Reviewer’s report

Title: Persistent Mental and Physical Health Impact of Exposure to the September 11, 2001 World Trade Center Attacks

Version: 0 Date: 17 Oct 2018

Reviewer: Faith Canan

Reviewer's report:

In this study the authors aimed to investigate the long-term effects of the September 11, 2001 World Trade Center Attacks on certain physical and mental health variables along with health-related quality of life in a large cohort. This article is of importance because it has the potential of furthering the knowledge and understanding of the long-term consequences of World Trade Center Attacks. This topic may be of interest for publication, but certain flaws reduce enthusiasm for this manuscript. Below are my comments.

* The authors used self-rating questionnaires (‘PTSD Checklist’ and ‘Patient Health Questionnaire’) to evaluate PTSD and depression symptoms, which is the main shortcoming of the study.

* Screening instruments fail to assess all criteria for the diagnosis of PTSD, including establishing exposure to a traumatic event, differentiating new from pre-disaster symptoms, determining duration of symptoms, and demonstrating the clinical or functional significance of the symptoms. PTSD symptom tool does not specifically anchor the symptoms in a qualifying disaster trauma exposure.

* Applying the concept of "probable PTSD" may inflate estimates of PTSD and overdiagnose individual cases.

* Self-report questionnaires, such as PHQ, do not perform well as diagnostic tools for depression at any cutoff.

* Employing self-report methods to diagnose asthma and GER might lead to inflated prevalence of these conditions, as well.

* What was the participation rate in the registry? Can the authors provide some estimate of the participation rate in the registry sample? If this is a nonrepresentative sample, the limitations section of the manuscript should discuss this limitation.
The authors assume that the problems (including physical symptoms) observed after the 9/11 WTC attacks are caused by the 9/11 WTC attacks. The design of this study does not allow drawing causal associations.

The limitations section should clearly state that the authors did not diagnose PTSD or major depressive disorder, and the authors should not claim that they have studied these diagnoses.

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An article of importance in its field

**Quality of written English**
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