Reviewer's report

Title: Individuals with chronic low back pain have poorer aspects of health literacy than those without back pain.

Version: 1 Date: 14 March 2011

Reviewer: Peter Schulz

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This is a well-structured and well-written study on a methodologically sound basis. I especially like the development and use of the HeLMS scale for measuring aspects of health literacy beyond the functional ones captured by REALM and TOFHLA. I do however have serious reservations that in fact prevent me from recommending this study for publication. My reservations are nevertheless formulated as suggestions for revisions, except one that cannot be revised.

The one objection that cannot be revised concerns the items in domain 1 of the HeLMS measure. I doubt they unequivocally capture something that I would consider an integral part of health literacy. If the items aim at self-efficacy, I do not have a problem with them. They would then indicate something like, “I am the type of person who can make time, pay attention, find the energy, and is able to change my life.” But the item could also aim at personal circumstances, of the type “I can't find time because I have a job and kids to care for.” Such circumstancial matters I would consider inappropriate for a measure of health literacy. (Whether the measure aims more at self-efficacy or more at circumstances can be related to the context of the questionnaire, which I do not know.)

The idea that the items in domain 1 capture circumstances leads to another problem: Could it be that the difference you found for these items are direct consequences of back pain, in the sense, “I don't have time, don't find energy and cannot change my life because my back hurts all the time”? In that case your analysis would not have anything to do with health literacy at all. You seem to be expressing this idea yourselves on p. 12

- Discretionary Revisions:

  Abstract: I suppose “community-dwelling” means not institutionalized; not sure everybody understands that at once

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

  p. 5, line 6 from bottom “described previously” should run “mentioned previously” or “described subsequently”.

- Minor Essential Revisions: None
- Major Compulsory Revisions

1. 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 skepticism in this regard.

2. 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.

3. 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.

4. 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.

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

Quality of written English: Acceptable
Statistical review: No, the manuscript does not need to be seen by a statistician.