Author's response to reviews

Title: Emotional Suppression and Depressive Symptoms in Women Newly Diagnosed with Early Breast Cancer

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Author's response to reviews: see over
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Journal Editorial Office
BioMed Central

Re: manuscript id 7199700561284803 entitled “Emotional Suppression and Depressive Symptoms in Women Newly Diagnosed with Early Breast Cancer”

Dear Ms April Rada,

Thank you for your letter of August 8th, 2015, and thank the three reviewers for providing many helpful comments on our manuscript. We have revised the manuscript and responded to the reviewers’ comments point by point. The revised version of the manuscript has been thoroughly reviewed and edited by a professional editing service. Major changes in the revised manuscript have been marked in yellow.

All of the authors listed in the byline have agreed to the byline order and to submit the revised manuscript in this form. I have assumed responsibility for keeping my coauthors informed of progress through the editorial review process, the content of the reviews, and any revisions.

Once again, thank you for your consideration and I look forward to receiving good news from you.

Yours sincerely,
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Reviewing: M. Tish Knobf

Comments to the Author

(5) Are the discussion and conclusions well balanced and adequately supported by the data?
Somewhat. I don't think they can conclude that the women were in need of an intervention. CES-D is a screening tool which would indicate referral to determine if the person was, in fact, depressed.

Response: Thank you for this valuable comment. In the revised manuscript, we have modified the statement “the women newly diagnosed with early breast cancer were in need of intervention for depression” in conclusions as below: (Page 3, Line 5-6; Page 16, Line 11-12).

“The incidence of depressive symptom in the women newly diagnosed with early breast cancer was high.”

(8) Do the title and abstract accurately convey what has been found?
See comment above #5 and I would suggest changing the wording "restricted emotion coping" to something like controlled emotion coping or suppressed emotions in coping

Response: Thank you for this helpful suggestion. According to your suggestion, we have replaced the wording “restricted emotion coping” with “controlled emotion coping” in the conclusion part in this revised manuscript. (Page 3, Line 7; Page 16, Line 13).

(9) Is the writing acceptable? Needs some attention to grammar and also APA style

Response: Thank you. A native English-speaking scientific editor has corrected grammatical and format errors and improved language in the revised manuscript.
Reviewing: Tananze Tinati

Comments to the Author

(1) Throughout the article, there are grammatical mistakes that need attention. For example, please remove instances of ‘researches’ and replace with ‘research’. Please do not start sentences with ‘And’.

Response: Thank you for your careful review. We have checked the grammar and corrected the mistakes. For example, the word “researches” has been replaced with “research” in this revised manuscript; all the sentences started with “And” have been modified.

(2) PG4:
Line 5: change to ‘which used to be a’
Lines 6-9 needs grammatical improvement.
Line 21: change to: …quality of life, ‘and may even have’…

Response: Thank you for this valuable suggestion. In this revised manuscript, we have made some changes on page 4 as follows:
1) We have changed the wording “where used to be low-incidence area” to “which used to be a low-incidence area”;

2) We have improved the statement “Based on the sixth national population census data released by National Bureau of Statistics in 2011, there would be more than 270,000 women who might be faced of the risk of being diagnosed with breast cancer by calculating according to the National Female breast cancer incidence (41.64/100, 000) in 2007” as below: (Page 4, Line 6-9).

   “Based on data of the sixth national population census and the recent national incidence of female breast cancer, there might be more than 270,000 Chinese women facing the risk of being diagnosed with breast cancer.”

3) We have replaced “even may” with “and may even”.

(3) PG6:
Line 1: change ‘research’ to ‘study’
Line 10: use aims rather than ‘purposes’.
Line 20: use recruited not ‘collected’
Response: Thank you for this helpful comment. We have modified the wording on page 6 according to your comment. In this revised manuscript, we have changed “research” to “study”, “purposes” to “aims”, and used “recruited” instead of “collected”.

(4) PG7:
Two inclusion criteria presented, but in line 8, it states women were chosen in they fit the 1st 3 inclusion criteria – please clarify.
Line 13: after rural, include ‘areas’. This is repeated in a few other places.

Response: Thank you for your carefulness.
1) The inclusion criteria “women informed newly diagnosed with breast cancer stage I or stage II by biopsy” indicates that the women should meet two conditions: one is that women diagnosed with breast cancer by biopsy, the other is that women must know their diagnosis. In this revised manuscript, we have modified the description of the inclusion criteria according to your comment (Page 6, Line 21-22).

“(1) women newly diagnosed with breast cancer stage I or stage II by biopsy; (2) informed of the diagnosis by their relatives or doctors; (3) being Chinese speaking.”

2) The word “rural” in every place has been replaced with “rural areas” in this revised manuscript.

(5) PG8:
Line 3 – removed ‘were voluntary’ replace with ‘volunteered’. Replace ‘elimated’ with ‘excluded’.

Response: Thank you for this helpful suggestion. In this revised manuscript, we have used “volunteered” instead of “were voluntary”, and replaced “eliminated” with “excluded”.

(6) PG11:
In various places please use the term ‘significantly different’.
In the discussion section, please present a section on the strengths and limitations of the present study.

Response: Thank you for this helpful suggestion.
1) We have used the term “significantly different” in three places on page 11 in this revised manuscript.
2) According to your suggestion, we have presented a section in the discussion to illustrate the strengths and limitations of our study in the revised manuscript (Page 15-16).

“A key strength of the present study was that we recruited a matched control group for comparison, which has not been included in most previous studies. The high participate rate (98.9% and 95.0% for patients and controls respectively) and full response on each scale for all participants was another strength of our study, avoiding the error caused by missing values. Our study is the first to illustrate the importance of including a screening of emotional suppression tendencies in Chinese women newly diagnosed with breast cancer.

There were several limitations worth noting of the current study. Firstly, because of the self-report nature of the CES-D, it is difficult to draw conclusions about clinically diagnosed depression, which should be included in the future study. Secondly, measures of depressive symptoms were only taken at one time point. Future studies with multiple time points would help to explore the relationships between emotional suppression tendencies and changes in depressive symptoms over time in breast cancer patients.”

(7) PG13
Lines 10-13 are not clear, please clarify.
Line 21: extent not extend

Response: Thank you for this valuable comment.
1) We have made modification of the statement “The rates were higher than findings in previous studies using the same instrument for assessing the depressive symptom in patients with breast cancer in later treatment stages [34, 35], suggesting that in addition to concern the treatment of cancer, it should attract attention of the health sector and the families of patients, prevention and treatment of depressive symptoms in a timely manner must be put on the agenda as soon as possible.” as follows: (Page 13, Line 12-15).

“The rates were higher than findings in previous studies using the same instrument for assessing the depressive symptom in patients under later-stages treatment for breast cancer [35, 36], suggesting that patients newly informed diagnosis results might be at the period in which they are most vulnerable to depressive symptom. Therefore, psychological help should be provided from the beginning of diagnosis and treatment.”

2) According to your comment, we have changed “extend” to “extent”.

(8) PG14
Lines 13-14 are not clear, please clarify.
Response: Thank you for this valuable suggestion. We have modified the sentence “but not did depression suppression or anxiety suppression.” as below: (Page 14, Line 15-16).

“Depression suppression and anxiety suppression, however, had no significant effect on depressive symptoms.”

(9) PG15
Line 6 change to ‘difficulty in expressing’
Lines 9-12 are not clear, please clarify.

Response: Thank you for your careful review.
1) In the revised manuscript we have changed “difficult to express” to “difficulty in expressing”.

2) We have improved the wording “And the breast cancer is considered as a kind of life-threatening disease by most of Chinese, if patients prefer not to express angry in the process of “reaching an agreement with death”, they are difficult to get peace and quiet, and instead, depression may be the result.” as follows: (Page 15, Line 12-15).

“What is more, patients are considered to response as angry when realizing the authenticity and immutability of the diagnosis. As a result, psychosocial intervention in breast cancer patients focusing on anger expression might be effective for decreasing level of depressive symptoms.”

(10) Referencing:
PG10
Lines 10 & 14 please use the author’s last, not first, name
Line 17 – please reference this finding.

Response: Thank you for your careful review. We have corrected the format of references.
1) The first name has been replaced with the last name “Radolff”.

2) We have checked the sentence “which represented different levels of depressive symptoms and emotional suppression tendencies” in line 17 on page 10, and removed it because it is just a repeat of the previous sentence “differences in depressive symptoms and emotional suppression tendencies between two groups”, not a finding.
Reviewing: Jingwei Wu

Comments to the Author

(1) Method: Although authors spend two paragraphs to describe CECS (The Chinese version of Courtauld Emotional Control Scale), it is still unclear how items are rated. Is this also a X-point Likert scale instrument? If so, how the score range is ranging from?

Response: Thank you for this valuable suggestion. In this revised manuscript, we have included a detailed description of how items of CECS are rated (Page 9, Line 18-20).

“Subjects are asked to response to the phrases such as “When I feel angry, I bottle it up” on a 4-point scale ranging from 1 (Almost never) to 4 (Almost always).”

(2) Result: Page 11, line 13, the authors mentioned ‘no depression’, ‘clinical depression’, and ‘major depression’, those terms are not defined previously. Are they classified based on ‘CESD<16’, ‘16<=CESD<27’ and ‘CESD>=27’? To me, if you use cut-point of 16, you should get similar incidence of depressive symptom (36.4% v.s. 34.8%) between two groups. In other words, the distinct of depressive symptoms happened only for the severe (or major depression)? A 3x2 table may be useful for us to understand the distribution of CESD (classified by levels) and two groups.

Response: Thank you for this helpful suggestion. The terms “no depression”, “clinical depression”, and “major depression” are classified based on “CESD<16”, “16<=CESD<27” and “CESD>=27”, which has been mentioned in the method part (Page 10, Line 13-15). In this revised manuscript, we have used “severe depression” instead of “major depression” to maintain the consistency of the context.

We have improved the interpretation of results about the distribution of CESD (classified by levels) in two groups (Page 11, Line 14-16).

“The prevalence of three levels of depressive symptom were significantly different between two group ($\chi^2 = 111.530; p < 0.001$); patients had lower incident rate of no depression and higher rate of severe depression.”

The results have been presented in the following 3×2 table, which has not been included in this revised manuscript considering the length of the text.
(3) Did the authors check the distribution of each variable? To me, years of schooling must be highly skewed, so the Pearson correlation may not be an appropriate method, maybe need to report Spearmen’s Coefficient instead.

Response: Thank you for this valuable comment. We have checked the distribution of each variable, and tested the correlations of variables of skewness distribution such as age and years of schooling using Spearman correlations instead. Accordingly, the Pearson correlation coefficients have been replaced with Spearman correlation coefficient in Table 3. Though the correlation coefficients have changed, the relationships remain the same. Also, in the revised manuscript, the description of correlation analyses in method section “We examined the associations between emotional suppression and depressive symptoms using Pearson correlations.” has been modified as follows: (Page 10, Line 16-19).

“Bivariate correlations of age, years of schooling, emotional suppression, anxiety symptoms and depressive symptoms for all participants were analyzed by using Pearson correlations or Spearman correlations depending on the distribution of variables.”

(4) Page 12, line 16, ‘type of sample’, what did it mean? Group (patients/healthy women)? Please clarify, this term also appeared in the abstract, please make sure the readers can understand its definition at the beginning.

Response: Thank you for this suggestion. The term “type of sample” appearing both in the abstract and on page 12 means “group”, and we have used “group” instead in this revised manuscript.

(5) In table 2, last variable ‘Total emotional suppression’ is displayed, but in the paper, it is not defined. I am assuming it is the sum of the three subscales, please clarify. Also, is there any missingness of your data? If patients had missing data in one of the subscale, it is not appropriate to sum them up (you will have to use mean imputation method to calculation the total score instead).
Please provide missingness of your study data.

**Response:** Thank you for your careful review.

1) The term “Total emotional suppression” is the sum of the three subscales. In this manuscript, we have included a definition of the term in the method section as follows: (Page 9, Line 20-22).

   “The total emotional suppression scores are summed by three subscale scores, with higher scores indicating higher levels of emotional suppression.”

2) There is no missing data in this study. As information on each scale was collected by trained interviewers through face to face interviews, we were able to make sure all the participants completely fill out the questionnaires.

(6) My big concern is the collinearity issues in your multiple regression model. In table 3, authors had already demonstrated strong correlation among three subscale of suppression, in step 3 of regression model, those three highly correlated items were put into the model altogether, there must be a severe collinearity problem. Also, anxiety symptoms are also highly correlated with anxiety suppression. Can authors provide us diagnosis statistics for multi-collinearity?

**Response:** Thank you for this valuable comment. We have tested colinearity between independent variables on the basis of variance inflation factors (VIF) and tolerances. The VIF values for three subscales of emotional suppression and anxiety symptoms are all less than 5, ranging from 1.530 to 4.418; the tolerance values range from 0.226 to 0.654, indicating that there is no collinearity problem of these independent variables.

(7) Discussion: Related to #6 comment, it may not be surprised to only see anger suppression is significant associated with depressive symptom due to the collinearity problem, but you may potentially lost the important information that anxiety/depression suppression are also very relevant variables in relation to depressive symptom (again, take a look at Table 3, those correlation coefficients are high).

**Response:** Thank you for this suggestion. We agree that anxiety suppression and depression suppression are also very relevant variables in relation to depressive symptom, and we have discussed this in line 8-12 on page 14. However, we have checked that no colinearity problem exist in the regression analyses, and results from regression analyses have showed only regression coefficient for anger suppression is significant, indicating anger suppression may have a unique role in predicting depressive symptoms in women newly diagnosed with breast cancer.
(8) On page 7, line 8, authors mentioned ‘Of 255 women who met the first three inclusion criteria,…’, but I only saw two inclusion criteria in line 1-2. Please justify.

Response: Thank you for this suggestion. The inclusion criteria “women informed newly diagnosed with breast cancer stage I or stage II by biopsy” indicates that the women should meet two conditions: one is that women diagnosed with breast cancer by biopsy, the other is that women must be told of their diagnosis. So there were three inclusion criteria including the inclusion criteria “being Chinese speaking”. According to your comment, we have modified the description of the inclusion criteria in this revised manuscript (Page 6, Line 21-22).

“(1) women newly diagnosed with breast cancer stage I or stage II by biopsy; (2) informed of the diagnosis by their relatives or doctors; (3) being Chinese speaking.”

(9) In Table 1, I’d rather out statistics and p-values for these categorical variables in the line with each variable. For example, put ‘1.021, 0.796’ in the line of ‘Educational Level (%)’ etc.

Response: Thank you for this suggestion. In this revised manuscript, we have presented the statistics and p-values for these categorical variables in the line with each variable according to your suggestion.

(10) Some grammar correction: for example, page 3, line 7, change to ‘China presented…’; also page 4, line 9, need to change to ‘by calculation..’

Response: Thank you for your carefulness. We have corrected the grammar errors in this revised manuscript.

(11) I think author need to change keyword ‘emotion suppression’ to ‘emotional suppression’ since this is the terms used throughout the whole article.

Response: Thanks. The keyword “emotion suppression” has been changed to “emotional suppression” in the revised manuscript.

(12) The authors always used ‘the mean of a variable is A+/- B…’. I’d rather to change to ‘the mean (+/- SD) of a variable is A (+/- B)…”
Response: Thank you for this suggestion. We have used “the mean (SD) of a variable is A (B)…” in this revised manuscript, for example, “The mean (SD) score of total CES-D in patients was 21.58(9.82)”. (Page 11)

(13) Page 4 line 5 should change to ‘20% to 30%’

Response: Thank you. In this revised manuscript, we have changed “20 to 30%” to “20% to 30%”.