Author’s response to reviews

Title: EMOTIONAL IMPACT ON THE RESULTS OF BRCA1 AND BRCA2 GENETIC TEST: AN OBSERVATIONAL RETROSPECTIVE STUDY

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Reviewer #1

1. Reviewer #1 suggested that for future research, it might be interesting to allow open-ended responses from healthy relatives of probands to try to determine the source of their anxiety. It is possible that it could be related to the cancer treatments/fear of loss for their loved one, and not necessarily anxiety related to genetic testing for BRCA1/2 mutations. We agreed with this suggestion and we added this point in the Discussion (Page 13, Lines 7-10).

Reviewer #2

1. Reviewer #2 underlined that it was unclear why the emotional states reported for these women were not correlated with their genetic testing results. He/She added that the methods stated that the participants are women (both those affected and unaffected with cancer) who underwent genetic testing, and that there was no mentioning of what the results were (positive, negative, uncertain), which in previous study has been demonstrated to significantly affect emotional state post-testing.

In Sample characteristics (Page 9) we had provided the following information: In terms of status, 82.4% of the participants were probands whereas 17.6% were nonprobands. A proportion of 13.2% of the sample had the genetic diagnosis of carrier, and 86.8% that of noncarrier. As described in the section on statistical analyses (Page 8) to test the association between the considered dependent variables (i.e. anxiety and depression as detected by HADS, the six mood states registered by POMS, and the 10 considered emotions) and the samples’ characteristics—being a proband/nonproband, being a carrier/noncarrier- Mann-Whitney tests were performed),
we reported the relative findings in the three results’ sections (Page 9-11). Finally, in the Discussion we wrote “Second, in accordance with some previous studies (e.g.: [36-37,3] the data presented did not report statistically significant differences attributable to the test result; in other words, women who had received a positive result (that is, who discovered they had a genetic predisposition to developing breast/ovarian cancer) did not show in a short time more negative emotions and mood states than women who had received a negative outcome” (Page 13).

We believed that the reported poor clarity was caused by our inconsistent use of terminology through the manuscript: we emended this problems by evening out the terminology (P 3, Line 15-16; P. 3 Line 21; P. 5, Line 5,23).

2. As requested, we specified that the testing was solely for BRCA1 and BRCA2 (p.5, Line 21; P. 6, Lines 9-10).

3. As indicated, we added details on what type of information the participants received pre- and post- testing regarding their results (P 6, Lines 18-24, P. 7, Lines 1-4).

4. Since we agreed how pretest emotional data would have been surely useful in better understanding our findings, we suggested this point as an interesting development for future research (Page 13, Lines 10-12).

5. Study participants were consecutive we specified it in Page 6, Line 7.

6. We tried to improve the understandability of Table 1 modifying its layout.