Reviewer's report

Title: Drivers of telemedicine use. Comparative evidence from samples of Spanish, Colombian and Bolivian physicians

Version: 1 Date: 16 January 2014

Reviewer: Scott C Roesch

Reviewer's report:

I was asked to review the statistical methodology for the current manuscript. I have, however, read the entire manuscript multiple times. I have specific concerns about the analyses conducted that could influence the ultimate interpretation of the findings. I enumerate my concerns below:

Major Compulsory Revisions

1. Before I discuss the statistical approach, I found the description of the variables to be inadequate, and particularly those included in the factor analysis. How many variables comprised the variables for the factor analysis? Was it simply the 4 that are presented in Table 3? What type of rating scale was used for each of these variables? Descriptive statistics and correlations among these items would greatly help.

2. The entire factor analytic work needs to be described in better detail. I have concerns when I read a sentence like that on the bottom of page 9, “the adequacy of the (factor) analysis was confirmed by the Kaiser-Meyer-Olkin (KMO) test and Bartlett’s Test of Sphericity.” This simply isn’t true. KMO and Bartlett’s Test provide evidence that the observed variables are factorable (correlated). They do not confirm the factor structure after the fact.

Moreover, we have no idea how the number of factors was determined, type of rotational method used, communality values, magnitude of secondary loadings, etc. I would encourage the authors to consult the follow paper with regards to factor analysis:


3. The two factors generated from the factor analysis are used as outcomes in the ANOVA and predictors in the logistic regression analyses. How can we be confident in these analyses given that they are predicated on the validity of these two “factors”?

Minor Essential Revisions

1. The authors should present, or at least give, descriptive information that is relevant to the normality of the item-level and scale-level data that comprise the target study measures that are being treated as continuous.
Some in the psychometric (or broader measurement) literature would suggest that they should use a categorical variable approach to factor analysis given the response options (5-point scale) and non-normality of the data.

2. Effect sizes should be reported for the ANOVA analyses.


**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

No to all.