Author’s response to reviews

Title: Changes in patient-centered attitude and confidence in communicating with patients: A longitudinal study of resident physicians

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Author’s response to reviews:

Dear Editor:

We would like to thank both reviewers for their insightful comments on the paper, which were of great help in revising the manuscript. The following is a summary of our revisions in response to each of the reviewers’ concerns. The revised parts of the text in the manuscript are highlighted in red.

Sincerely yours,

Hirono Ishikawa

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Technical Comments:

1. Title page

Please ensure each author’s email institutional email address is present on the title page.

> We added each author’s institutional address and email address on the title page.

2. Consent to participate
Please include a statement to confirm whether written informed consent was obtained from participants prior to the study. This statement should be present within the declaration section entitled, "Ethical approval and consent to participate."

> We added the following statement in the declaration section "Ethical approval and consent to participate."

Written informed consent was obtained from the participants prior to the study.

Reviewer 1

Introduction

1- This is longitudinal descriptive study and the type of study is trend, did not mention.

2- In descriptive - analytical study the hypothesis could not be considered instead of it research question should be mention so I recommend writing research questions instead of hypothesis.

> We revised the purposes and hypotheses as follows;

p.5

In this prospective longitudinal study, we described the trends in resident physicians’ patient-centered attitudes and their confidence in communicating with patients, and explored the relationship between attitude changes and confidence. More specifically, we pursued the following research questions.

1) Does patient-centered attitude among resident physicians decline over the first year of a residency program?

2) Does physicians’ confidence in communicating with patients increase over their first year of a residency program?

3) Is the change in physicians’ confidence in communicating with patients associated with the change in patient-centered attitude?

Method:

1- The type of study which is longitudinal trend study should be mentioned clearly.

> We added the following sentence in the method section.

p.5
This is a longitudinal trend study. Study participants were resident physicians who began a junior residency program at a university hospital in Tokyo during the academic years of 2013–2015.

2- Some sentences need to edit such as "residents were informed both orally and in writing?" or Among these 204, 95 (………. It could be stated 95 out of 204 returned the …..

> We revised these sentences as follows.

p.5-6

Residents were informed that participation was voluntary and would not influence how they were evaluated in their residency. Written informed consent was obtained from the participants. Among 221 resident physicians who attended the session, 204 residents (67 in 2013, 66 in 2014, and 71 in 2015) returned a completed consent form and questionnaire (response rate: 92.3%). At the end of the academic year, a follow-up questionnaire was sent to the T1 participants by in-house mail and online (named T2). Ninety-five out of 204 (27 in 2013, 41 in 2014, and 27 in 2015) returned the questionnaire (response rate: 46.6%).

3- The response is lower than 70% however mention about the limitation of generalizability in discussion session but it should mention it in limitation session clearly.

> We revised the limitation section as follows.

p.10

Our study had several limitations. First, the sample was derived from a single university hospital in Japan, which may limit the generalizability of our finding. At least, however, this hospital has one of the largest groups of residents undergoing a junior residency program, and these residents come from medical schools across the country. Second, the response rate considerably dropped at T2 (46.6%). This was partly because the questionnaire was distributed and collected by in-house mail and online at T2, unlike T1 survey that was conducted during the orientation session. Although there was no statistically significant difference in baseline characteristics between T2 participants and non-participants, the changes in patient-centered attitude and confidence in communication with patients might have been different between them.

4- The PPOS measure is not contextualize in Japan. It was developed and validated in Western countries so how do you relay on the results of using this tool in your own context because cultural issue is very important on patient and physician attitude regarding communication competency. There is an article regarding difference of communication styles between western and Eastern cultures(1). Your another tool PCMI correctly was contextualized and there is possibility to use it in Japan but PPOS does not.

> We agree with the reviewer that attitudes toward a patient-centered approach involve a complex interplay of social tradition and culture. The PPOS has been shown to be a valid instrument in Japanese context (Ishikawa H, Eto M, Kitamura K, Kiuchi T. Resident physicians' attitudes and confidence in communicating with patients: a pilot study at a Japanese university
hospital. Patient Education and Counseling. 2014;96(3):361-6. We revised the Measures section as follows to state this more clearly.

p.6

The Patient–Practitioner Orientation Scale (PPOS) is a well-validated instrument for assessing an individual’s attitude toward the patient–physician relationship (11) (13). A previous Japan-based study translated and validated the scale (14).

5- Due to the use of self-assessment tools the validity of findings is unclear.

> We revised the limitation section and added a reference to discuss this issue.

p.10

Forth, it is widely acknowledged that physicians’ self-assessment of their competence does not necessarily reflect their actual competence (20, 21). At least, however, another part of our study revealed that physicians’ confidence in communicating with patients as measured via the PCMI was related to their observed communication behaviors during a simulated medical interview (22).

6- In participant session there is a need to describe more about non-participant group.

> We added the following sentences in the Participant section.

p.7

Among 221 resident physicians who attended the session, 204 residents (67 in 2013, 66 in 2014, and 71 in 2015) returned a completed consent form and questionnaire (response rate: 92.3%).

Discussion

1. In first paragraph of discussion the hypothesis should be replaced by research question.

> We deleted the sentence.

p.9

This study longitudinally examined the changes in resident physicians’ attitudes and confidence when communicating with patients, and explored the relationship between the changes in the two traits. Our findings generally supported our hypotheses.

2. There is lots of repetitions of the results instead of this I recommend to put only main findings and then interpretation of the results in comparison with other researchers findings for example which factors may be effect on reducing the patient centered attitude such as gender that was mentioned in manus and why gender is and effective issue (In Japan the faculty gender
should be the same as student? Female faculty teach to female students and VS? It looks strange!)

3. Overall the data interpretation is weak in this manuscript.

> We revised the Discussion section.

> As to the faculty gender, it did not mean that female faculty intentionally taught female residents. Our discussion was based on the modeling process of the Social Learning Theory proposed by Bandura. According to this theory, individuals acquire new behaviors by observing and imitating others. Those that are observed are called role models, and provide examples of behavior to observe and imitate. Thus, the role model does not necessarily mean a mentor or a teacher who is formally assigned. Characteristics of a role model are often that they are the same gender as the observer, have higher status to the observer and are older than the observer. Thus, we thought female residents might be more likely to observe senior female physicians’ behaviors, while male residents might be more likely to observe senior male physicians’ behaviors. We added this to the discussion, too. See p.9-10

4. The limitation part is integrated with recommendation part as I understand it would be better if the authors consider subtitle for each part regarding cultural issue the author just mentioned few sentences but I believe it should be extended more.

> We added the subtitles of “Limitations” and “Implications for practice and future research,” and revised the prior limitation section. See p.10-12

5. Another limitation regarding the few number of observational study in this field should be stated.

> We added the following to the limitations.

p.11

Fifth, since this was an observational study, causal relationships between physicians’ attitude and confidence cannot be established.

Conclusion:

1. Again this part is summary of discussion. It would be more effective if author write about the benefits of considering PPOS in the medical education curriculum and also health policy makers should running specific courses regarding communication skill.

> We revised the Conclusion section as follows.

p.12
In the present study, as seen in previous studies of medical students, resident physicians’ patient-centered attitudes declined during their first year of residency. The shift in caring attitude significantly differed by gender, suggesting that male residents show greater decline in this trait than female residents. The increase in physicians’ confidence in communicating with patients was greater for those with a smaller decline in their patient-centered attitude. The residency program should consider including systematic training in and assessment of communication skills. The measures of physicians’ confidence and attitudes in communicating with patients might be useful to identify individuals with greater needs and to evaluate the impact of the educational program.

Reviewer 2

Introduction: This sets the scene for the work. The hypotheses are exactly as found in the results. A reader may question this, especially hypothesis 3 that the physician confidence in communicating with patients would be greater for those who demonstrated a smaller decline in patient-centred attitude. Given this close correlation, I think that the introduction should provide more evidence to support this hypothesis.

Following the suggestion by Reviewer 1, we replaced the hypotheses with research questions and revised as follows;

p.5

In this prospective longitudinal study, we described the trends in resident physicians’ patient-centered attitudes and their confidence in communicating with patients, and explored the relationship between attitude changes and confidence. More specifically, we pursued the following research questions.

4) Does patient-centered attitude among resident physicians decline over the first year of a residency program?

5) Does physicians’ confidence in communicating with patients increase over their first year of a residency program?

6) Is the change in physicians’ confidence in communicating with patients associated with the change in patient-centered attitude?

Method:

A notable issue in this section is the drop in participant numbers from T1 to T2, such that the final response rate was 46.6%. The authors advised that participants each received an Amazon gift certificate in return for participation. It is not clear if this was given at T1 to all participants, or only to those who completed both the T1 and T2 surveys. If it was the latter, this may have improved the final participation rate at T2 and perhaps the authors should clarify this when discussing the limitations of their work.
We apologize for the confusing description. The participants received an Amazon gift certificate at T1, and again at T2 if they returned the questionnaire. We revised Method section as follows.

p.6

Among 221 resident physicians who attended the session, 204 residents (67 in 2013, 66 in 2014, and 71 in 2015) returned a completed consent form and questionnaire (response rate: 92.3%). At the end of the academic year, a follow-up questionnaire was sent to the T1 participants by in-house mail and online (named T2). Ninety-five out of 204 (27 in 2013, 41 in 2014, and 27 in 2015) returned the questionnaire (response rate: 46.6%). Each participant received a 500-yen Amazon gift certificate yen at T1 and at T2 respectively, when they returned the questionnaire.

Discussion:

The limitations of the effect of the response rate at T2 perhaps deserve further discussion on the effects on the findings.

p.10

Second, the response rate considerably dropped at T2 (46.6%). This was partly because the questionnaire was distributed and collected by in-house mail and online at T2, unlike T1 survey that was conducted during the orientation session. Although there was no statistically significant difference in baseline characteristics between T2 participants and non-participants, the changes in patient-centered attitude and confidence in communication with patients might have been different between them.

Also some reflection on the effect of specialty orientation on the results--the groups weren't large enough for significant differences between each group of 'specialty orientation' residents, it would be useful to consider this and potential for assessing a larger group of residents from other settings, which are not so weighted towards internal and surgical (e.g. what about general practitioner orientation where clinicians have continuity of care experiences).

Since we do not have the general practitioner system in Japan, there were only a few residents who had general practitioner orientation. They were included in the “internal” group. We did not find statistical significant differences in the PPOS and PCMI scores by the specialty orientations. The results might have been different in second-year residents. Also, the specialty of general practitioner and family medicine is gradually drawing attention in Japan. We would like to follow up this issue in our future studies. We added the followings to the Result section;

p.8

The specialty orientation was not statistically significantly associated with the PPOS and PCMI.
Some discussion on the challenges of being a resident and how it may have impacted on the decline in patient-centred attitudes observed could also be useful. With the pressure of resident workload, the need to impress supervisors and compete for specialty training positions etc, may have also had an effect. There is less time to be patient-centred in a pressure clinical environment? Are the role models discussed, the best ones to develop patient-centred attitudes or is the 'system' responsible for the decline, rather than the residents? I think readers would be interested in the Japanese residency context and any potential influences on the results.

We added the followings to the Discussion section:

Previous studies have suggested the clinical practice phase of training and distress as main reasons for the decline in patient-centeredness and empathy (3, 7). Undergraduate medical education in Japan have typically provided less opportunity for clinical education to interact with actual patients, compared to the US medical schools (17), although it is currently being reformed to increase clinical rotation hours in order to meet the criteria by the Educational Commission for Foreign Medical Graduates. On the other hand, it has been reported that resident physicians in Japan deliver a large volume of high-value patient care, while receiving little structured education and enduring substantial sleep deprivation (18). Previous studies indicated that high levels of stress and burnout were related to deterioration in empathy and patient-centered communication among resident physicians (19). The shift in patient-centered attitudes could be strongly influenced by the systems of medical education and clinical care, which should be further explored in future studies.