

Reply letter to reviewers

Ms. 67319

Title: Is burnout a mediating factor between sharps injury and work-related factors or musculoskeletal pain?

Reviewer #1:

This study evaluated the relationship between burnout, musculoskeletal pain, and sharps injuries (SIs) in medical workers, through specific questionnaires. Burnout contributed to SIs occurrence; in particular, it mediated the relationship between SIs and frequent musculoskeletal pain, overtime work, and irregular shift work. The topic is of notable importance, the study is well conducted and the results are novel. The paper well written. I have the following comments:

-In the Introduction, the authors report that «]. Musculoskeletal (MS) in the lower back, shoulders, and neck is most commonly reported[14]. In addition, the anatomical sites of and the risk factors for MS pain differ depending on the occupational group[15]. »Myofascial pain syndromes from trigger points are among the main causes of musculoskeletal pain due to traumatic/microtraumatic events (often secondary to occupational postures/attitudes/activities). These conditions should be quoted (e.g., Myofascial pain syndromes: clinical and pathophysiological aspects. *Clin J Pain*. 1991;7 Suppl 1:S16-22.)

ANS: Thank you for your comments. The paragraphs noted in the manuscript “In addition, the anatomical sites of and the risk factors for MS pain differ depending on the occupational group[15]” have rewritten to “In addition, myofascial pain syndromes from trigger points are among the main causes of musculoskeletal pain due to traumatic/micro traumatic events (often secondary to occupational postures/attitudes/activities) ^[15].” References [15] will be replaced by new literature “Vecchiet L, Giamberardino MA, Saggini R. Myofascial pain syndromes: clinical and pathophysiological aspects. *Clin J Pain*. 1991;7 Suppl 1 S16-22. [PMID: 1810517]”.

-There are many Tables, often too charged and difficult to read. It would be of help to the reader if at least some of these could be transformed into Figures.

ANS: Thank you for your comments. We have changed Table 4 to Figure 1a and 1b.

Reviewer #2

A well written good conceived manuscript trying to establish a relationship between injuries and burnout in medical personnel. Several formal comments and suggestions are inserted below Comments.

In the abstract I suggest the authors insert the type of study that has been performed (observational study? Cohort) Please insert as well in the abstract the modality of performing the study (questionnaire based, cross sectional)

ANS: Thank you for your comments. A new paragraph will be inserted as "This questionnaire was used for an observational and cross-sectional study, which was based on members at a hospital affiliated with a medical university in Taichung, Taiwan, in 2020."

Introduction is well written and appropriate to the topic. In my opinion there is a need to describe and classify more clear what sharp injury means and what are the degrees of disability induced by the injury as this is a consistent confounder for the occurrence of burnout.

ANS: Thank you for your comments. We have inserted new paragraph in Introduction as "The US Centers for Disease Control and Prevention defines sharp injuries (SI) as an exposure event (blood/body fluid exposure) that occurs when a needle or other sharp object penetrates the skin. SI frequently occurs among health care workers and constitutes a critical infective problem upon contamination of the sharp object."

Have the NMQ and CBI questionnaires been translated and validated in the mother tongue of respective health workers? If so, please mention. It is well known questionnaires assessing quality of life need to be provided in maternal language.

ANS: Thank you for your comments. We have inserted new paragraphs in material and methods as below:

This study adopted the NMQ modified and translated by the Taiwan Institute of Occupational Safety and Health.

The present study used the Chinese version of CBI, which has proven to be a reliable and valid tool for assessment of burnout problems.^[27];

Reference [27] is replaced by new literature “Yeh W, Cheng Y, Chen M, Chiu AWH. Development and validation of an occupational burnout inventory.

Taiwan J Public Health. 2008;27(5):349-364 [DOI: 10.6288/TJPH2008-27-05-01]”

It is to be noted that the study has been performed in the context of a pandemic situation which has been and still is more taxing on medical personnel. In my opinion this study needs to be replicated during non pandemic time and the results compared as it will further give insights within regular work conditions and exposure of health care workers.

ANS: Thank you for your comments. We have inserted a new paragraph in Conclusion section as “This study was performed in the context of COVID-19 pandemic, which may has been more demanding on medical personnel than non-pandemic period. Therefore, a similar study that assesses the regular work conditions and exposure of health care workers during the non-pandemic period should be replicated and compared with the result of the pandemic period.”

Overall the findings in this study are very well documented and supported by the statistics, comments and discussions are valid offering a scientific support for prevention of both work related injuries as well as of burnout in this category of population.

ANS: Thank you for your comments.

4 LANGUAGE QUALITY

Please resolve all language issues in the manuscript based on the peer review report. Please be sure to have a native-English speaker edit the manuscript for grammar, sentence structure, word usage, spelling, capitalization, punctuation,

format, and general readability, so that the manuscript's language will meet our direct publishing needs.

ANS: Thank you for your comments. We have been done it as Suppl. 1.

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Primary Editor Name*: Andrew B



Dear Author:

Thank you for entrusting us with your document and opting for our 標準編修服務 (單次校對).

We have edited your assignment GWPJGT-61 for basic language and grammar, from the aspect of fluency, and would like to share our experience in editing your document.

Overall, we have made moderate revisions to the document in terms of language and grammar. We have also made some sentence reconstructions and word choice changes for accuracy and enhanced clarity. We hope that the revisions meet your expectations from our service.

As a step toward finalization, we suggest that you check all changes/clarifications in the edited file, as this is important.

We wish you the very best and look forward to working with you again.

Sincerely,

Your Editor

Andrew B

May 29, 2021