Reviewer’s report

Title: Healthcare professional acceptance of telemonitoring for chronic care patients in primary care

Version: 1 Date: 23 August 2012

Reviewer: Ping Yu

Reviewer’s report:

This is a significant research that contributes to the extension of TAM model to a new domain and enhances the explanatory power of the original TAM model by the addition of several additional variables. The study investigated three types of healthcare professionals’ acceptance of telemonitoring system for chronic disease management. The type of technology for which the study is conducted is significant in addressing the challenges of chronic disease management globally. As the healthcare providers are the gatekeepers for the adoption and success of any healthcare intervention, understanding the psychosocial factors related to healthcare providers’ acceptance of telemonitoring technology is indeed important. The study followed a systematic approach in research model proposing, instrument development, field data collection and analysis. The study conception, design, data collection, analysis and final reporting are all highly professional. It is an enjoyment to read through this well-written research paper and be drawn by the new findings from the study. The final analysis that identified the three major factors for telemonitoring adoption is particularly useful because it not only provides the positive message that the healthcare providers are willing to accept changes caused by the introduction of telemonitoring technology, but provides actionable finding that suggests to focus the implementation effort on creating the facilitating conditions. The paper is well written in clear, concise and accurate language.

Major Compulsory Revisions

The authors suggested that a mean score for PU and PEU of 4.70 and 5.07 to be relatively high. However, no information has been given about the scale used for analysis. In the survey instrument, the Likert scale went from -3 to 3. Therefore, the value of 4.70 presented in the text is out of rage. Thus it is suggested to tell the reader explicitly the scale used for recording the results. I assume that it went from 1 to 7. If so, then the mean score of 4.70 is less than ‘Slightly agree’ in the survey instrument. Thus this score does not appear to qualify as ‘relatively high’.

The original TAM model needs to be presented and explained because it is likely that the paper is read by someone who does not have any knowledge about the model, thus the person would have no clue what the authors were talking about.

The results of the logistic regression presented in Table 4 suggest that the authors did not conduct data analysis based on the two-tier model presented in Figure 1. The results of the analysis are likely to be based on a model that
assumes that each of the six variables in Table 4 independently contributes to the dependent variable ‘Intention to Use’ and the model is one level, instead of two-tier. I believe that the analysis conducted in the study is correct, but the original model needs to be modified to correspond with the analysis method used. The relevant descriptions in the text also need to be modified to accommodate this change if the authors wish to follow this line.

Another option is that the authors continue with the original model drawn in Figure 1, then structural equation modelling needs to be conducted to test the fit of the two-tier model because logistic regression is not helpful in testing such model.

Minor Essential Revisions

Page 4 Line 1. The last word should be ‘has’.

The consistency of spelling. ‘Organisation’ is used in the text, but in Figure 1, it is ‘organizational’.

Page 8. Data collection. Please specify from which study is the questionnaire adapted from?

Page 8. Line 5 from the bottom: “Given the low internal consistency of the variable Habit, questions addressing previous experience of use of telemonitoring and other ICT in clinical practice were included with the socio-demographic characteristics of participants.” I do not understand what the authors try to tell us. Please further clarify.

Table 3. The value for the variable HAB is difficult to understand.

P11. Descriptive statistics

Content in Line 1 to 2 on Page 12 should be placed in the Methods section.

P12 Logistic regression section

Please double check the odds ratios presented in Table 4 and those described in the text. Some of them were different, for example, OR for PU is 5.28 in Table 4, but 5.62 in the text. The CI for Facilitators was 2.38 – 10.09 in Table 4, but 2.40 -10.10 in text.

The fifth line from the bottom: ‘a slightly’, the ‘a’ should be deleted.

Page 13 The line above ‘Insert Table 5’. The quoted statement ‘Using the telemonitoring system would suppose …’ is different from the same statement supposed to be in Table 5.

Page 15 Study limitation

The last sentence in the second paragraph from the bottom: did the authors end up conduct paper-based questionnaire survey or not, please specify.

Discretionary Revisions

The interactions between the independent variables may need to be analysed and the results presented because logistic regression is able to identify these interactions; and the interactions among the variables are quite useful for
practitioners and scientific community to understand.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

No