

Peer Review Report

Review Report on Emotional and psychological safety in healthcare digitalization: A design ethnographic study

Original Article, Int J Public Health

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EVALUATION

Q 1 Please summarize the main findings of the study.

Thank you for the opportunity to review this manuscript. First, I have to disclaim that my experience with the ethnographic method is limited. I recommend at least one review by a scientist familiar with this method. For other aspects of qualitative research and experiences in public health and safety issues, here are my recommendations and suggestions for possible improvement:

The authors report on a qualitative ethnographic research project about the emotional and psychological safety of digital technology (DT). They use a set of 10 use cases of different "DT" in an iterative approach with three steps comprising interviews, visualizations, and other techniques from qualitative research. The study was conducted on a limited number of healthcare providers and healthcare receivers.

Q 2 Please highlight the limitations and strengths.

The strength of this study is also its main limitation, as it concentrates on a broad spectrum of very different digital technologies with more or less complexity, dependability and controllability.

This gives readers a bigger picture. On the other hand, it remains unclear what bias may be present in this approach, especially as the number of participants is low and distributed among the different use cases, with partially only one contributor per case.

Concerning the research method, the researchers combine a bundle of qualitative methods to enhance validity and reliability.

Q 3 Please provide your detailed review report to the authors. The editors prefer to receive your review structured in major and minor comments. Please consider in your review the methods (statistical methods valid and correctly applied (e.g. sample size, choice of test), is the study replicable based on the method description?), results, data interpretation and references. If there are any objective errors, or if the conclusions are not supported, you should detail your concerns.

MAJOR COMMENTS

0. Abstract

The Abstract should present deeper details – especially concerning the number of participants distributed among different use cases. The results should clearly state the novelty of this project.

1. Introduction

The introduction is very brief and does not sufficiently develop the rationale. It remains unclear why the authors conducted this research to close a knowledge gap (What is the Problem? How many people are negatively influenced by ES/PS Issues—are there numbers? What has been found in the preceding study in

references 13?). This is outlined in one sentence only and may be extended for better clarity for readers in public health who may not be proficient with ES/PS and this type of research methodology. Further, the ES/PS definitions are related to only two references (ref 7+9), which are a single study on robotic safety (7) and a study on dementia (9). Both are not general studies, reviews, or frameworks. A brief google scholar search shows manifold studies and reviews on this issue.

2. The references in the Introduction are primarily qualitative research items from different healthcare aspects and diseases but are represented in a general manner. In my opinion, the authors should add more quantitative or additional references or describe the focused aspects of the studies without generalizing them. Again: What is the problem? Is this problem quantifiable for public health? What do the problems mean for patients, relatives, society, economy, and public health?

3. It remains unclear why the authors chose these "use cases," which comprise digital technologies of different characters, complexity (from simple devices to robots), and dependability concerns for patients. For example, VR Technology has other issues of dependability in contrast to an insulin pump or an AVNRT monitor.

4. The interview partners per case are only 1–2 participants per use case. Why did the authors choose small numbers but cover a broad spectrum of medicine, leaving many gaps? Was data saturation achieved, or is it a study on feasibility indicating the need for more qualitative research in the different areas of interest?

5. Measurements remain unclear for me. Readers do not read how the research was conducted: Who were the scientists, what are their qualifications, and how were they trained? Did one or two interviews conduct the study? Where did the recruitment take place? Are the participants Europeans, Americans, Africans, Australians, or Asians? What country do they come from? What is the techno-medical infrastructure and background? What is the cultural and technological context of these persons? How was digital affinity tested? Based on this limited information, it seems not possible for me to re-construct this study. Consequently, a brief detailed flowchart like in Figure 1 could help to understand the methodology better.

6. The measurement included family members in one case. The authors should state why they used family members in their methodology. This important and interesting issue could be discussed in more detail, as family members are the backbone of patient safety outside healthcare settings.

7. "Use cases" could be described a bit more deeply for readers. What is it in detail? Why were they chosen? Why assume authors, that these cover all spectra of DT? How was this decision made?

8. Data collection comprises several qualitative techniques. This might be challenging for readers of a public health paper. It would be appropriate to describe these techniques briefly, either in the main document or as a supplemental. This way, readers not familiar with the techniques would have to search the web for definitions.

9. Time was increased to the participant count: were there group interviews or single sequential Interviews? Please give more information about this.

10. In the discussion the differentiation of ES and PS impact could be more detailed – if possible.

MINOR

- Abbreviations should be introduced (HCR, FM, ...).
- The use of too many abbreviations is confusing, and the paper is not easy to read with so many abbreviations.
- Line 189 – is this a point of digital competence and error – or just sexism or negative halo effects?
- Figures are blurred and not easy to read.

PLEASE COMMENT

Q 4 Is the title appropriate, concise, attractive?

The title comprises "learning" as the main word without learning being a central issue in the manuscript. We may learn from science every time, but it may be a little bit displaced in the article title. The authors may consider to modify the title leaving out "learning": e.g. "Emotional and psychological safety in healthcare digitalization: a Design ethnographic study"

Q 5 Are the keywords appropriate?

yes

Q 6 Is the English language of sufficient quality?

I am no native English speaker. However, sentences are written chiefly in passive mode, which may be changed to active mode.

Q 7 Is the quality of the figures and tables satisfactory?

No.

Q 8 Does the reference list cover the relevant literature adequately and in an unbiased manner?)

see above.

QUALITY ASSESSMENT

Q 9 Originality



Q 10 Rigor



Q 11 Significance to the field



Q 12 Interest to a general audience



Q 13 Quality of the writing



Q 14 Overall scientific quality of the study



REVISION LEVEL

Q 15 Please make a recommendation based on your comments:

Major revisions.