Author's response to reviews

Title: Physicians' communication with patients about adherence to HIV medication in San Francisco and Copenhagen: A qualitative study using Grounded Theory.

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Author's response to reviews: see over
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To The Editor
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Re: MS 6510877238746981

Physician’s communication with patients about adherence to HIV medication in San Francisco and Copenhagen: A qualitative study using Grounded Theory.

Thank you for three excellent reviews.

Hereby the revised manuscript and our responses to the concerns. After having revised the manuscript according to the reviewers’ concerns, we have also had a professional writer review the manuscript for grammar.

We hope you find the manuscript satisfactory now.

Kind regards, – on behalf of the authors

Toke Barfod

Re: Rakhi Dandona’s report (reviewer #1):

Major compulsory revisions:

1) We have now reviewed our data, and information on patient’s sex and ethnicity is now included in the text along with a more thorough explanation of why we did no collect exact data on age and mode of transmission. We have included our estimates of the patient’s age, as guessed from their visual appearance, and a calculated mean and range. We have also provided a general estimate of the transmission routes in the two settings. We have now gathered all this information together with the previous text about patient characteristics under a new headline: “Patients and consultations observed” in the end of the methods section (p 9 -10). We have gathered the original text about the settings and physicians under another headline: “Settings and physicians” earlier in the methods section (p. 7).

2) Please see above

3) In the first paragraph of the text under the headline “Procedures and analysis” we have now added the following statement to the paper (p. 7):

   a. These comments were included as further data to verify, correct and broaden the observations and interpretations of the researcher.

4) We have now added the following note in the methodology section (under the headline “qualitative research approach”) (p. 6):
a. “In Grounded Theory, data are analyzed concurrently with data collection and the main issues are allowed to emerge during coding and conceptualization of data [22,25]. In Grounded Theory, the coding process is divided into two or three stages. First, coding is “open” and in the end it becomes “selective” [22,25]. Strauss and Corbin furthermore describe an intermediate “axial” coding stage, where the concepts are organized into a “conditional matrix” [25]. In this study, we used much of Strauss and Corbin’s practical advice for the analytic process, while following Glaser’s advice not to force the data into a predefined “conditional matrix.”.

4b) We have also added a few extra lines in the existing paragraph about the analytical process (under the headline: “Procedures and analysis”). Now the text goes (added lines underscored) (p. 8):

b. “In the analysis, all interviews were replayed on audio and all data were re-read several times. The transcribed interviews, as well as the notes on observations, were used as data. First, a brief summary of the observations and interview with each physician was written within one day of the interview. Then, during open coding, all notes on observations and the transcribed interviews were fragmented into meaning units (a few sentences or a paragraph), which were labeled with one or more concepts or statements. Concepts where developed both from the interviewed physicians’ own statements and the researcher’s interpretations. During the entire coding process, analytical memos on concepts were written, concepts were renamed, units of text were recoded, and recurring themes were noted [22,25]. After the open coding, we narrowed our focus to the communication process and related concepts to each other during selective coding. Theoretical relations between concepts (e.g., that XX leads to YY) were developed from analysis of observations as well as from interviews. During this process, several alternative models were developed and explored, and finally we ended up with a simple four-stage three-factor model. We did not arrive at a single core concept. For practical handling of the large amounts of conceptualized text, NVivo software was used (Version 2.0, by QSR International Pty).”

5) Regarding point a) and b): We have now corrected the table, so that it now includes a “total” column. We have also included an additional file with the requested percentage calculations (table 1b). However, we do not think it is appropriate to include the percentages in the main table of the paper, as the numbers are so small, that percentages become less relevant, and the table looses clarity. However, if the editors agree with the reviewer, that percentages should be included, our new table in the paper (table 1) can be replaced with the new additional table (table 1b) in the paper.

Regarding point c), we have added the following sentence in the middle of the first paragraph in the results section (under the headline: “Overview of findings and comparison of San Francisco and Copenhagen”) (p. 12):

”The physicians’ age, gender, experience and education did not emerge as main determinants of their communication with patients about adherence to HAART”.

6) We have now re-written the paragraph to clarify that degree of adherence was not only determined from viral load, but also from situational factors. The paragraph now goes like this (p. 13):

a. “Physicians determined the degree of adherence both from the treatment effect (viral load) as well as from situational factors. If the patient had a rising viral load, physi-
cians would virtually uniformly be suspicious that the patient might have low adher-
ence, especially if the viral load was rising from very low (i.e., “undetectable”) lev-
els. However, the interpretation of an undetectable (or otherwise stable) viral load
varied considerably, since some would consider this proof that the patient was suffi-
ciently adherent, whereas others would still be very alert for poor adherence. Physi-
cians’ interpretations of the patients’ situational factors varied considerably. How-
ever, all physicians generally made an overall assessment based on the patient’s life-
style, abuse patterns, perceived personality, and timing of medication refills, and
they listened to patients’ statements regarding adherence.”

Furthermore, we have now tried to clarify why we consider perceived importance of ad-
herence a central part of the overall adherence perceptions. In the original text, we stated
that physicians differed in their perceptions regarding the importance of patients’ adher-
ence. This text is unchanged, but we have now added the following quotation and conclud-
ing remark (p. 13):

“For example, one part of an interview went like this: “INT: Can you say more about
to what degree [patients] are sufficiently adherent when they are undetectable? … DR:
Well, I mean what is the goal of anti-viral therapy? I guess it’s to drive the virus to
undetectable […] INT: So you don’t think they could be missing enough to be at risk
of developing resistance? DR: I don’t care. That’s not a big worry to me – I’m not a
big resistance-phobic person” (SF13). Physicians who did not consider adherence to
be an important issue tended to communicate less with patients on the subject.”

It is true that the physician’s previous experiences were one important factor in the physi-
cian’s perceptions regarding awkwardness, as described in the text. However, physicians’
previous experiences are not a part of the model in Fig. 1 (previously table 2). Generally, in
the text of this paper we describe the subcategories of the main concepts in the model. How-
ever, we do not include these subcategories in the overall model. We have included subcate-
gories (such as the physician’s previous experiences with the patient) in the text and in a
new, supplementary figure (fig1b). We have tried to make this clearer by adding the follow-
ing sentence to the first, introductory paragraph of the results section (p. 11 – 12):

a. “This simple model is further explored in the body of this paper and a fuller ver-
sion of the model is included as an additional file (fig 1b). In the paper, we first de-
scribe the three perception factors and their main determinants (or “subcatego-
ries”). Then we describe the main ways that physicians act during the four steps in
the communication process and how the three perception factors influence these
actions. In turn, we briefly look at the consequences of these actions for the awk-
wardness, believability, and adherence information content of patient responses as
perceived by physician and researcher.”

It is also true, that perceived awkwardness does not only depend on previous experience,
but also on communication style and patient relationship. However, as described in the
text, perceived awkwardness furthermore depends on “other objective signs of non-
adherence”, “other pressing issues in the consultation”, “being very focused on showing
patients respect” and “worry about the believability of the answer”. And again, to make
this paper a pleasant read, we have chosen to describe these and other subcategories as
plain text rather than as highlighted categories. These subcategories are not included in
the simple model either, as it would make the model quite complex. To make this point
clearer we have added the following paragraph to the discussion section (p. 24):
a) “The model in Fig. 1a is quite simple, as we have not illustrated the subcategories and determinants described in the text. Even in the fuller model with some subcategories (Fig. 1b), we have not included the connections between specific perceptions and specific behaviors, as it would make the figure overly complex. This complexity of the full analysis may be viewed as a weakness of the study, but we believe the simple model conveys the main messages.”

7c) We feel that we use the possibilities of e-publishing in a fruitful way by adding the enhanced figure 1b) as a supplementary file.

8) Yes, obviously believability of a patient’s statement on adherence also depends on the physician’s evaluation of the patient’s adherence, which means that there is a close relation between adherence perceptions and believability perceptions. We have now re-phrased and shortened the section about the believability a little, so that we make this more explicit, and to achieve more clarity we more exactly use the same terminology in this section as in the section about adherence perceptions. We have also more explicitly divided the factors influencing believability perceptions into those that relate to the specific situation, and those that relate to the physician’s general perceptions. (We have done this to make it clearer that the additional point here is not only the communication style, but also the physician’s general perceptions regarding believability and the physician’s explanations of the underlying reasons for low believability). Now the section about believability starts like this (p 15):

a. “Believability issues were also important during all four steps of physicians’ communication strategies and were determined by the specific situation as well as the physician’s general perceptions. In the specific situation, the believability of a patient’s claims of good adherence was evaluated by physicians from their independent assessment of the patient’s degree of adherence (based on viral load and situational factors as described above), coupled with the patient’s perceived general trustworthiness and the phrasing and tone of the patient’s adherence statements…” (etc.)

9) There is no sequence in the three factors, as there is in the four steps. We have tried to make this clearer in the drawing of the new figure (which replaces table 2), and by giving the three factors letters (“a”, “b” and “c”) instead of numbers. For clarity, we have, also re-ordered the three factors in the first paragraph of the results section (under the headline “overview of findings and comparison of San Francisco and Copenhagen”), so that they are mentioned in the same order as in the abstract and in the body of the text (a: adherence; b: awkwardness; c: believability).

10) The way that the three factors influence each of the four steps is exactly what is described in the body of the text. We do not find it appropriate to incorporate all this in the model (please see comment 7) and 7b). Regarding the example given by the reviewer, it is true that a particular combination of factors may not go beyond step 1. This is described under the headline: “Step 1: deciding whether to ask about adherence or not”.

11) During the study, it emerged that the differences between San Francisco and Copenhagen were much less prominent and much less interesting than the communication patterns, which were very much alike in both settings. In order not to make the paper very long, we have chosen to mention the observed differences rather briefly. However, we agree that we have not sufficiently explicitly stated that we have chosen to focus on the similarities rather
than the differences between the two settings. In the paper, we have kept the following sentences from the original version of the paper (under the headline: “Overview of findings and comparison of San Francisco and Copenhagen”)(p. 11):
   a. “The main communication patterns were similar in San Francisco and Copenhagen. In both settings, …”
   b. “A few differences between San Francisco and Copenhagen in relation to adherence communication were observed. Average consultations were longer… (etc)”

However, now we have also added the following sentence at the end of final paragraph (under the same headline) (p. 12):
   c. “Since the similarities between communication patterns in San Francisco and Copenhagen were so much larger than the differences, in this paper we will not further dwell on the differences.”

12) We are very happy that the reviewer finds that “recommendations made are reasonable and do come out of the data presented”. We hope that all the explications added above are satisfactory to support our recommendations. Our recommendations are, however, not “categorical” as stated by the reviewer. They are “suggestions” (as we state in the next-to-last paragraph of the results section) (p. 23).

Minor essential revisions:

13) We agree. We have now rephrased our aim a little as follows (p 5):
   a. “The aim of the present analysis therefore is to describe, conceptualize, and interpret the communication of physicians when they talk with patients about treatment adherence, and to explore the difficulties they face and the ways they handle them.”

14) We agree. We have added the following to the discussion section:
   a. Another limitation is the non-inclusion of patient’s viewpoint, although our findings are supported by others who have interviewed patients [33-40].

Discretionary revisions:

15) Yes. We have now included the numbers (see text).

Leana Uys’ report (reviewer # 2):

General (minor essential revisions):

1) OK.

2) To make it clear that the notes on observations were analyzed along with the interviews, and were equally used as data, we have added the following sentence at the end of the first paragraph under the headline “Procedures and analysis” (p. 8):
   a. “The handwritten notes on observations were typed into a word-processing program within one day after the interview.”
Furthermore, under the same headline, in a subsequent paragraph about analysis, we have added the underscored words (p. 8):

b. “In the analysis, all interviews were re-played on audio and all data were re-read several times. First, a brief summary of the observations and interview with each physician was written within one day after the interview. Then, during open coding, all notes on observations and the transcribed interviews were fragmented….etc.”

2b) We have now deleted the mention of the two settings in the overall aim.

3) OK.

4) A very appropriate remark. However, we believe the overall architecture of the paper (three factors, four steps) is now generally more obvious (see for example the new paragraph in the first part of the results section, mentioned in our response to Rakhi Dandona’s suggestion # 7a). However, to ease the transition, we have now also added the following sentence between the presentation of the three factors and the four steps:

a. “In the following, we will explore how these three physician perceptions (adherence, awkwardness and believability) influences the way physicians handle the four steps in the communication process.”

b. We also agree that a heading for each of these components could be clarifying. However, since we already have 5 levels of headlines and sub-headlines, we fear more levels would make the paper too complex, and we have not changed the original headlines (except as stated in response # 9 to reviewer # 1).

5) OK.

6) OK.

7) We have now corrected the mentioned typing errors. Furthermore, we have had a professional writer review the language of the manuscript, who has prompted a few corrections. We also agree with the suggestions regarding the poor sentence on page 6, and have now changed it to:

a. “In Grounded Theory, data are analyzed concurrently with data collection and the main issues are allowed to emerge during coding and conceptualization of data [22,25].”

**J. Randall Curtis’ report (reviewer # 3)**

**Major compulsory revisions:**

1) Methods, page 9: We have expanded on our efforts to establish the validity by a more thorough description of the methods, as mentioned previously in our response to:

a. Point 3) of reviewer # 1
   i. (The handling of physician’s comments)

b. Point 2) of reviewer # 2
   i. (The analysis of observations)

c. Point 4) of reviewer # 1
   i. (The coding and analysis procedures)

d. Point 15) of reviewer # 1
   i. (The quantification of the responses from physicians regarding the effect of the observer on the consultation process)
e. Thus, the paper now contains a transparent description of all the steps in the study, which together establishes its validity and trustworthiness.
   i. Recording and verbatim transcription and coding of all data.
   ii. Recurring themes were sought for and alternative interpretations were tried
   iii. Analysis procedures according to Grounded Theory
   iv. Interpretations were checked with informants, co-authors and external ex-
   perts, and was related to the existing literature (in the discussion section)

2) Results, page 10: The overview paragraph has now been expanded and clarified/re-ordered, as mentioned previously in our responses to:
   a. Point 7a) of reviewer # 1
   b. Point 9) of reviewer # 1
   c. Point 11) of reviewer # 1

3) Results, page 10, 13 and elsewhere. True, the label “believability” implies a judgment from the physician, which may proceed into a judgmental attitude, which is why it often disturbs the communication. We agree that “promoting honesty” is a central way of handling awkwardness and low believability, but we do not think the model would benefit from including this in the label of the third factor, as it would reduce its simplicity on this general level. The subcategory “de-shaming” covers much of the reviewer’s relevant comment on “promoting honesty.”

   3b) The physician’s perceptions (e.g. regarding believability) shape how he or she communicates. However, in our analysis of how physicians ask about adherence, we have also included the observer’s interpretation of the consequences of physicians’ questions for the believability, awkwardness and adherence information content of patients’ responses. In our review of the text, we hope we have now generally made it clearer throughout the paper, whether we are writing about physician’s perceptions or the observers’ interpretations. We have also added the following sentence at the end of the “overview” paragraph (p 11–12):
   “…Then we describe the main ways that physicians act during the four steps in the communication process and how the three perception factors influence these actions. In turn, we briefly look at the consequences of these actions for the awkwardness, believability, and adherence information content of patient responses as perceived by physician and re-
   searcher.”

4) Results: We agree. We have deleted table 2 and replaced it with two figures. Figure 1a) ess-
   sentially contains the same information as table 2 did. Figure 1b) is added as an additional file, and includes more of the subcategories described in the text. (Also discussed in our re-
   sponse to suggestion 7) by reviewer #1).

Minor essential revisions

1) We have now replaced “more burdened patient population” with: “… a patient population with more homelessness and drug abuse.”