the participants of the online study already at the beginning, since participation in medical examinations required more commitment. Third, the effect of the COVID-19 pandemic on both groups was difficult to quantify. Qualitative..."

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

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subitem not at all important	0	0	0	0	0	essential

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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

"Second, both study groups might have been additionally motivated to attain their health goals by interest in free medical examinations as well as activity trackers received as incentives. Conversely, the participants of the clinical substudy might have been more motivated than the participants of the online study already at the beginning, since participation in medical examinations required more commitment."

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 cointerventions) 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.

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

See Limitations: "Second, both study groups might have been additionally motivated to attain their health goals by interest in free medical examinations as well as activity trackers received as incentives."

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

Trial Registration: German Clinical Trials Register DRKS00020249; https://drks.de/search/en/trial/DRKS00020249

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

doi: 10.3390/ijerph19031393

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 project was funded by Techniker Krankenkasse (German Health Insurance Company). The project funder had no influence on the planning and implementation of the study, the analysis and interpretation of the data, or the publication of the results."

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.

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subitem not at all important

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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

"The Department of Sport and Sport Science (JK, JB, RW, DK, and RF) and Section for Health Services Research and Rehabilitation Research (SEVERA) (MS, IT, EF, CA, UAF, and PM) were commissioned by Techniker Krankenkasse (German Health Insurance Company) for the scientific evaluation of the web-based health program. JK, JB, and DK report funding from Techniker Krankenkasse for clinical trial design, implementation, and scientific evaluation. CC and AG declare that they have no conflicts of interest. RW, RF, MS, IT, EF, CA, UAF, and PM report funding from Techniker Krankenkasse for the design, implementation, and scientific evaluation of the online trial."

About the CONSORT EHEALTH checklist

As a result of using this checklist, did you make changes in your manuscript? *
yes, major changes
yes, minor changes
O no

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

Meine Antwort

How much time did you spend on going through the checklist INCLUDING making * changes in your manuscript
It took me 2 hours.
As a result of using this checklist, do you think your manuscript has improved? *
yes
O no
O Sonstiges:
This would involve for example becoming involved in participating in a workshop and writing an "Explanation and Elaboration" document yes no Sonstiges:
Auswahl löschen
Any other comments or questions on CONSORT EHEALTH
Meine Antwort

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