Author’s response to reviews

Title: Willingness to pay and willingness to accept in a patient-centered blood pressure control study

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Armando Arredondo, PhD, Editor
BMC Health Services Research

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RE: BHSR D17 00031: WTP and WTA in a Patient-Centered Blood Pressure Control Study
Dear Dr. Arredondo:

We wish to thank the reviewers and your editor leadership in review of our manuscript. The revised manuscript and responses to comments by Section, Page and Line are attached.

Reviewer 1

The study estimated Willingness to Pay (WTP) and Willingness to Accept (WTA) among hypertensive patients from a Randomized Control Trial (RCT). Authors showed that WTP ($25.78) was higher than WTA ($14.25). It is interesting to include both of these measure in the analysis. The study was a part of the RCT and conducted among a portion (38) of treatment population.

1. From a policy perspective, it is important to know the WTP of the patients, and authors followed the contingent valuation method (CVM) for that.

However, I think the elasticity is not properly explained. Since the value of elasticity is less than 1 (one), which makes these two measure inelastic, the negative sign reflects an inverse relation between WTP and time (i.e., increase in time decreases WTP). A more general explanation would be understandable for general readers.

Response:

a. Elasticity explanation now begins in Methods/Data Analysis edit, formerly Page (P) 8, Lines (L) 17-24. Additionally, elasticity as it was formerly described in Results/Estimating WTP & WTA/P9, L47-58 and P10, L 4-14 has been edited and the additional detail moved to the new Discussion section.

2. Bivariate analysis mentioned that statistical comparison revealed these 38 patients were similar in representation to entire RCT population. In Table 2 there is no statistical results (p- value) which can support claim.
Response:

a. In the Results/Tables section, this is actually Table 1, on page 15, lines 18-46. P-value was added to Table 1, calculated using Pearson Chi-Square and were significant at p<0.05.

3. In the Results section, it is mentioned that multiple linear regression was performed to determine predictors of WTA and WTP. In reality, only time variable was included in the model (Table 3). There are other socio-economic predictors along with health system variables which should be in the model and adjusted for. Otherwise, only the main value (unadjusted value) would suffice.

Response

a. In Results, for this subgroup/sample, there are no other important socio-economic variables other than the time variable for which there should be an adjustment.

b. Authors did not put in multiple predictors due to limited sample size (38), so linear regression/mean value (unadjusted value) is appropriate and duly noted as such in the Abstract/Results and Data Analysis, P8, Lines 14 & 25.

4. Only a part of the whole story was provided. Authors named the instrument “Patient-centered cost-effectiveness survey, but cost-effectiveness analysis (CEA) was not performed. WTP is often used as a measure for threshold value in CEA. Therefore the CEA with outcome of the RCT (reducing/controlling blood pressure) and cost of treatment for kiosk-based approach can be compared with usual practice. Then, the results would portray a complete picture and be more informative for the policy-makers.

Response

a. The authors believe a WTP/WTA cost effectiveness evaluation (which was achieved by looking at costs through the numerator of the cost-effectiveness ratio) should include discussion of patient costs and many studies exclude them. Patient costs are an element of cost effectiveness evaluation that are often overlooked, but are important because they can be barriers and costs may be too high for the patient. The purpose of the study
The subgroup survey was to focus on WTP and WTA, which are cost effectiveness measures. The survey is a tool to measure patient costs. This is only one of potential multiple elements to put into the equation of cost effectiveness. Patient outcomes and the cost of the intervention as a RCT with kiosk-based approach will be addressed in a future manuscript.

b. The beginning of the Background section now includes perspective on hypertension in global health as well as the United States.

c. The body of the Background section has been expanded to include “valuation of patient time” and “cost evaluation based on facility-related data.” In addition, description of “contingent valuation method” (CVM) was moved from Methods/P6, L16-36 to explain WTP and WTA in CVM as part of a cost-effectiveness evaluation.

d. At the end of the Background section explanation of cost effectiveness, formerly at the end of the section (P4, L7) was edited to give it context within the larger RCT study.

Reviewer 2

This is confusing to me – because your background section describes adherence and BP control, your primary aim was described as to “determine if enhanced discharge from the ED… would improve BP control,” and your Methods and Discussion don’t include any of the above… they are all about a survey on WTP and WTA. This is interesting, but doesn’t flow from your background and the aims of the paper. I suggest you rewrite the Background session and consider the ‘aims’ of your study so they reflect the actual interesting work that you did!

Response

As with the first reviewer, we agree with the need to better articulate the rationale for the WTP and WTA approach with a patient population and in evaluation of patients’ costs incurred during their participation in a blood pressure control study.
1. As noted in Q4 response to Reviewer 1, the Background section was substantially expanded to provide explanation about the context of WTP and WTA and patient costs in cost effectiveness evaluation.

2. Additionally, the Methods section was substantially revised, including deletion of a subsection titled Patient-Centered Cost Effectiveness Survey (P5, L 58 to P6, L16-36) revised to a new subsection titled Survey Instrument and Procedure which describes the historical derivation of the survey and provides detailed explanation of patient questions specific to WTP and WTA.

3. The Discussion section was also rewritten to provide perspective on patients’ perception of time and travel value upon completion of participation in the healthcare study.

Sincerely,

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