Author's response to reviews

Title: Effect of facemasks on empathy and relational continuity: a randomised controlled trial in primary care.

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Author's response to reviews: see over
Dear Prof. Magdalena Morawska,

Ref: Effect of facemasks on empathy and relational continuity: a randomised controlled trial in primary care.

We appreciate the opportunity to resubmit our manuscript entitled ‘Effect of facemasks on empathy and relational continuity: a randomised controlled trial in primary care.’ All comments by reviewers have been addressed, with corresponding changes made directly to the manuscript where appropriate. Accompanying this letter, please find a revised version of our manuscript. Detailed responses to the reviewers are included in this document.

Sincerely,

Benjamin HK YIP on behalf of all the authors
Research Assistant Professor, The Chinese University of Hong Kong.
Reviewer 1: Raymond J. Roberg

Thank you for the review of grammar throughout the text. The language has now been standardised and grammar corrected accordingly.

Comment 1: There should be continuity in the title and throughout the manuscript as to “facemask” rather than “face mask”.

R1: This has been corrected throughout the text.

Comment 2: There is no comment

R2: No changes were needed.

Comment 3: According to the Introduction, doctors in Hong Kong are required to wear masks on all consultations.

R3: Doctors are required to wear facemasks throughout the consultation, however there is little enforcement except in the influenza season.

Comment 4: You may wish to use the more commonly used term “schedule” rather than “rota”.

R4: This term ‘schedule’ has been used.

Comment 5: I think it would be useful to have a table listing the ten questions.

R5: A table of the CARE measure questions may be useful, however the authors discussed this at length and felt that as the CARE measure is easily accessible online with detailed explanation of its use, a descriptive table would not be necessary.

Comment 6: There are various studies that actually do show some prevention in aerosol transmission (e.g., Milton DK, et al: Influenza virus aerosols in human exhaled breath: particle size, culturability, and effect of surgical masks. PLoS Pathog 9(3)01003205).

R6: Milton DK et al looked at the efficacy of the facemask in reducing particle exhalation, however in clinical studies looking at the use of facemask in transmission, there has been limited evidence that facemasks alone are effective. The text has been changed to ‘limited protection in preventing infections and aerosol transmission…’

Comment 7: Optimization of the therapeutic relationship is essential in all medical fields, not only primary care.

R7: This study was conducted in primary care settings. The optimization of the therapeutic relationship is essential in all medical fields. The text now read ‘particularly for medical physicians and other healthcare professionals where…’
Reviewer 2: Ralf Jendyk

“Discretionary Revisions”

At first some questions concerning the language: to my mind it has to be spelled "hypothesized" not "hypothesised" and "face masks" instead of "facemasks", but I may be wrong. On page 11: "consultation-time" might be more concrete than "consultation" alone. There is an additional question on the sentence starting on page 5 and ending on page 6 (I attached the commented Article-pdf). Under the section "Outcome measures" "multiply" should be changed into "multiplied"

The language is now standardized and used the suggested terms.

"Minor Essential Revisions"

Comment 1: Why are the scores multiplied by 10 and 6, respectively? Would the results be statistical significant without multiplication?

R1: We followed Fung et al [ref 31] mean score approach to maximize data inclusion. It has been shown that this method and other data inclusion approaches provided similar results to results without multiplication [Fung et al 2009 (ref 31), Mercer et al 2005 (see reference)].

Comment 2: You mentioned the recommended minimal sample size to draw any conclusions from the findings (somewhat about 50 consultations). The subgroup analysis on patients knowing their doctors well doesn't meet this criterion!

R2: The suggested 50 consultations per doctor relates to estimating a highly reliable mean CARE score at doctor level for analysis. In our analysis, the primary outcome is the mean patient rated CARE measure of facemask wearing and non facemask wearing doctors. The CARE measure at doctor-level was modeled as random effect. We agree that the sub-group analysis (i.e. interaction effect) was based on a small sub-group of patients. However, as the results were significant, then sample size (or Type II error) should not be an issue. In the updated manuscript, suggestions were made to confirm the observed interaction effect with further studies.

Comment 3: Would the results of the subgroup of patients not knowing their doctors well alone be statistical significant?

R3: Among patients not knowing the doctors well, the facemask effect is minor and not significant (-0.76, SE=0.45, p=0.0836, see table 3).
Comment 4: Perhaps it might be reasonable to clarify the total number of physicians asked to take part in your survey on page 6 (you mentioned the total number in the table but explaining it in the text would probably shorten readers questions).

R4: The total number of physicians (n=40) has been added to the text.

Comment 5: Who defined the general health of included patients during the last 12 months: the patients, their doctors or was this information from the records.

R5: General health was self-reported by the patients in the questionnaire. An similar approach used in previous CARE studies.

Comment 6 (Page 11): please clarify for which other variables you adjusted the results.

R6: Other adjusted variables are listed in table 3. This included age, general health in the past 12 months, “knowing the doctor”, self-reported consultation time and the nature of the problem). We have now clarified this in the text.

Find some additional questions on page 13 (see attached file):

Comment 7a: Might that be a matter of habit (the patient is used to see his/her doctor)

R7a: This is a possible explanation of the observed phenomenon. Further well designed studies are needed to explore the facemask wearing effect and the effect of habit, which is emphasized in the discussion.

Comment 7b: Without wearing a mask (we guess reviewer was referring to the 5.67 drop in CARE score).

R7b: The 5.67 reduction in CARE score is referring to patients who reported knowing his/her doctor well and consulted his/her doctor who wore a facemask.

Comment 7c: Was the observe sample in the UK nearly the same?

R7c: In the UK study, there were 3,044 patients and 26 doctors. However, the purpose of the UK study were to study the perception and reliability of the CARE measures, and thus the outcomes were different to that of our study.

Reference (for R1):