Reviewer’s report

Title: Trauma- and stressor-related disorders among hematological cancer patients with and without stem cell transplantation: protocol of an interview-based study according to updated diagnostic criteria

Version: 0 Date: 28 Jun 2019

Reviewer: Ashley Nelson

Reviewer’s report:

This manuscript is a protocol paper describing the authors' plans to determine prevalence rates of trauma and stressor-related disorders among hematologic cancer patients (with and without stem cell transplant) using differential diagnostic interview methods, assess for sociodemographic and medical risk factors for these disorders, and compare patient values with normative values. Further understanding of rates of and risk factors for PTSD and other disorders in this population is justified given updates to diagnostic criteria within the DSM-5 and medical advances that may impact the experience of and emotional reaction to transplantation. The manuscript however raises a number of questions that limit my enthusiasm for the project in its present form.

In general, I found the justification for the study to be well-reasoned. However, while the authors spend considerable space describing study aims, the wording is vague and confusing in places. For example, the authors state that aim 3 is to "run comparisons between patients and norm values matched by age and gender." It's not clear to me what will be compared. Does this refer to PTSD, trauma- and stressor-related disorders, or all disorders assessed more generally, or to something else entirely? Please specify.

Consider revising statistical/methodological verbiage used in the study aims (e.g., "analyze" in line 116 (the first study aim) and "extract" on line 125 (in the second study aim)) to language that is more conceptual such as "investigate" or "examine."

What are the hypotheses for the three study aims? Please specify.

The ability to draw meaningful conclusions from this study, which proposes a cross-sectional design including a one-time post-transplant/post-treatment assessment, is somewhat concerning. For example, there will presumably be considerable variability with time since diagnosis and number and type of cancer treatment even prior to transplantation. Will these past treatments not also be relevant to trauma and stressor-related reactions? How will this be accounted for? It would be helpful for the authors to provide further justification for why this will not interfere with their ability to draw conclusions from their data.

I have some questions about several transplant-specific issues. As stated above, how will the authors determine that symptoms arise from the transplant/hospitalization versus previous treatments (for those patients who have had previous treatment's)? It appears that the authors have plans to control for comorbidity and remission status, but how will readmissions be
managed? What about transplants performed for curative intent versus performed for delaying disease progression, since it would be reasonable to speculate that this may impact stress-reactions? All of these factors could have important implications for the conclusions the authors are able to draw from the data collected. It would be helpful to understand how these key transplant specific factors will be thought about, accounted for, and used within the study.

I also have some questions about the timing of the clinical interview and validated questionnaires. Why 6-8 weeks after discharge for those patients receiving inpatient treatment? And why at the "end of treatment" for those individuals receiving outpatient treatment? Do the authors propose that these are windows that are directly comparable? Also, some centers perform autologous transplants largely or completely outpatient. Will all patients receiving transplant who are enrolled in the study have had an inpatient transplant?

With regard to the clinical interview, the Clinician-Administered PTSD Scale is the gold standard for PTSD assessment and I'm curious why the authors have chosen not to use this interview?

Some of the physical symptoms that are normative after a transplant (even 6-8 weeks out) are part of the criteria for a PTSD diagnosis (e.g., trouble falling or staying asleep, difficulty concentrating, being watchful or on guard, feeling distant or cut off from others). Could the authors describe more fully how they intend to manage this?

The authors also propose collecting data via a battery of questionnaires. Do the questionnaires described have cutoffs for clinically-meaningful symptoms, and, if so, would those be appropriate to report in addition to absolute percentages from the clinical interview?

General comment that the manuscript focuses quite heavily on those patients who received transplant at times to the detriment of the other 300 patients with hematologic cancers who are not receiving transplant.

English-language and grammatical editing needed throughout manuscript.

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.

Yes

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

Unable to assess
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

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal