Author’s response to reviews

Title: Validation of an advanced practice physiotherapy model of care in an orthopaedic outpatient clinic

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Author’s response to reviews: see over
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Dr J. Bart Staal  
Associate Editor  
*BMC Musculoskeletal Disorders*  
BioMed Central Ltd, Middlesex House  
34-42 Cleveland Street  
London W1T 4LB, UK.

**Object: Research article submission**

Dear Dr Staal,

We thank you for the opportunity you gave us to resubmit our manuscript entitled: “**Validation of an advanced practice physiotherapy model of care in an orthopaedic outpatient clinic**” We were pleased to see that both reviewers were enthusiastic about the manuscript, as reflected in their constructive comments. As you will see in the next pages, all the suggestions made by the reviewers were integrated in this new version of the manuscript.

You will find, in the following paragraphs, the list of changes done as well as our responses to the reviewer’s comments. All issues and comments raised were addressed and we feel the manuscript has been significantly improved in the process.

We appreciate the time you and the reviewers invested in the review process. We hope that this revised version of the manuscript will be found acceptable for publication in *BMC Musculoskeletal Disorders* and we are looking forward to hear from you.

Sincerely,

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First, we would like to thank the reviewers for their careful reading of the manuscript and constructive comments and questions. Here follow our responses, in the same order the comments and questions were presented:

RESPONSES TO COMMENTS AND QUESTIONS OF REVIEWER 1

Major compulsory revisions:

1. The results show that 109 patients had imaging tests available in their file at the time of consult. This implies that the consult was not their first visit to a clinician and the history of these patients may have enhanced the concordance between the APP and the orthopedic surgeons. In addition the mean duration of symptoms was almost 5 years, which further suggests that these patients underwent a trajectory before the consultation (albeit with other clinicians). The authors should clarify this.

   These patients were new patients seen for the first time at the orthopaedic clinic at the Sacré Coeur Hospital and for the vast majority of these patients the only available information that was found in their hospital file was diagnostic imaging tests ordered in the past. The tests were often not appropriate (wrong incidence, no contrast. etc.) or out-dated as seen by the number of new imaging tests ordered by the orthopaedic surgeons. We agree that this available information may somewhat boosted the concordance but this is nonetheless representative of the reality where an APP would have access to this information in the clinical setting. We have added that information in the methods section and we have added a comment about this aspect in the discussion. (page 6, lines 9-12 and pages 11, line 28 to page 12, line 3)

2. The authors should further elaborate on the generalizability and feasibility of the APP model. Is it feasible to generate a sufficiently large cohort of APP with sufficient skills? And would this solve the waiting list problem in Canada?

   We have added a comment in the discussion section regarding that aspect (page 10, lines 21-26):

   « It is important to demonstrate the validity of the APP models of care as these models are being implemented in different settings in Canada and elsewhere. These new models will help increase access to care for Canadians, especially for those suffering from musculoskeletal disorders, as broader implementation of these models is expected and different APP training programs are being created in many provinces to help develop a critical number of APPs . »

Minor essential revisions:

3. The authors should include a timeframe. When was the study conducted and how long?

   We have added that information. (page 4, line 25)
4. The authors should clarify whether there was a specific order in seeing the APP first or the orthopedic surgeon, or whether this order varied.

The order of the evaluations by both providers varied, but it was not systematically randomized. We have added that information. (page 6, lines 8-9)

5. Were the researchers able to prevent that patients provided information to the second clinician after the diagnosis and triage of the first clinician? Spill-over of information may have enhanced diagnostic concordance

No spill over was reported as patients were asked not reveal any information from their first assessment with the second provider. We have added that information. (page 8, lines 23-25)

6. The project seemed to have solved the waiting list problem of the hospital with a relative small intervention. Was this model further implemented in the routine

We are presently evaluating the precise effects on wait time. The APP model is implemented with the three participating orthopaedic surgeon.

7. I do not understand the raw proportions of agreement in Table 5. The denominators add up to the 120 patients, representing the treatment approaches of the orthopedic surgeons. What do the 100 cases in the numerators represent?

We are unsure of the 100 cases the reviewer is referring to. 106 represent the cases where concordance was obtained between the providers on a total of 120 patients. On the next three lines, the concordance is broke down into the three possible categories of treatment options that the providers selected: 1- conservative, 2- surgical approach or 3- undecided at this time. The numerators is the treatment approach of the APP and the denominators are the treatment approach of the surgeon. (page 21, table 5)
RESPONSES TO COMMENTS AND QUESTIONS OF REVIEWER 2

1. Abstract: Please indicate the direction of the differences between surgeons and physiotherapists regarding type of treatment recommendations and imaging tests ordered.
   We have added that information. (page 2, lines 23-26)

2. *Replacing orthopedic surgeons by physiotherapist has lots to do with reducing healthcare costs. This economic reason hasn't been mentioned explicitly in the introduction paragraph.*
   We have added that information. (page 3, lines 18-19)

3. Page 6: Please provide an explicit statement that the surgeon and the physiotherapist were ignorant regarding the outcome of their assessments and decisions.
   We have added that information. (page 6, lines 20-22)

4. The two healthcare providers used 6 diagnostic categories of the knee and 5 of the hip. It seems that the level of agreement was high. Were these diagnostic assessment based on a fixed protocol and which tests were used? Please clarify?
   The clinical evaluation and test used by both providers to reach a diagnosis was not standardized and they could use any evaluation techniques or physical tests they felt necessary. We have added that information. (page 3, lines 20-22)

5. Page 7: ‘In the event where the APP and the orthopaedic surgeon disagreed on the primary diagnosis, the secondary diagnoses were taken into account to further evaluate diagnostic concordance’. I do not understand the rationale behind this approach. It seems to me that this may inflate the results of this study.
   The results presented in tables 2 and 3 are based on the primary diagnosis only and therefore do not increase the concordance. In a sub–analysis, as we also collected the secondary diagnosis for all participants we wanted to look at the possibility that both providers had the same two diagnoses but not in the same order (for example– first provider: 1- knee osteoarthritis and 2-meniscal tear. Second provider: 1-meniscal tear and 2-knee osteoarthritis). We felt that those particular situations should be classified as being concordant to better reflect the actual clinical concordance. There were very few of those cases in our study, only 5 cases. Whether we take into account the secondary diagnoses or not, the concordance is very high between providers and the conclusions remain the same.

6. Page 8: These 312 patients, was this the entire group on the waiting list of the surgeons?
   No it was not. See response to comment 6 for reviewer 1.