Author's response to reviews

Title: Individuals with chronic low back pain have greater difficulty in engaging in positive lifestyle behaviours than those without back pain: An assessment of health literacy.

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Author's response to reviews: see over
Dr Simon Yeung  
BMC Series Journals  
BioMed Central.

Re: Manuscript MS: 7587568825110741

Dear Dr Yeung,

Thank you for arranging peer review manuscript MS: 7587568825110741 and for your email on 1 April 2011. I am pleased to be able to respond to the reviewers’ comments.

Please find attached a point-by-point response to each of the issues raised. Revisions to the manuscript have been made using ‘track changes’.

I hope these revisions are to your satisfaction and enable publication of this work in BMC Musculoskeletal Disorders.

On behalf of the co-authors, I declare no financial or other relationships which might create a conflict of interest. This manuscript has not been published previously nor has it been submitted elsewhere for publication.

Sincerely

Dr Andrew Briggs  
Chief Author.
Response to reviewers

Editorial comment

1. Include email addresses on the title page

   Email addresses have been included

Reviewer 1: Pilar Escolar-Reina

1. Introduction: The authors make a reasonable argument for carrying out the study and the objective is well described. However, references need to be included for arguments supported by qualitative study. The authors should provide this reference.

   Thank you. We have included the reference to our qualitative study in the Introduction (Briggs et al). Further, we have added references to substantiate the use of the HeLMS against other qualitative methods [1, 2].

2. The authors should provide domains of Health Literacy Measurement Scale. They reported its advantages - “HeLMS was developed to measure elements of health literacy beyond numeracy and reading comprehension …” - but they did not provide its domains.

   A description of the domains has been added to the Introduction as suggested by the reviewer. This has been presented in the paper as Table 1. This revision also addresses Reviewer 1 point 3 below, and Reviewer 2 point 6.

3. The study method itself appears to be reasonable, though there were some problems. First, while the author reported domains of Functional health Literacy in page 7, they omitted domains of HeLMS in page 8. They should provide them because they are essential in this article.

   A description of the domains has been added as stated above (refer also to reviewer 2, point 6).

4. I agree that responses for each item were dichotomised because they are not continuous data. Parametric tests seem appropriate for assessing differences between continuous data from each HeLMS domain; however, author should use only non-parametric test for assessing differences between dichotomised responses for each item.

   Non-parametric tests were used to assess differences between groups on dichotomous outcome measures. Specifically, the proportions of individuals in each group with responses in the ‘no difficulty’ and ‘any difficulty’ categories were compared with chi square tests. This point has been clarified in the data analysis section.

5. Layout of results is basically acceptable. Nevertheless, the authors should describe if differences exist between individuals with chronic low back pain and those with no history of LBP. Since Discussion is about no differences between groups in page 10 (as it should be, I believe), I wonder about the lack of specific sentences in results section. Readers specially need to know if some variables (age, gender and level of education) are equally distributed between the two groups participating in this secondary study. Seeing results of table 1, I believe likely differences between individuals with chronic low back pain and those with no history of LBP. If yes, it’s only a personal preference but both results and methods sections could improve if multivariate analysis were reported. Right now, according results in table 1, readers could believe that level of education is
potential confounder factor of the relationship between health literacy and chronic low back pain.

The reviewer raises an important point. The results section of the paper already reports no difference in clinical and demographic variables between the groups and between responders and non-responders, however, we have expanded this commentary as the reviewer suggests. Given there were no differences in these variables between the groups, we have not undertaken a multivariate analysis.

6. Discussion: This section is well written and the continuity between previous research and the present study is clear. However, continuity with findings of other chronic pain populations—as was done in introduction—could improve the discussion section.

Considering this suggestion, we have expanded elements of the Discussion to relate our results and interpretations to existing literature reporting on other chronic pain populations, specifically rheumatoid arthritis [3], osteoarthritis [4], musculoskeletal pain [5] and spinal cord injury-related pain [6].

7. The authors include study limitations; however, limitations need to be expanded. As I understand, the authors do not discuss limitations due to make an analysis in isolation between HeLMS and chronic low back pain history.

The limitations presented in the Discussion have been expanded to improve clarity. The reviewer is correct; the study cannot draw conclusions concerning the association between HeLMS scores and LBP history. This has been suggested as an area of future research in the final paragraph of the Discussion. We have expanded this suggestion as recommended by the reviewer.

8. The authors provide suggestions for future research. They also provide implications for practice, such as “self-management support initiatives for individuals with chronic low back pain”, but this implication should be expanded with specific recommendations for care providers.

Comments regarding the specific recommendations for care providers has been added, as suggested by the reviewer.

Reviewer 2: Peter Schulz


Yes, ‘community-dwelling’ refers to non-institutionalized. We suggest this is a common term and have elected not to modify the term.

2. p. 5, line 5/6: what is “community-based information”?

This refers to information that is readily available within the local community. The sentence has been clarified.

3. p. 5, line 6 from bottom “described previously” should run “mentioned previously” or “described subsequently”.
The sentence has been re-phrased as suggested.

4. Provide a rationale for the major hypothesis that “individuals with CLBP would have poorer health literacy than those without LBP”. There is some text leading up to the hypothesis, focusing on self-management. I would buy the idea that LBP patients with low health literacy have more difficulty to learn how to self-manage, and because of their low management skills, suffer more pain. But if this is the argument, you did the wrong study, because you should have compared patients with CLBP with patients who were treated effectively rather than with patients who never had LBP. As it stands, I do not see any reason why you hypothesize a difference between persons with and without (C)LBP. And the empirical results you cite about non-existing differences in functional health literacy support my scepticism in this regard.

The reviewer raises an important point. The hypothesis of the study has been clarified and further justification provided. Specifically, the hypothesis has been clarified to suggest that “HeLMS scores would reflect poorer health literacy in individuals with CLBP, relative to individuals with no LBP, in areas that were comparable to those identified from our qualitative study and potentially identify additional aspects of poorer health literacy that were not identified in our qualitative study”.

5. Provide a better link between present and earlier qualitative results, or cut this part of the study. One of the reasons for comparing patients and non-patients was the qualitative finding that patients “encountered several barriers in seeking, understanding and utilising LBP information. For example, participants reported difficulty in finding reliable community-based information about LBP management options, understanding medical terminology, and implementing advice from health professionals when it was discordant with their beliefs or precluded by socioeconomic circumstances” (p. 5). Your other hypothesis says you expected to find differences between patients and non-patients in similar aspects, and you later say several times that the differences you found are in fact in similar aspects. But frankly I cannot see how your present quantitative differences are similar to the earlier qualitative ones (at least not in the way the qualitative results are presented here). So I suggest you either improve the argument here or you leave out this aspect of the study.

To address this issue the linkages between the results reported in the current study and those of the earlier qualitative study have been elaborated in extensive changes to the Discussion.

6. Provide more information on the HeLMS measure and its domains. The only information on the domains is in Table 2, which gives only the labels of the domains. Two or three sentences on what each of the domains aims at is called for, in my view. If that is not provided, Table 2 (and thus major results of your study) are not really understandable. The problem is highlighted by the fact that I’d consider “attitude to one’s health” a poor domain label for the four items that belong to domain 1. If there is a rationale for this label in the literature on the HeLMS measure, it should be repeated here.

A commentary on the scope of the domains has been included, as suggested by the reviewer. This has been included as a table (refer to Table 1).

7. Change the balance of your results from “differences found” to “differences not found”. A study that expected differences in eight domains of health literacy, but failed to find them
in seven of these, should in my view focus on the similarities rather than the differences. This pertains to the title, abstract, discussion and conclusion.

The balance of the results has been re-focussed as suggested by the reviewer in the title, abstract, discussion and conclusion.

References