Author's response to reviews

Title: Factors Influencing Consumer Adoption of USB-based Personal Health Records in Taiwan

Authors:

Wen-Shan Jian (jj@tmu.edu.tw)
Shabbir Syed-Abdul (drshabbir786@gmail.com)
Sanjay p Sood (spsood@gmail.com)
Peisan Lee (peisanlee@gmail.com)
Min-Huei Hsu (701056@gmail.com)
Cheng-Hsun Ho (jeffher@mail.dba.ntpu.edu.tw)
Yu-Chuan Li (jaak88@gmail.com)
Hsyien-Chia Wen (hcwenn@tmu.edu.tw)

Version: 2 Date: 5 May 2012

Author's response to reviews: see over
From
Yu-Chuan (Jack) Li, M.D., Ph.D.
Professor and Vice President, Taipei Medical University
Chair, Dermatology Dept, Wan Fang Hospital
Taipei, Taiwan, email: jaak88@gmail.com

To
Dr. Natalie
Editor-in-Chief
BMC Health Services Research

Dear Dr. Natalie,

On behalf of the co-authors and myself, I would like to revised version of this manuscript entitled “Factors Influencing Consumer Adoption of USB-based Personal Health Records in Taiwan.” for publication in your honorable journal, hoping that it would be a useful addition to the literature. This work has not been published and is not being considered for publication elsewhere. Conflicts of interests are none.

We would like to request that, please allow reviewers who have previously published in BMC. Because we feel that some reviewers are unfamiliar with the study methods and models. The second reviewer did not understand the aim of the study and study method and all of the comments were not very much relevant to our study.

We tried our best to response all of the comments point by point.

Hope to hear from your office soon.

Best Regards

Yu-Chuan Li.
Dear Dr. Kuang-Yi Wen

We appreciate your interest in our study. We are thankful for your useful comments. Hope now the manuscript is clear and more informative. Once again we want to thank for your time and suggestions.

Here are point by point responses to your comments.

Reviewer's report

Title: Factors Influencing Adoption of Health Records by its Potential Users.

Version: 1 Date: 10 April 2012

Reviewer: Kuang-Yi Wen

Reviewer's report:

The manuscript has been improved. However, in order to be published in the BMC Health Services Research, I suggest the followings:

• Title would be much more relevant and direct as “factors influencing consumer adoption of USB-based personal health records in Taiwan”.

   Re: Done. We have changed the title now.

• EMR, EHR or PHR have different definitions. If the authors don’t distinguish them, I suggest the authors to only elaborate on PHRs directly, including its importance, potential values, etc to support the rationale for the study. Otherwise, currently in the introduction, EHRs was first introduced, then PHRs but the text flow does not show a good connection and relationship between them.

   Re: Yes, we agree with your comment. Therefore we have removed sentences about EHR, EMR and edited the Introduction focused only on PHRs.

• At the end of introduction, authors claim that “the results of this study might help the designers in designing effective PHRs...” which is an overstatement given that this study did not examine which PHRs components are more effective than the others.

   Re: We have changed that sentence. Now it is “Results of this study will be beneficial in understanding the users’ perspectives and supporting widespread adoption of PHRs by individuals.”
• In the research model, the term causal relationship was used in referencing to figure 1. However, causal relationship model is usually examined by path analysis or SEM, which is not the case in this study.

Re: We have removed the statement about the causal relationship.

• Under measures and data analysis section, measure-related information should be discussed first, then data analysis information. For example, Likert scale description can be moved up.

Re: Yes, now we have re-shuffled the statement. Now measure-related information is stated first.

• The last paragraph above the results section addressing the written consent and the IRB should be moved to the participant enrollment section. There is no need to mention IRB approval number and IRB chairman in the manuscript.

Re: Actually the one of the previous reviewers wanted us to mention IRB approval number and chairman’s name. Now we have removed the name and shifted the sentences about IRB to the end of the method section.

• In the results section, the paragraph above table 2 addressing chi-square tests examining differences between adopters and non-adopters needs to be mentioned in the data analysis section. Here, just need to report the results directly, don’t need to explain the rationale for the analysis. Also, variables of experiences of releasing paper-based medical records and hospitalization or referral were not mentioned in the measure and data analysis section. Is “Usage intention” the same variable as “Intention of Use”? If so, please stick with one term throughout.

Re: 1. We are just reporting the results without explaining the rationale.

2. Now we have added the variables ‘experiences of releasing paper-based medical records and hospitalization or referral’ in the measure and data analysis section.

3. Yes, we agree with you.. now we are using only “User Intention” throughout the manuscript.

• “In multivariate logistic regression (Table 5)”, should be Table 3.

Re: Yes, Changed.
• “the adjusted odds ratio showed patients who had age above 60 years were more prone to adopt PHR”…actually you need to state which group you compare with. Also 40-49 years old group was also more likely to adopt PHR compared with those who are under 29 years old, which was presented in the table but not in the results text here.

Re: Yes. Now we have added about 40 years and above age group compared with under 29 years old in the text also.

• The paragraph describing table 3 really need to be rephrased with more clarity. For example, “those with higher educational level were more less likely to adopt PHR”, or “participants reporting higher usage intention were more likely…” The last sentence does not work, either.

Re: Yes, we have rephrased this paragraph. Hope now it is clear.

• The five main variables (perceived usefulness, ease of use, subjective norm, privacy and safety, and computer self-efficacy) were scored on 1-5 scale but were used as binary variables in table 3. Need explanation how you reconstructed these variables for logistic regression analysis.

Re: Dear, Reviewer. Since we didn’t mentioned that variables like ‘experiences of releasing paper-based medical records and hospitalization or referral’ were asked to reply in ‘Yes’ or ‘No’. This created confusion. Now we have added this information in measure and data analysis section. Please refer to the questionnaire attached at the end of the manuscript.

• This reviewer wonders why only usage intention variable was included in table 2 but not the other variables, and why the two “experience” variables were in table 2 but not in table 3.

Re: ‘User Intention’ included the variables like experiences of paper-based medical records and hospitalization or referral. Since the responses were in binary variables we have compared them with adopters and non-adopters. However, User Intention was included in the table 3.

• The title for table 3 might be better as "multivariate logistic regression of predictors of PHR adoption".

In sum, I think the manuscript findings is publishable but I sincerely suggest the authors to carefully go through and revise the manuscript to make it very clear. For example, when reporting logistic regression results, you need to indicate the reference group.

Re: Yes, we have revised our manuscript carefully, hope now it is clearer. We have mentioned the reference group when reporting the logistic regression results.
Dear Reviewer

We appreciate your interest in our study. We are thankful for your useful comments. Hope now the manuscript is clear and more informative. Once again we want to thank for your time and suggestions.

Here are point by point responses to your comments.

Reviewer’s report

Title: Factors Influencing Adoption of Health Records by its Potential Users.

Version: 1 Date: 16 April 2012

Reviewer: Juha Puustjärvi

Reviewer's report:

In principle, analysing patients’ adoption on PHRs through questionnaires is of prime importance. However, the questions should be more specific in the sense that the USB-PHR system could be improved based on the responses. For now, the questions are too general - measuring only whether the patients were more or less satisfied. As a result the conclusions of the research were overly general and easily predictable without a specific statistical analysis.

Re: Dear Reviewer, we hope there is some misunderstanding related to the aim of the study. This study is to evaluate the factors influencing consumers’ adoption of USB-PHR, not about their ‘more or less satisfaction’ with the PHR.

Our questionnaire was based on the Technology Acceptance Model (TAM), we evaluated the adoption behaviors and not about how to improve USB-PHR systems. We sincerely request you to read our manuscript once again. Hope now it is clearer.

There are also other weaknesses in the paper. The distinction between PHRs and EHRs should be clearly specified: EHRs are the data sources of PHRs. Also some kind of classification of various types of PHRs would be useful. For example comparing Internet-based PHRs and USB-based PHRs.

Re: Yes, there was some confusion with the terms EHRs and PHRs, therefore, we have removed the sentences about EHRs. Now we focused only on PHRs. We agree comparing tethered, interconnected and standalone type of PHRs will be informative, however, the focus of study is on adoption behavior. Therefore we have cited the study explaining the definitions of the PHRs [see citation 2].
An interesting focus of the research would be the searching and retrieval methods supported by the USB-PHR. The authors only state that the content of the PHR is based on HL7 CDA-R2. An interesting point would be to analyse the dependencies between the data retrieval methods and the CDA Levels supported the PHR, i.e., whether the PHR is based on CDA Level 1, 2 or 3.

Re: Dear Reviewer, we have a separate study published and cited in this paper (see study 9). In our other study (9), we have explain the technical details of providing patients data and retrieval methods in detail.

I suppose that the PHR is based on the CDA CDD but the authors do not give any information about the used template. Used template is important because the data sources of the PHRs have to be compliant with data sources; otherwise transforming the data orginted from EHRs may be problematic.

Re: We request to read our study 9 cited.

The presentation could also be improved in many ways including English, structuring, and the introduction of the topic and used research methods.

Re: Thank you for comments, we have revised our manuscript carefully, hope now it is clearer.