PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Multidimensional analysis of factors responsible for the low prevalence of ambulatory peritoneal dialysis in Germany (MAU-PD): A cross-sectional Mixed-Methods Study Protocol
AUTHORS	Scholten, Nadine; Ohnhaeuser, Tim; Schellartz, Isabell; von Gersdorff, Gero; Hellmich, Martin; Karbach, U.; Pfaff, Holger; Samel, Christina; Stock, Stephanie; Rascher, Katherine; Mettang, Thomas

VERSION 1 - REVIEW

REVIEWER	Yavuz Ayar Bursa State Hospital/ Turkey
REVIEW RETURNED	05-Nov-2018

GENERAL COMMENTS	The study does not reveal new data. The generalization of data with only 12 patients interview is not sufficient. The part of discussion can be enriched too. The study can be organized with larger interviews. It should be re-designed with the integrity of the text.

REVIEWER	Paul Gill School of Healthcare Sciences, Cardiff University, Cardiff, Wales, UK
REVIEW RETURNED	03-Dec-2018

GENERAL COMMENTS	This is a very interesting and timely study protocol, which has significant potential to inform practice, policy, education and further related research. There are, however, several areas that would benefit from further clarity (see below): Specific comments: • Introduction, p3, line 28-29; I would suggest adding in 'PD is 'primarily' a home based treatment' to your sentence. • Introduction, p3, international PD comparisons are very helpful but I would suggest adding in one EU country to provide some regional context to the data. • Introduction, p3, line 45-46 ' specifically, available HD capacity....' it would be helpful to provide some brief clarity here re how this is a perceived disincentive. You provide further clarity on the next page, so I'd try to avoid repetition. You may therefore want to consider how and where best to discuss this issue. • Introduction, p3, line 50; '.... as his attitude'; presumably this might also be her attitude? Please amend.

	• Introduction, p3, line 53 '...more PD training leads to...' please clarify more PD training for who? E.g. more training for health professionals leads to... • Introduction, p3, the final sentence is confusing (as an ambulatory treatment...) particularly after [13] please review and consider amending. • Introduction, p4; I would suggest provide an evidence based rational re potential benefits of PD for patients, health and social care services etc, to help provide better insight into why this research is really needed, over and above, this would be interesting to do. I get some sense that patients would prefer it but no real rationale re these are the potential benefits and therefore this is why we really need to find out what the issues are the are limiting uptake/use on PD • Methods, p4, lines 56-57 '...and qualitative and quantitative survey data'. This sentence reads like qualitative data are also survey data. I would suggest you amend the wording so the reader can establish that you will be collecting qualitative data and quantitative survey data. • Admin data, p5-6; it might be helpful here to either clarify whether you anticipate these data to be reliable and valid OR offer some insight into the fact that reliability/validity (or equivalents) will be considered when reviewing such data. • Qualitative data p6; what is Kuckartz? It would be helpful to identify an established method of content analysis (or thematic analysis). Some brief insight into sampling/recruitment for interviews and focus groups would be helpful. • Quantitative data, p7; do you plan to pilot your questionnaires or have a strategy for considering reliability/validity, prior to full data collection? • Dissemination, p9, I realise word limits are tight, but given the issues raised, some clarity re strategies to maximise reach and impact with patients/relatives would be helpful, as also informing them of such treatment options/benefits seems key to facilitating potential change. I hope you find these comments helpful. Good luck with your study.

VERSION 1 – AUTHOR RESPONSE

Reviewer Name: Yavuz Ayar

Institution and Country: Bursa State Hospital/ Turkey Please state any competing interests or state 'None declared': None

The study does not reveal new data. The generalization of data with only 12 patients interview is not sufficient. The part of discussion can be enriched too. The study can be organized with larger interviews. It should be re-designed with the integrity of the text.

Reply to the Reviewer 1:

We would like to thank the reviewer fort he comments on the manuscript. As far as we know there is no study focussing on the various factors influencing the choice of the dialysis mode, focusing on the perspective of the patients and providers. The study is a mixed methods study with qualitative and quantitative study parts. The qualitative study (interviews with 12 patients) aims at getting greater insights into this topic and to develop the questionnaire on the qualitative findings. After 12 interviews

we expect to reach a certain level of theoretical saturation. If this is not the case we will perform further interviews.

This aspect has been added to the manuscript:

„The number of interviews will be adapted with respect to the saturation point. “

Reviewer 2:

We would like to thank the reviewer for careful and thorough reading of this manuscript and for the thoughtful comments and constructive suggestions. It was really helpful to us. Please find in the following the Referees comments and suggestions in grey and our reply and changes in black.

Reviewer Name: Paul Gill

Institution and Country: School of Healthcare Sciences, Cardiff University, Cardiff, Wales, UK Please state any competing interests or state ‘None declared’: None declared

This is a very interesting and timely study protocol, which has significant potential to inform practice, policy, education and further related research. There are, however, several areas that would benefit from further clarity (see below):

Specific comments:

• Introduction, p3, line 28-29; I would suggest adding in ‘PD is ‘primarily’ a home based treatment’ to your sentence.

Thank you for your very helpful comment. Added ‘primarily’ to our sentence:

…., while peritoneal dialysis is a primarily home-based treatment option.

• Introduction, p3, international PD comparisons are very helpful but I would suggest adding in one EU country to provide some regional context to the data.

International comparison reveals a wide variation in PD proportion. Japan has a rate of only 3%, while PD patients make up about 10% of dialysis patients in Spain, 19% in Finland, 20.2% in Australia, 29.6% in New Zealand and 73% in Hong Kong [2–4].

• Introduction, p3, line 45-46 ‘ specifically, available HD capacity....’ it would be helpful to provide some brief clarity here re how this is a perceived disincentive. You provide further clarity on the next page, so I’d try to avoid repetition. You may therefore want to consider how and where best to discuss this issue.

To make it clearer, we deleted the sentence on p3, line 45-46, as it is discussed on the next page.

• Introduction, p3, line 50; ‘.... as his attitude’; presumably this might also be her attitude? Please amend.

We amended „her attitude“: The treating physician has a key role, as his or her attitude towards PD has a major influence on the treatment decision [9, 11].

• Introduction, p3, line 53 ‘...more PD training leads to...’ please clarify more PD training for who? E.g. more training for health professionals leads to...

We added: Consequently, more PD training for health professionals leads to more patients being treated with PD [12].

• Introduction, p3, the final sentence is confusing (as an ambulatory treatment...) particularly after [13] please review and consider amending.

Thank you. We rearranged the sentence:

As PD is an ambulatory treatment, it does not play a significant role in nephrologists' medical specialisation training in Germany, which takes place within the hospital setting [13]. This could be a reason for providers' apparent reluctance to use PD.

• Introduction, p4; I would suggest provide an evidence based rational re potential benefits of PD for patients, health and social care services etc, to help provide better insight into why this research is really needed, over and above, this would be interesting to do. I get some sense that patients would prefer it but no real rationale re these are the potential benefits and therefore this is why we really need to find out what the issues are the are limiting uptake/use on PD

Thank, you for your very appreciated remark. Although it was so evident for us, we did not mention the evidence based rationale. Therefore we added the following sentence:

There are no significant differences in mortality between HD and PD patients [24], but PD patients report higher quality of life and a more self-determined life [25, 26]. As PD is also more cost-effective [27], it is important to know more about the reasons for the low PD rate in Germany.

• Methods, p4, lines 56-57 '...and qualitative and quantitative survey data'. This sentence reads like qualitative data are also survey data. I would suggest you amend the wording so the reader can establish that you will be collecting qualitative data and quantitative survey data.

The mixed-methods study will be based on several data sources, including administrative data, quality-assurance data and qualitative data, and quantitative survey data.

• Admin data, p5-6; it might be helpful here to either clarify whether you anticipate these data to be reliable and valid OR offer some insight into the fact that reliability/validity (or equivalents) will be considered when reviewing such data.

Appropriate precautionary measures will be taken with regard to the analysis of the claims data. The Good Practice of Secondary Data Analysis (GPS): guidelines and recommendations [29] will be followed, as the data is collected for reimbursement, not for scientific reasons. This might be a threat to the validity of the data and has to be addressed.

• Qualitative data p6; what is Kuckartz? It would be helpful to identify an established method of content analysis (or thematic analysis). Some brief insight into sampling/recruitment for interviews and focus groups would be helpful.

Thank you for this note. We tried to clarify that we used Kuckartz' approach [23] of contentstructuring analysis and added some more information regarding the recruitment of participants and how we plan to conduct the qualitative interviews and focus groups.

[…]Due to the focus on decision making, interviewees will be selected from patients who started dialysis within the last two years. The number of interviews will be adapted with respect to the saturation point. Participants will be recruited via regional patient organisations […] Providers will be recruited at specialists' conventions and by phone; the focus groups will then take place either during a specialists' conference or at our institute. […] Content analysis will be conducted afterwards, and categories will be built in workshops together with the research team. MAXQDA software will support

the coding and analysis of the text material. Analysis will follow Kuckartz's contentstructuring approach. [28]

• Quantitative data, p7; do you plan to pilot your questionnaires or have a strategy for considering reliability/validity, prior to full data collection?

Thank you for the important note, which led us to mention the pre-tests of all our questionnaires.

All questionnaires will be pre-tested by either providers or patients regarding consistency, length and clarity prior to full data collection.

• Dissemination, p9, I realise word limits are tight, but given the issues raised, some clarity re strategies to maximise reach and impact with patients/relatives would be helpful, as also informing them of such treatment options/benefits seems key to facilitating potential change.

We are hopefully looking forward to a broad dissemination of contents/results/help for patients and relatives and try to find solutions to reach this aim. Another approach is reducing barriers towards PD on the nephrologists' side. We described the idea (under negotiation) to add contents to an existing professional education platform.

Results and experts' contacts are planned to be integrated in a physicians' education platform to reduce professional barriers and support knowledge sharing in PD.

I hope you find these comments helpful. Good luck with your study.

VERSION 2 – REVIEW

REVIEWER	Dr Paul Gill School of Healthcare Sciences, Cardiff University, Wales, UK
REVIEW RETURNED	05-Feb-2019

GENERAL COMMENTS	Many thanks for submitting this revised manuscript, which is now much clearer following the revisions made as a result of the original review(s). I believe this protocol will be of interest to those working in the field and I wish you luck with your study