

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Clinical information quality of digital health technologies: protocol for an international eDelphi study.
AUTHORS	Fadahunsi, Kayode; Wark, Petra; Mastellos, Nikolaos; Gallagher, Joseph; Majeed, Azeem; Car, Josip

VERSION 1 – REVIEW

REVIEWER	Khawagi, Wael The University of Manchester
REVIEW RETURNED	05-Dec-2021

GENERAL COMMENTS	<p>This is a well written manuscript and address an important and relevant topic. I only have few minor comments and suggestions.</p> <p>Method: Study procedures sub section: I think more more details are needed in this section. it is important to clarify the criteria used for rating 'relevance' and the used scale '5 point Likert scale'. Also, explaining that there are two parts in the eDelphi survey. The first part will explore the 'relevance', while the second part will explore the 'modification'? this only mentioend in the analysis plan.</p> <p>The authors state "The study will start with purposive nomination of the panellists by the members of the steering committee" It is not clear how the initial participants will be identified? will only participants known to the steering committee will be invited? or will there be other sources? what are the limitations of only inviting participants known to the steering committee ?</p> <p>Discussion: The limitation could acknowledge the potential bias of using purposive sampling.</p> <p>Data analysis plan: Page 11 line 18 the authors state"The feedback on the free text suggestions and the changes that have been made "this" will be incorporated into the subsequent round of the survey." I believe 'this' is a typographical error.</p>
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REVIEWER	Matricardi, Paolo Charite Universitatsmedizin Berlin
REVIEW RETURNED	03-Feb-2022

GENERAL COMMENTS	<p>Title: Clinical information quality of digital health technologies: protocol for an international eDelphi study.</p> <p>In this manuscript the Authors describe an instrument for assessing the quality of clinical information produced by digital health technologies based on evidence from literature. This instrument has been developed by the Authors, and aims at obtaining inputs of healthcare professionals who have used information from digital health technologies in patient care. Using an electronic Delphi approach, 50 healthcare professionals will participate in up to 3 rounds of the survey.</p> <p>General comments:</p> <p>The authors provide a comprehensive study protocol for an eDelphi study to evaluate tools for the assessment of clinical information quality related to digital health technologies. As the amount of digitally obtained and/or channeled information is increasing steadily, the topic is of utmost importance for the research, clinical and governance community.</p> <p>The protocol is well established and presented in detail.</p> <p>Specific comments:</p> <p>1. Page 9 Line 6: why „patient“ information leaflet? To my understanding only experts and no patients are involved. Maybe “participant” information leaflet?</p> <p>2. Recruitment procedures: the nomination of panelists by members of the steering committee who also developed the CLIQ Framework may lead to a selection bias: a) members of the steering committee may tend to recruit preferentially colleagues they personally know; b) targeted panelists that know/esteem the members of the steering committee may preferentially accept to volunteer for the study; c) please also comment and consider comparing responses of the first level of the snowball technique to other participants when analyzing the data to check for a potential bias.</p>
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VERSION 1 – AUTHOR RESPONSE

	Comments	Response
	Reviewer: 1	
1	This is a well written manuscript and address an important and relevant topic. I only have few minor comments and suggestions.	Thank you
2	Method: Study procedures sub section: I think more details are needed in this section. It is important to clarify the criteria used for rating ‘relevance’ and the used scale ‘5 point Likert scale’.	Thank you. We have now added more details as below under generation of initial items: “The relevance of the dimensions will be assessed based on the panellists’ perspective on the relevance of the IQ dimensions to quality and safety of care using a 5-point Likert scale. This captures different range of options and allows to distinguish between

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		categories that people make naturally, without a strong cognitive load (strongly relevant, somewhat relevant, neither relevant nor irrelevant, somewhat irrelevant and strongly irrelevant).”
3	Also, explaining that there are two parts in the eDelphi survey. The first part will explore the ‘relevance’, while the second part will explore the ‘modification’? this only mentioned in the analysis plan.	Thank you. We have now added more details for clarity under generation of initial items: “Thus, the survey questions relating to the CLIQ Framework are divided into two parts. The first part will explore the relevance of the dimensions in the CLIQ Framework from the perspective of the panellists. The second part will obtain their suggestions on modification to the definitions, assessment and categories of the IQ dimensions in the CLIQ Framework.”
4	The authors state "The study will start with purposive nomination of the panellists by the members of the steering committee" It is not clear how the initial participants will be identified? will only participants known to the steering committee be invited? or will there be other sources? what are the limitations of only inviting participants known to the steering committee?	We have added more details for clarity: “Steering committee members will be asked to nominate panellists both within and beyond their professional networks. Nomination of the panellists by the steering committee members will be based on the pre-determined eligibility criteria discussed above, subject to confirmation by another committee member who will check the profile of the nominees against the eligibility criteria. Each of the panellists will be invited by an introductory email containing a brief overview of the study and the link to the survey. The snowball sampling technique will then be used to recruit additional panellists by asking the nominated panellists to share the eDelphi invitation to other eligible participants. Questions about participants’ occupation and prior digital health experience will be included in the survey to further confirm the eligibility of the panellists”
5	Discussion: The limitation could acknowledge the potential bias of using purposive sampling.	We have now acknowledged the selection bias risk and identify strategies we intend to use to reduce the risk. “We acknowledge that the initial nomination of the panellists may lead to selection bias as steering committee members may tend to recruit colleagues they know personally, rather than via their wider professional networks. These colleagues may be more likely to participate than people invited through other sources. We have therefore put in place multiple measures to reduce the risk of selection bias. The snowball sampling technique will ensure that only a fraction of participants will likely be recruited directly by the steering committee members. The eDelphi approach will make it impossible for any of the panellists to dominate the decision-making process. Finally, we will compare the responses of the

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		panellists who were recruited directly and those who were recruited by snowball techniques.”
6	<p>Data analysis plan: Page 11 line 18 the authors state "The feedback on the free text suggestions and the changes that have been made "this" will be incorporated into the subsequent round of the survey." I believe 'this' is a typographical error.</p>	"this" has been deleted. Thank you.
	Reviewer: 2	
7	<p>Title: Clinical information quality of digital health technologies: protocol for an international eDelphi study. In this manuscript the Authors describe an instrument for assessing the quality of clinical information produced by digital health technologies based on evidence from literature. This instrument has been developed by the Authors, and aims at obtaining inputs of healthcare professionals who have used information from digital health technologies in patient care. Using an electronic Delphi approach, 50 healthcare professionals will participate in up to 3 rounds of the survey.</p>	Thank you for this concise description of the study.
8	<p>The authors provide a comprehensive study protocol for an eDelphi study to evaluate tools for the assessment of clinical information quality related to digital health technologies. As the amount of digitally obtained and/or channelled information is increasing steadily, the topic is of utmost importance for the research, clinical and governance community.</p>	Thank you
9	<p>The protocol is well established and presented in detail.</p>	Thank you

	Comments	Response
10	Page 9 Line 6: why “patient” information leaflet? To my understanding only experts and no patients are involved. Maybe “participant” information leaflet?	“Patient” has been replaced by “Participant”
11	<p>Recruitment procedures: the nomination of panellists by members of the steering committee who also developed the CLIQ Framework may lead to a selection bias</p> <p>a) members of the steering committee may tend to recruit preferentially colleagues they personally know;</p> <p>b) targeted panellists that know/esteem the members of the steering committee may preferentially accept to volunteer for the study;</p> <p>c) please also comment and consider comparing responses of the first level of the snowball technique to other participants when analysing the data to check for a potential bias.</p>	<p>We have now acknowledged the selection bias risk and identify strategies we intend to use to reduce the risk:</p> <p>“We acknowledge that the initial nomination of the panellists may lead to selection bias as steering committee members may tend to recruit colleagues they know personally, rather than via their wider professional networks. These colleagues may be more likely to participate than people invited through other sources. We have therefore put in place multiple measures to reduce the risk of selection bias. The snowball sampling technique will ensure that only a fraction of participants will likely be recruited directly by the steering committee members. The eDelphi approach will make it impossible for any of the panellists to dominate the decision-making process. Finally, we will compare the responses of the panellists who were recruited directly and those who were recruited by snowball techniques.”</p>

VERSION 2 – REVIEW

REVIEWER	Khawagi, Wael The University of Manchester
REVIEW RETURNED	04-Mar-2022
GENERAL COMMENTS	Thank you for the opportunity to review the revised manuscript. The authors have addressed all my concerns, and I have no further questions or comments.