Reviewer’s report

Title: Memories of paternal relations are associated with coping and defense mechanisms in breast cancer patients: an observational study

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Reviewer: Vicky Lehmann

Reviewer's report:

This manuscript addresses a very interesting and intriguing issue potentially associated with coping in breast cancer patients: parental relations. The authors studied these aspects in a homogeneous sample of breast cancer patients shortly after surgery; a time when adjustment problems are typically highest. While I'm very enthusiastic about the topic of this manuscript, I'm also confused about (I) some of the methodological choices/presentation of results (II) and corresponding conclusions.

Points of concern (in chronological order):

Introduction:

- Overall, I think the authors could be clearer and should think about the structure/ connecting all paragraphs more coherently.

For example, it is unclear why the authors mention that symptoms can persist for 2 years and that it influences adherence etc. (line 7/8) --> relevance for this study?; or

line 17, please specify what you mean with "updating information of clinical status" (do you mean active engagement in therapy?)

- Please be more specific about what the differences are between coping and defense mechanisms (or highlight their overlap) and be more specific how avoidance (=coping) is different from denial (a defense mechanism)

- I was wondering if the paragraph on page 4 (starting line 13) should be moved closer toward the beginning of the manuscript, as it describes the basis of this manuscript? (and it should be edited for clarity)

- Last paragraph seems a little repetitive as the authors mention twice that they expect an association. The authors may also want to consider specifying this hypothesis (e.g., direction
of association; which coping styles/defense mechanism are most likely to be related to parental relations; … ?)

Method:
- Page 6, line 13: please specify these cut-offs (and how they were derived; add maybe if they were used in other studies too)
- I don't think the authors need to come across defensive by "apologizing" in the Method section for not using the AAI (numerous studies use survey only/ don't have the resources to do interviews, and the authors address this issue in the Discussion anyway)
- Page 7, line 1: please specify what you mean with "two out of three adequate reliability scores"
- The authors should consider adding reliability analyses for all instruments
- Page 8, line 5/6: the alphas for the subscales seems concerning. Where there several as low as .3 or only one (and please specify which)? Overall, the authors should consider only using the 2 factors, as they had adequate reliability. Any conclusions drawn from scales with alphas around .3 seems very untrustworthy. Instead the authors could also consider only using the subscales that had alphas >.6 (just an idea, as I'm sure the subscales are more informative/interesting than the two broad factors)

Statistical analyses:
- Why do the authors present medians and use non-parametric tests (i.e. use the scores as ordinal, although they could be treated as continuous)? Where the scores skewed? -This is not a particular concern in itself, but I was confused about this: It seems that the authors initially treated their variables as ordinal, but then they also treat them as continuous by using ANCOVAs. Please explain/justify this approach.
- It was further unclear why the authors used ANCOVAs instead of regression analyses for example. -or did the authors do that anyway, because they state that they examined associations between parental variables and coping/defenses in ANCOVAs and multivariable models (page 8, line 23ff versus page 9, line 4ff).?

I'm also still unclear what the multivariable models are/ where they are reported (or are you referring to the ANCOVAs?).
- Please make sure that your analyses described in the Method section align with the Results.
- Which analyses correspond to the results presented in Table 3? ANCOVA? You might want to re-structure the whole table to make it clearer that it is showcasing group comparisons. (now it looks like two separate analyses in two groups)

- I'm also concerned about the number of covariates, given the limited sample size. The authors might want to add power analyses too.

Results:

- Page 10, line 9ff: the authors use language that implies an interaction effect (e.g., patients who reported high levels of … on the contrary …), but it seems that the authors tested the two groups separately, or is this the comparison?

(overall, I had a hard time following what you did.)

Discussion:

- Page 12, line 1: not finding associations with the maternal relationships might be a power issue.

- The authors correctly address that the diagnosis itself may have had an impact on how patients report their maternal relationships, but I think this is the case in general (i.e. also for their report on dads).

- Page 14, line 10: the authors conclude that recollected relationships play an "important role". This might be an overstatement, given the type of analyses and the lack of reporting magnitudes of differences/effect sizes/odds.

Minor points:

Abstract:

- You might want to change the beginning to "breast cancer diagnosis and treatment represent …"

- Line 14/15: specify that no associations were found to coping/defense mechanisms

- Line 17: is --> are

- Page 3, line 2: change "organic disease" (as "organic" is typically used for food/farming methods)
- Table 2: order the subscales by factors, and in an ascending manner

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

No

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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