## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (http://bmjopen.bmj.com/site/about/resources/checklist.pdf) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### **ARTICLE DETAILS**

TITLE (PROVISIONAL)	Understanding men's psychological reactions and experience following a cardiac event: A qualitative study from the
	MindTheHeart Project
AUTHORS	Jbilou, Jalila; Grenier, Jean; Chomienne, Marie-Helene; Talbot,
	France: Tulloch. Heather: D'Antono. Bianca: Greenman, Pau

## **VERSION 1 – REVIEW**

REVIEWER	Ana Cristina Paredes
	Life and Health Sciences Research Institute, School of Medicine,
	University of Minho, Portugal
REVIEW RETURNED	28-Mar-2019

GENERAL COMMENTS	I found this article very worthwhile, in that it focuses on understanding patients' experiences in order to provide tailored health care services and promote both physical and psychological health. The results are very interesting and thoroughly described in the results section. However, I feel that they are not sufficiently addressed in the discussion section. Please find my detailed comments bellow.
	Abstract Page 2, line 14: The setting for this study should be more clear from the abstract (for example, "cardiac departments and community in three Canadian provinces") Page 2, line 16: Just from reading the abstract, it is not clear what this information in parenthesis refers to.
	Strengths and limitations Page 2, line 34: It should be men's instead of mens'.
	Introduction Page 3, line 5: Since the interviews and the inclusion criteria do not specifically focus depression, anxiety and PTSD, I am not sure why these disorders are stressed in the abstract and the beginning of the introduction. I would suggest the authors to consider if it would it be more accurate to talk generally in terms of mental health (in the Discussion, the authors mention "emotional issues" and do not make reference to the specific disorders).  Page 3, lines 7-10: I think that the introduction would benefit from more detailed information concerning the known (bidirectional) association between psychological variables and cardiac health.  For example, what is already known about psychological distress after ACS? How may psychological disorders be related to cardiac health? I believe this would give the readers a clearer understanding of the relevance of psychocardiology, of this study and of the MindTheHeart program.

Page 3, line 22: Please check if it would be preferable to write "less than 25%" instead of "fewer".

#### Methods

Page 4, line 21-25: Were there any exclusion criteria based on other comorbidities? i.e., cancer diagnosis, dementia or other severe or disabling conditions?

Page 4, line 27: The authors state that information on sexual orientation was collected. If this was relevant enough to be considered in the sampling method, should it be reported in Table 1? Also, I could not find this question in the discussion guide.

#### Results

Page 5, line 46: "lasted approximately two hours (+/- 35 minutes)" - Is this information the actual mean and standard deviation of focus group duration? If so, I believe it should be clearly stated. Page 5, line 47: The same information on duration should be provided both for the focus groups and the individual interviews (i.e.: min-max duration, mean and SD)

Table 1: I believe that information concerning patients' age range would provide a more complete picture of the sample. In addition it would be important to have some information concerning the question "Are you suffering from a mental health issue?". Maybe adding another table would be useful to describe clinical/mental health information?

Page 7, line 39: This information reinforces the need to have more detailed information concerning patients' age groups.

Page 7, line 45: Once again, I would say it is important to know if the participants have other medical conditions, some of which may even increase the risk for cardiac events.

Page 10, line 54 and 56: There is a typo in "behaviors" and "sense".

Page 11, line 39: Please note the word "illness".

### Discussion

Page 14, line 12: It should be "beliefs".

Page 14, line 17: Throughout the manuscript, the authors use commas before "and". Please revise, since it is not needed in many cases.

Page 14, line 31: "there still is".

Page 14, line 36: "health". Please revise the text for typos. The discussion raised some important topics for men's health, but I feel they should be more thoroughly explored, namely by comparing with existing research on the subject addressed. Some questions that came to my mind are:

- -What kind of health care services are traditionally available after cardiac events in Canada?
- -Are the results from this study in line with what has been found in other (quantitative and qualitative) research, concerning the psychological impact of a cardiac event? What have these investigations shown?
- -Could some actions also be implemented among the health care providers? Is there some research on this?
- -Given the results, what types of interventions seem to be more needed or would be more useful among men with cardiac disease?

REVIEWER	Ingvild Margreta Morken
	Stavanger University Hospital and University of Stavanger,
	Norway
REVIEW RETURNED	18-Apr-2019

GENERAL COMMENTS	Thank you for inviting me to review this very interesting study addressing emotional challenges that men face following a cardiac event. The topic is novel and adds important information in order to implement strategies and design interventions to improve men's psychological health after a cardiac event. The article is well-written, easy to read and well-researched with logical flow and a clear stated aim. The design of the study is robust, including a large number of patients and follows the consolidated criteria for reporting qualitative research (COREQ).
	I offer a few following advice
	<ol> <li>If you have clinical variables of the sample available, I would recommend that you includes them in table 1. It would be interesting to get an impression of clinical characteristic, such as type of cardiac disease, cardiac arrest, implemented devices (ICD/CRT-D/P) and so on. Table 1 also need more formatting in order to better fit the numbers.</li> <li>In the limitations section the authours write that the sample was limited. Is this correct? Your sample are very large according to the design of a qualitative study. Please delete or</li> </ol>
	explain the rationale for this argument.

# **VERSION 1 – AUTHOR RESPONSE**

Comments	Revisions
Editorial requests:	
- Please revise the 'Strengths and limitations' section of your manuscript (after the abstract). This section should contain five short bullet points, no longer than one sentence each, that relate specifically to the methods. The results of the study should not be summarised here.	Page 2: We thank the editor for this comment. As suggested, we have revised the 'strengths and limitations' section as requested. Its focus is now exclusively on the method, and it contains four short points.
Reviewer: 1	
Abstract	
Page 2, line 14: The setting for this study should be more clear from the abstract (for example, "cardiac departments and community in three Canadian provinces")	Page 2: Thank you for the suggestion, we included it in the abstract.
Page 2, line 16: Just from reading the abstract, it is not clear what this information in parenthesis refers to.	Page 2: We apologize for the confusion. The information in parenthesis refers to the number of focus groups and of semi-structured interviews conducted in this study. We changed the text to make it clearer.

Strengths and limitations	
Page 2, line 34: It should be men's instead of mens'.	We apologize for this typo. Please note that this sentence was deleted from the text.
Introduction	
Page 3, line 5: Since the interviews and the inclusion criteria do not specifically focus depression, anxiety and PTSD, I am not sure why these disorders are stressed in the abstract and the beginning of the introduction. I would suggest the authors to consider if it would it be more accurate to talk generally in terms of mental health (in the Discussion, the authors mention "emotional issues" and do not make reference to the specific disorders).	Depression, anxiety, and post-traumatic stress are the most common psychological disorders that people with cardiac disease face. The prevalence of each is high in this population, which is why we focus on them in the introduction.  We added Emotional issues to address this comment.
Page 3, lines 7-10: I think that the introduction would benefit from more detailed information concerning the known (bidirectional) association between psychological variables and cardiac health. For example, what is already known about psychological distress after ACS? How may psychological disorders be related to cardiac health? I believe this would give the readers a	We thank the reviewer for this relevant comment. We specified in the inclusion criteria that we recruited men with or without depression, anxiety or PTSD. As we understand the relevance of a better understanding of the bidirectional association between mental health and cardiac health, we would like to enhance that this paper's aim is to explore men's needs and experiences. For the purpose of psychological variable, we cited a

clearer understanding of the relevance of psychocardiology, of this study and of the MindTheHeart program.	paper that our team published (Greenman and al. 2018) and that covers these aspects.
Page 3, line 22: Please check if it would be preferable to write "less than 25%" instead of "fewer".	Thank you for the suggestion, we changed it to less than 25%.
Methods	
Page 4, line 21-25: Were there any exclusion criteria based on other comorbidities? i.e., cancer diagnosis, dementia or other severe or disabling conditions?	We appreciate the reviewer's question. No, we did not exclude participants presenting other health comorbidities (cancer, diabetes), since this is the reality of this age group. The inclusion criteria: to be able to read and speak English or French, and to be able to provide informed consent and willing to participate in a group discussion are used to exclude participants with dementia or other cognitive incapacity.
Page 4, line 27: The authors state that information on sexual orientation was collected. If this was relevant enough to be considered in the sampling method, should it be reported in Table 1? Also, I could not find this question in the discussion guide.	We thank the reviewer for identifying our error. In fact, we did not ask a question about sexual orientation. As such, this information is not presented and we removed 'sexual orientation' from the text.

Results	
Page 5, line 46: "lasted approximately two hours (+/- 35 minutes)" - Is this information the actual mean and standard deviation of focus group duration? If so, I believe it should be clearly stated	We have made this change.
Page 5, line 47: The same information on duration should be provided both for the focus groups and the individual interviews (i.e.: min-max duration, mean and SD)	We have made this change.
Table 1: I believe that information concerning patients' age range would provide a more complete picture of the sample.	Column 2 in Table 1 we changed the content for the age range.
In addition it would be important to have some information concerning the question "Are you suffering from a mental health issue?" Maybe adding another table would be useful to describe clinical/mental health information?	We have made this change.
Page 7, line 39: This information reinforces the need to have more detailed information concerning patients' age groups.	We thank the reviewer for this relevant comment. While, age seems to have an impact on how men experience the heart disease, this study design do not allow for this specific analysis. As we performed focus groups, we were not able to discriminate who was

	saying what to categorize verbatim by age. We included this comment as a limitation of this study.
Page 7, line 45: Once again, I would say it is important to know if the participants have other medical conditions, some of which may even increase the risk for cardiac events.	We agree with the reviewer's comment. Information on comorbidities would provide more information to describe the study sample. Unfortunately, we did not collect this data; this limitation has been added to the discussion. However, it is important to note that, In this paper, we do not address the risk for cardiac events, but we try to understand the psychological journey following a cardiac event in men.
Page 10, line 54 and 56: There is a typo in "behaviors" and "sense".	We have made this change.
Page 11, line 39: Please note the word "illness".	We have made this change.
Discussion	
Page 14, line 12: It should be "beliefs".	We have made this change.

Page 14, line 17: Throughout the manuscript, the authors use commas before "and". Please revise, since it is not needed in many cases.	We appreciate that some stylistic guides (e.g., APA style for journalistic writing) do not recommend the Oxford comma (i.e., commas before "and" in a list of three or more items). We find, however, that it reduces ambiguity and facilitates understanding in the text. As such, we have opted to continue with its use.
Page 14, line 31: "there still is".	We have made this change.
Page 14, line 36: "health". Please revise the text for typos.	We have made this change and fixed any typographical errors.
Discussion	
The discussion raised some important topics for men's health, but I feel they should be more thoroughly explored, namely by comparing with existing research on the subject addressed. Some questions that came to my mind are:	
-What kind of health care services are traditionally available after cardiac events in Canada?	We have added a section to address this in the discussion.
-Are the results from this study in line with what has been found in other (quantitative and qualitative) research, concerning the psychological impact of a cardiac event? What have these investigations shown?	Yes. We have clarified this in the discussion.
-Could some actions also be implemented among the health care providers? Is there some research on this?	Thank you for this comment; we added a paragraph that presents some recommendations for practice.
-Given the results, what types of interventions seem to be more needed or would be more useful among men with cardiac disease?	We have adjusted the text to address this.
Reviewer: 2	
1. If you have clinical variables of the sample available, I would recommend that you includes them in table 1. It would be interesting to get an impression of clinical characteristic, such as type of cardiac disease, cardiac arrest, implemented devices (ICD/CRT-D/P) and so on. Table 1 also need more formatting in order to better fit the numbers.	We agree that this information would be interesting to the reader. Accordingly, we have added this information. As this information was self-reported, it presents some limitations (i.e. lack of diagnosis precision and missing data). We have added this limitation to our discussion section.
2. In the limitations section the authors write that the sample was limited. Is this correct? Your sample are very large according to the design of a qualitative study. Please delete or explain the rationale for this argument.	The reviewer is absolutely correct! Our sample size is quite large. We have made this change to reflect the fact that our sample size was large for a qualitative study and that it is a strength rather than a limitation.

# **VERSION 2 – REVIEW**

REVIEWER	Ana Cristina Paredes
	University of Minho, Portugal
REVIEW RETURNED	02-Sep-2019

GENERAL COMMENTS	The authors have answered my comments and I believe that the quality and clarity of the manuscript has further increased. I have detailed bellow some additional issues.
	In the Design section of the abstract, please consider if it would be more accurate to state "focus groups and one-on-one interviews", since the focus groups were also semi-structured (group) interviews.
	Concerning the exclusion criteria, I understand that the authors did not exclude participants based on comorbidities and they have adequately justified this decision. I suggest stating this in the participants section.
	Results Page 6, line 50: Please remove "approximately" Table 1: Please consider if it would add value to the table to keep the mean (SD) information in addition do the age range.
	Also, I could not find in the Proof the additions made as answer to reviewer 2 first comment. I don't know if there was any issue in the attachment of the files or building the proof.

REVIEWER	Ingvild Morken Stavanger University Hospital, Norway
REVIEW RETURNED	05-Sep-2019

GENERAL COMMENTS	The authors have done a good job revising the document. I do not	l
	have more comments to make	

# **VERSION 2 – AUTHOR RESPONSE**

Comments	Revisions
Reviewer: 1	
Abstract	
In the Design section of the abstract, please consider if it would be more accurate to state "focus groups and one-on-one interviews", since the focus groups were also semi-structured (group) interviews.	The change was implemented as suggested by the reviewer
Concerning the exclusion criteria, I understand that the authors did not exclude participants based on comorbidities and they have adequately justified this decision. I suggest stating this in the participants section.	The change was implemented as suggested by the reviewer
Results	
Page 6, line 50: Please remove "approximately"	The change was implemented as suggested by the reviewer
Table 1: Please consider if it would add value to the table to keep the mean (SD) information in addition do the age range.	The change was implemented as suggested by the reviewer