Author’s response to reviews

Title: Developing a scale to measure family dynamics related to long-term care, and testing that scale in a multicenter cross-sectional study

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Version: 3
Date: 4 March 2014

Author’s response to reviews: see over
Reviewer 1

We thank the Reviewer for considering the paper carefully and for providing helpful comments. Specific responses are below.

Reviewer's report

Title: Developing a scale to measure family dynamics related to long-term care, and testing that scale in a multicenter cross-sectional study

Version: 2
Date: 2 October 2013
Reviewer: Guido Miccinesi

Reviewer's report:

Interesting, clear, useful and very simple. I agree with the Authors' conclusion: while the scale might be improved and further validation studies could be useful, the IF-Long holds promise as a toll for primary care practice.

The topic is hot and family practice seems to be the right audience for the Authors clinical ideas and to appreciate/evaluate the suggested items of the new scale.

It is more a clinical tool than a psychometric one, so I am satisfied with the very simple analyses presented.

But: a few added specifications are needed to make the instrument and the paper fully comprehensible.

Major Compulsory Revisions:

In the methods section it must be specified how the tool is used, as it is said in the discussion (primary care physician with a long-standing relationship with the patient and the family).

As instructed by the Reviewer, in the Methods section of the revised paper we specified that the IF-Long is intended to be used by a primary care physician who has a long-standing relationship with the patient and the family. This is at the end of the first paragraph under “Procedures” in the revised Methods section.

It is not clear how the IF-Long score is computed: is it the mean of the single item score (without any weight), as I suppose looking at the results? how does it happen that the mean for single items are around 1.5 and that for the total score is around 0.6? Give some more details to understand, please.
We apologize for the confusion regarding computation of the IF-Long score. For each patient-caregiver pair, the score was the mean number of points across the four items: lowest possible score = 0, highest possible score = 3. For example, a patient-caregiver pair that received 2 points on “disengagement”, 1 point on “scapegoating”, 2 points on “trans-generationally displaced revenge”, and 2 points on “undesirable behavior pattern” would have a score of 1.75, because $2 + 1 + 2 + 2 = 7$, and $7/4 = 1.75$. This is described immediately above “Participants and setting” in the revised Methods section.

The alpha Cronbach is largely unsufficient to give us a measure of the reliability of the tool; at least a test re-test analysis would have been welcome; I think this must be explicitly said in discussion.

We agree with the Reviewer that it would be useful to know the test-retest reliability in this context. As instructed by the Reviewer, in the revised manuscript we consider the issue of test-retest reliability. That new section can be found in the fifth paragraph of the revised Discussion section.

If I understood well, the measuring of FIM and of the goodness of relationship with the patient were completely independent from that of the IF-Long. This is a point of strength of the validation study and I suggest to highlight it in the discussion section.

Yes, the Reviewer’s understanding is correct. The FIM was assessed separately from the IF-Long. The quality of the patient-caregiver relationship before caregiving began was also assessed separately from the IF-Long. As suggested by the Reviewer, we mention these points in the revised manuscript. Specifically, in the revised Discussion section these points are mentioned in the first sentence of the second paragraph and in the first sentence of the third paragraph.

Discretionary Revisions I suggest the following:

figure 1: it would be useful to specify that the numbers on y axis are absolute numbers and not percentages, it is possible to misunderstand as it is now.

We apologize for the unclear label in Figure 1. As suggested by the Reviewer, in the revised version of Figure 1 we made it clear that the data shown are numbers of patient-caregiver pairs, not percentages.
there are not reported results on the association between the IF-LOng and economic situation, kin relationship, living together: I expect interesting results on these issues; are they reserved for other publications? could they be added here to make more intersting this validation study? are they null associations?

Yes, as noted by the Reviewer we did not analyze the data to look for associations between IF-Long scores and economic situation, etc. That was because we did not have any specific hypotheses about such associations, and for these validation tests we chose only to test specific hypotheses. We agree with the Reviewer that there might be some interesting associations, and we mention that point in the penultimate paragraph of the revised Discussion section.

the four items, very interesting, are really different one form the other, so I expect also different association with the other variables collected (see above): are there some results that could be added here?

For the present study, we were concerned with the IF-Long as a four-item scale and so we did not investigate each item separately. However, we do agree with the Reviewer that considering them individually could be useful. That point is mentioned in the penultimate paragraph of the revised Discussion section.

thank you for reviewing your simple, practical and interesting work

We thank the Reviewer for helping us to improve the paper.

Level of interest: An article of importance in its field
Quality of written English: Acceptable
Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests: I declare that I have no competing interests
Reviewer 2

We thank the Reviewer for considering the paper carefully and for providing helpful comments. Specific responses are below.

Reviewer's report

Title: Developing a scale to measure family dynamics related to long-term care, and testing that scale in a multicenter cross-sectional study

Version: 2
Date: 28 January 2014
Reviewer: MARINA ECONOMOU

Reviewer's report:

The authors of the present study report the psychometric properties of an original scale on family dynamics, when caring for older individuals. The scale can be used in both research and clinical contexts.

In general this is a succinct, well-written paper.

There are two main problems with the present study. People caring for an older individual were not involved in the research team developing the scale. Furthermore, prior to pilot testing the instrument, the scale should have been read or discussed in the context—perhaps of a focus group—by people of the targeted population. In line with this, the construct validity of the scale needs additional support (apart from the analysis suggesting that it taps a unidimensional construct).

We agree with the Reviewer that this is a limitation of the present study. We agree with the Reviewer that the validation tests reported here are not conclusive or complete. Further validation testing with qualitative studies involving other stakeholders would be helpful to overcome this limitation. Specifically, information regarding family-dynamics constructs could come from focus-group discussions with patients and caregivers in future studies. We discuss this in the seventh paragraph of the Discussion section.

In addition, since the instrument can be used in intervention contexts and given that family dynamics change over time (Discussion, page 17, “family members might change their attitudes and behaviors over time, in a way that offsets the adverse effects of the duration of caregiving”), good test-retest reliability of the instrument is fundamental; however, authors do not present their findings with
regard to that.

We completely agree with the Reviewer that it would be useful to know the test-retest reliability in this context. In the revised manuscript we consider the issue of test-retest reliability. That new section can be found in the fifth paragraph of the revised Discussion section.

It is my opinion, that since the scale is to be used in clinical settings, the small number of items is actually an advantage of the scale and not a disadvantage.

We thank the Reviewer for this observation, with which we also agree. It is mentioned at the end of the sixth paragraph of the revised Discussion section.

**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.  
**Declaration of competing interests:** 'I declare that I have no competing interests'