

Review of: "Skin related health issues among health care workers due to utilizing of personal protective equipment during COVID-19 pandemic in Pakistan"

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Potential competing interests: The author(s) declared that no potential competing interests exist.

Topic: Skin related health issues among health care workers due to utilizing of personal protective equipment during COVID-19 pandemic in Pakistan

Summary

The study aimed to determine skin related issues in health care workers as a result of applying personal protective equipment (PPE) in Pakistan. Quantitative descriptive cross-sectional study was conducted to determine skin related issues in Karachi-Pakistan from May to October 2021. A sample size of 52 health workers was selected through the purposive sampling technique. Validity and reliability of the questionnaire were established. All ethical issues were strictly adhered to. The study revealed that majority of the participants were within the age group 26-35 years, majority were nurses, majority did not apply any type of skin care related products or material, majority were comfortable with the use of PPE, and majority of those who applied PPE had broken skin. In conclusion, the study yielded that the trend of adverse events was also related to the number of consecutive days of PPE use and the type and model of PPE.

Comment

Considering the rate at which the COVID-19 infection spread across the globe with its morbidity effects, frontline health workers were mostly at risk. The only surest way to reduce the spread of the infection is the use of non-pharmaceutical interventions of which the application of PPE became paramount. Instances of the adverse effects of these PPEs on the skin of users have been reported. There is therefore, the need to investigate further on these adverse skin reactions to prescribe interventions which can eradicate or minimize the skin related health issues among PPE users, especially, the frontline healthcare workers. This establishes the significance of the above study.

However, I have the following major concerns:

1. The abstract was poorly written. No citations are required in the introductory section of the abstract.
2. Suggestively, the introductory section should have briefly set a background to reflect the trend of PPEs usage among health workers in Pakistan, then a motivation for the study can be established before stating the aim of the study.
3. The results were poorly reported.
4. Also, in the abstract, the open statement for the conclusion was not part of the study. It is very difficult to relate where

the study reported results on various approaches adopted to investigate skin adverse events. This needs to be clarified.

5. In the introduction, no gap was established on the basis of which this study was warranted. Since this study is not the first on PPEs skin related health issues, a justification must be made in the introduction for carrying out the study.

6. The use of mathematical symbols like > (for more than) or < (for less than) should be avoided in the text (as used in Section 1).

7. Full meanings of acronyms or abbreviations should be written first with the abbreviations in parenthesis before such abbreviations can subsequently be used.

8. The English was poorly written; this must be considered in all sections of the manuscript. It must be thoroughly revised by an expert of the language.

9. In the methodology, the justification for using 52 out of the calculated sample size of 100 is not enough. If computation shows that the sample size is 100 as indicated, then 52 is less representative. Reasons, should be given as to why time constituted a constraint.

10. Additionally, it is difficult to connect when the author(s) reported of using purposive sampling, while at the same time complained about time limitations.

11. The values for validity and reliability tests need to be explained. The layman does not understand 0.75 and 0.82 respectively. The same should be done for the relevancy and clarity tests.

This should also be checked in section 2.2, which I think was an omission: "Moreover, the reliability of the tool was calculated by ...and it was found 0.75 and 0.82, respectively.

12. Reason for the choice of sampling technique need to be explained.

13. The results are not clear.

14. Some typographical errors, example table 01.

15. Some headings under section 3, began with tables, for instance, **Table. 04. Different problems...while using PPE.**

16. The heading of Table 02, does not reflect its content. There is absolutely nothing about previous history of skin allergy. Once, it talks about correlation with previous history of allergy, it is expected that there will be a cross tabulation where the correlation can be investigated.

17. The use of percentages cannot give a valid conclusion on the relationship between the application of PPEs and skin related health issues. Since the questions are mostly "yes" or "no", a Probit or Tobit analysis would have been a valid or a more appropriate approach. There is the need to establish the strength of the association between skin related health issues and PPE usage. Among health workers.

18. The discussion of the results began with stamen that does not form part of the findings. The discussion section should mainly be devoted to the discussion of the findings of the study, and where applicable, their abstractions or conformity with findings of other related studies.

19. In conclusion, this study needs to be redone with major consideration to data and analytical technique. If "yes" or "no" options are still going to be considered, I propose the use of the Probit model. It is also my candid suggestion that a

critical review of the English should be considered.