

Article information: <https://dx.doi.org/10.21037/mhealth-22-48>

### Reviewer A

This article reviews a research protocol for an app called "Pancreas Plus" that will be utilized by patients, caregivers, and healthcare team members. In general, the article flows well and the reader is able to understand the plan for app development. There were multiple spelling errors such as inconsistent capitalization of letters throughout the text and in the tables that needs revision/attention to. Additionally, "Unipancreas" and "UniPancreas" are both used and this should be kept consistent throughout the paper.

*We would like to thank Reviewer A for the insightful comments. We corrected all the typos and checked the spelling and format of all words (including UniPancreas/Unipancreas).*

Additionally,

1. Some additional information on the organization UniPancreas would be helpful.

*Thanks for raising this point. The following information has been added:*

*Unipancreas is a non-profit entity devoted to spreading knowledge and supporting patients starting from the pancreatic cancer diagnosis. Unipancreas organizes events to connect patients and healthcare professionals in the field, with the goal of bridging the knowledge gaps that may constitute barriers in the care journey. Following its mission, Unipancreas has conceived the Pancreas Plus project [...]*

2. The discussion needs to be re-worked. The first sentence and second paragraph could be combined.

*Thanks for raising this point. The sentences have been combined.*

The last sentence of the second paragraph is confusing to read.

*Thanks for raising this point. The sentence has been rephrased as follows:*

*The co-design of the app has the aim to assess the patients' unmet needs and address them by offering a range of information about the treatment process and services. The specific content and options will be co-decided by the multiple stakeholders involved while designing the app, according to the defined needs and wishes.*

Additionally, details could be added to the discussion to make it more comprehensive

*Thanks for your input. The following part has been added to the text:*

*While multiple stakeholder engagement may be challenging due to the different expertise, background, goals, and feelings, several knowledge translation tools (21) will be employed to make the process as smooth as possible.*

*The project team will keep track about all the steps and actions, including the facilitators used, the issues raised, and the adopted solutions, so that the best practices and lessons learned can be beneficial in other contexts, with different pathologies or aiming at reaching different outcomes. The experience will be disseminated through scientific as well as practice publications, but also through events and clinical meetings with social media coverage.*

and the ending should be reworded for flow and a stronger concluding statement.

*Thanks for your input. The following part has been added to the text as a concluding statement:*

*While the project's expected primary outcome is a practical e-health tool that may be beneficial for patients but also for clinicians and researchers, we hope to consolidate a methodology that can successfully apply a co-design, co-learn, and co-production framework to other diseases.*

## **Reviewer B**

Overall: It is not clear what type of study this protocol aims to describe. It seems to fall under a clinical trial since you mention validation, implementation and in the discussion test of hypothesized benefits. However, you do not present a reporting checklist which makes a review against guidelines for study protocols hard.

Title: the specific study type is not included.

*We would like to thank Reviewer B for raising this point. Actually, the type of article has been co-decided with the Editorial Team. We do agree that our study is not a "proper" clinical protocol, as it does not follow all the usual steps that a medical protocol would require. Ours may be better defined as a "programme launch," as it describes an e-health programme devoted to patients.*

*However, the secondary aim of our study is to test the benefits of this innovative app for pancreatic patients.*

*We have edited the "Objective" section to address this comment.*

*Once the "Pancreas Plus" project is realized, the secondary step in our timeline will be to check the real benefits for pancreatic cancer patients of this multi-stakeholder engagement app in term of remote symptom control, hospital readmission, glycemic control, rehabilitation and nutritional assessment comparing patients app-user and patients who are not.*

Registration: It is unclear why registration is not needed.

*At this point, no registration is needed. Please see our argument above.*

Main text: The text does not follow any guidelines for study protocol, for instance SPIRIT. Especially the method section does not include plans for sample, data collection and data analysis, which is important for study replication. For instance, in the last phase, how will you collect feedback from patients and stakeholders and how will you analyze that data? The discussion section does not discuss potential challenges and solutions, and strengths and limitations of the protocol.

Author contribution: Is stated. However, the statement brings up contributions that are not described in the protocol, such as collection and assembly of data and data analysis and interpretation.

*Again, please see our argument above.*

Ethical statement: An ethical approval is not presented which is required if you are to test and validate the intervention since it collects sensitive data from and about

*At this point, we are not collecting any data from patients, and we are not using clinical data. A proper ethical case will be raised once medical data needs to be collected through the app, but it is not required at this stage while describing the launch of our Unipancreas programme.*

## **Reviewer C**

This is an important approach for a vulnerable cancer group which I hope will be fruitful. The paper is well-written (although now and then the English could be improved, see my yellow marks) and interesting. My textual comments are in the pdf that I attach.

*We would like to thank Reviewer C for his/her massive work on our manuscript and for reading our work so carefully. Almost all the comments included in the pdf file have been addressed and encompassed within the text.*

I have one major and one smaller content issue

The authors refer to Elwyn's model of co-production. This term is reserved for coproducing health/care for the individual patient, not for a group or carepath. The figure he uses, that you also use, is for the Individual. In design, one would co-create or codesign the app, and then doctor and patient use the app to coproduce the treatment plan. Please check carefully and adjust the text accordingly.

*Thanks for raising this point. We totally agree that, in their original framework model Elwyn and colleagues used it for individuals. However, the model has been later adapted for groups as well.*

*See, for instance, the Telemedicine initiative by Miceli et al. (PMID: 33442862 PMID: PMC7806439 DOI: 10.1007/s13187-020-01945-5).*

*To better clarify this point, the text has been amended by adding this phrase:*

*The project has four distinct phases, which are later described following the co-production framework of Elwyn et al. (11), as also reported by other collective experiences of multi-stakeholder engagement (18).*

*There are several works referring to the co-production model of care, which use a multi-stakeholders engagement approach with groups than a single medical doctor or patient, to co-design and co-produce a programme from the very beginning. See, for instance, the “Oncology in Motion” initiative by the National Cancer Institute of Aviano, Italy (PMID: 34376274 DOI: 10.1016/j.amjsurg.2021.07.053; PMID: 33169335 DOI: 10.1007/s13187-020-01920-0), that has already been reported in our paper.*

I totally miss burden, it is assumed that all this should be in the app, but given the generally sick and vulnerable patients, the generic items may be far too much. This is a point of attention and should be acknowledged.

*Thanks for raising this point. Actually, the content of the app should be co-designed and co-decided after the investigation and panel. We totally agree, that is why bridging the gaps between the frail and vulnerable patients’ needs and the physicians’ technical knowledge is vital to the project.*

Finally, a good precursor project would be that by Griffioen et al in Cancer Medicine in 2021, see my comment in the pdf, I would definitely refer to that one.

*Thanks for suggesting this valuable work by Griffioen and colleagues. We read it with great interest, and it now appears in our bibliography and in several parts throughout the text, for instance:*

*Moreover, the treatment path is particularly complex, and it requires several decision-making moments (4).*

[...]

*To our knowledge, no co-production programs have yet been devoted to pancreatic cancer patients (15), while experiences have been described about shared-decision making (4).*

[...]

*In such a scenario, the patient must be considered as an active integral part of the treatment path according to the co-production approach (4,11–14)*