

Peer Review File

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Reviewer A

Thank you for your submission of the manuscript. The concept of post-traumatic growth is borne out of Calhoun & Tedeschi's model "in which individual characteristics, support and disclosure, and more centrally, significant cognitive processing involving cognitive structures threatened or nullified by the traumatic events, play an important role" in such growth. The authors chose to review post-traumatic growth specifically in healthcare professionals following COVID-19 pandemic and how that may facilitate health outcomes for their patients, as indicated in their title. I personally find this relevant and topical in contributing to the exponential growth and wealth of literatures in health and wellbeing of the healthcare workers' (HCWs). Many works focus on 'fixing' the post-traumatic stress, but few investigate the aspect of resilience and transformation following stressful events.

Overall, the authors provide a coherent summary of the impact of post-traumatic growth on healthcare workers and the potential strategies in promoting such growth, albeit in the Discussion section of the manuscript which is inappropriate given the tentative methodology of this work – a review. On this note, I am unsure if this work is considered as a 'clinical practice review', let alone knowing what the components are for a clinical practice review (did the authors mean to conduct a clinical guideline review?). After reading the entire manuscript, this study maybe more suited to be a literature review type of study, although it does not appear to be scoping or systematic in nature. Given these reasons, the RIGHT statement may therefore not be appropriate to be used as the studies recruited are not 'practice guidelines'. Authors need to define and rationalize the above in order to proceed with their manuscript.

The following comments may be useful for authors should they consider revising the manuscript.

Comment 1:

1. Abstract and Introduction are not clear in laying the conceptual foundation for the study, i.e. why investigating 'post-traumatic growth'? What is the background of exploring 'growth' by quoting current clinical situations and how that is linked to the need to look into 'growth'? Specifically, it is unclear if authors have checked the manuscript to ensure consistency in definitions and their expression of ideas, e.g. 'growth' has a positive connotation, but this is not clear:

Reply 1:

Thank you for your comment. The conceptual foundation for exploring post-traumatic growth among healthcare professionals post COVID-19 has been elaborated in lines 34 to 50.

Changes in the text:

Post-traumatic stress has had an impact on psychological growth, causing a debilitating negative effect on mental health with increases in anxiety, depression, and post-traumatic stress among healthcare professionals and members of the general population (4). The varied definitions of post-traumatic growth have led to the understanding that there is not one definitive description, but rather an array of concepts that arise from the term post-traumatic growth. According to Mayerson et al. post-traumatic growth has been define as a positive psychological change that may occur when individuals encounter a traumatic experience, a crisis, or a highly stressful event (5). Post-traumatic growth has also been defined as reduced psychological growth reported by individuals who have experienced a traumatic event at any point during their lifetime, and fueled by humans' innate need to sustain and improve their health and wellbeing (6). The symptoms of reduced psychological growth have been evidenced by reexperiencing traumatic events through intrusive memories or flashbacks, avoiding trauma-related stimuli, negative changes in mood and cognition including fear, sadness, guilt, or emotional numbing (7). Contrary, psychological growth is identified as a consequence following adversity in life that challenges the pre-trauma perspectives and views that shape a person's belief, goals or assumptions about everyday life (8).

Comment 2:

2. Page 2, line 66-69: Definition of 'post-traumatic growth' is not clear – why is it 'reduced'?

e.g. later on in Table 1, I noted that the studies you gathered suggested otherwise.

Reply 2:

Thank you for your comment. The definition of post-traumatic growth has been further clarified in line 37 to 44. The key outcome data in Table 1 highlights the varied effects of post-traumatic growth, which relates to the varied definitions of the term as further explored on line 34 to 450.

Changes in the text:

The varied definitions of post-traumatic growth have led to the understanding that there is not one definitive description, but rather an array of concepts that arise from the term post-traumatic growth. According to Mayerson et al. post-traumatic growth has been define as a positive psychological change that may occur when individuals encounter a traumatic experience, a crisis, or a highly stressful event (5). Post-traumatic growth has also been defined as reduced psychological growth reported by individuals who have experienced a traumatic event at any point during their lifetime, and fueled by humans' innate need to sustain and improve their health and wellbeing (6).

Comment 3:

3. Page 2, line 82-85: the RIGHT statement appears to be inappropriate for this study for the reasons stated above.

Reply 3:

Thank you for your comment. The RIGHT statement has been removed accordingly.

Comment 4:

4. Page 3, line 94-95: some conceptual misunderstandings, how would growth hinder health outcomes? This requires further elaboration and is not made clear in the Introduction.

Reply 4:

Thank you for your comment. This has been elaborated on line 57 to 60.

Changes in the text:

The assumption that traumatic experiences may challenge or even shatter one's core beliefs about self, others, and the world (11), could hinder healthcare workforce productivity leading to compromised health outcomes for the patient and client population group.

Comment 5:

5. Page 3, line 98-99: need justification of why only NIH database was utilised. Other databases like Medline and PsychInfo also consist of social science and conceptual research in healthcare workers.

Reply 5:

Thank you for your comment. The search was targeted at an interprofessional approach that focused on a variety of different healthcare professionals. The NLM database was suited for this purpose.

Comment 6:

6. Page 3, line 100-102: search strategies need to be specified, i.e. where are the AND and OR placed in your search terms? What are your search terms with or without MESH terms etc.?

Reply 6:

Thank you for your comment. This has been further elaborated on lines 74 to 80.

Changes in the text:

This clinical practice review was constructed using the National Library of Medicine database (NLM). This database was a credible source for obtaining manuscripts that focused on the topic being explored. The search was conducted using an interprofessional approach that focused on a variety of different healthcare professionals. The following search terms were post-traumatic growth, COVID-19, healthcare, and outcomes were inserted into the database combined with Boolean

search operators AND and OR. These search terms were used to identify specific manuscripts that focused on the topic being studied.

Comment 7:

7. Under Characteristics of included studies, authors should specify the demographics of the subjects from the included studies, as far as possible. Some tentative themes should be summarised from the included studies under Results even though authors did not intend to do a systematic review in the first place. Most of the potential contents from Results appear to be in the Discussion section, however, no clear attempt in synthesising and making inference of the included studies was shown in this section. Instead, additional studies outside the scope of the included studies were used to illustrate the authors' agenda.

Reply 7:

Thank you for your comment. The demographics of the subjects from the included studies have been further specified on lines 132 to 133, 138 to 141, 150 to 151, 154 to 155, 173 to 174, 180 to 182, 204 to 205, 288 to 230, 238 to 240, 249, 260 to 261.

Comment 8:

8. Figures and tables need to be referenced in the text throughout the manuscript.

Reply 8:

Table 1 has been referenced accordingly.

Comment 9:

9. Figure 1: flow diagram does not add up (e.g. arrow should be pointing to the next set of included articles, with a branching arrow showing the reasons why some articles are excluded). Please consider referring to the PRISMA guideline for the correct way to draw flow diagram for literature review with inclusions and exclusions.
See PRISMA

Reply 9:

Thank you for your comment. This has been revised accordingly.

Comment 10:

10. Page 7, line 290-296: The implications are not summative of your findings.

Reply 10:

Thank you for your comment. The implications have been further elaborated to be summative of the findings on lines 267-275 and 283-286.

Reviewer B

This review may be of interest as it aims at evaluating the impact of post-traumatic growth among healthcare professionals after the COVID-19 pandemic, topic scanty investigated in the literature. The main limitation of the study is the paucity of studies

included in the review.

I report my comments below:

Abstract

Comment 1:

"The COVID-19 pandemic had a physical and psychological impact on many healthcare professionals, especially for frontline workers and allied health professionals, experiencing some degree of trauma. A significant proportion of healthcare workers reported traumatic stress and symptoms of post-traumatic stress disorder because of the pandemic. A significant proportion of healthcare workers reported traumatic stress and symptoms of post-traumatic stress disorder because of the pandemic (2). The outcome of trauma is exhibited in various ways such as post- traumatic stress to growth and positive emotions (3)."

I think this paragraph should be modified by authors: post-traumatic growth is not clearly defined and that makes the aim of the review less understandable.

Reply 1:

Thank you for your comment. The paragraph regarding the post-traumatic growth definition has been revised accordingly on lines 37 to 44.

Introduction

Comment 2:

"A significant proportion of healthcare workers reported traumatic stress and symptoms of post-traumatic stress disorder because of the pandemic (2)."

I agree with the statement, but I think this paragraph should be amplified and strengthened by referring to what observed among Healthcare Workers facing COVID-19 pandemic (for a recent review on this issue see doi: 10.2147/NDT.S396540; doi: 10.2174/1745017902117010242)

"The outcome of trauma is exhibited in various ways such as post- traumatic stress to growth and positive emotions (3). Post-traumatic growth has been defined as reduced psychological growth reported by individuals who have experienced a traumatic event at any point during their lifetime, and fueled by humans' innate need to sustain and improve their health and wellbeing (4)."

Also in this case, the definition of post-traumatic growth should be enlarged by referring to more literature data. Second, the sentence "Post-traumatic growth has been defined as reduced psychological growth" is not clear at all in my opinion, please clarify this issue.

Reply 2:

Thank you for your comment. The paragraph regarding the post-traumatic growth definition has been revised accordingly on lines 37 to 44.