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OPEN PEER REVIEW

Moral Injury: A Challenge for Healthcare Workers During the Pandemic and Beyond

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About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

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1 Original submission

4 comments · 8 Apr 2024 – 9 May 2024

Sajedeh Seyed-Alipour Reviewer

MINOR REVISION 8 Apr 2024

Comments to the Authors:
Thank you for the opportunity to review this manuscript.
I appreciate the paper's aim to focus on “Moral Injury: A Challenge for Healthcare Workers during the Pandemic and Beyond”.
I hope the authors will find my suggestions useful.
In general, the context was well written in English, but the tables are not well designed. Please draw the tables again in a better-designed format.
Title: There are no similar studies in the Iranian population, so this study has novelty in the Iranian population.
There are no abbreviations in the title, and it reflects the content appropriately.
Subject: The article is within the scope of the journal.
Keywords: Stress and Moral Injury are not selected from MeSH.
Please correct these typos:
Once you have explained the abbreviation, there is no need to repeat it, as in lines 37 and 40, HealthCare Professionals (HCPs).
Abstract, line 12: suppressing
Abstract, line 13: as well as several mental health
Abstract, line 16: We aimed to assess
Abstract, line 25: a higher
Introduction, line 52: some cases deep betrayal
Introduction, line 66: In order to: To
Introduction, line 71: the covid-19
method, line 76: began with a group of nurses
line 77: who were; afterward
line 85: the general population
line 101: In order to: To
line 117: percentages
line 129: among the participants
line 132: of the DASS-21
line 148: had a clinically
line 159: with the previous
line 181: the general population
line 184: injury were significantly
line 147,173,187, 209, 214, 243: the covid-19
line 235: showed a higher
Abstract: It is well structured.
Introduction: The objectives and aims are clearly stated.
Method: The study design is sufficiently described. The selection of study participants is described.
Explain the ROC in line 106.
Inclusion/Exclusion Criteria are Explained.
Results: The content of the tables must be centered.
The Tables and Figures are not well designed. The main findings are stated.

Discussion: Key results, limitations, integration with prior work, and interpretation of results are well written.
References: References are properly written.
References 6, 10, 11, 12, 13, 14, 16, 20, 25, 26, 28, 29, 36, 37, 38, 46, 47, 49, 51, 52 and 53 are from over 5 years ago.
Limitations, Funding, and Conflicts of Interest are stated.

Referee 1 Reviewer — MINOR REVISION — 13 Apr 2024

The manuscript entitled “Moral Injury: A Challenge for Healthcare Workers during the Pandemic and Beyond” reports the rates of moral injury and psychological problems in the COVID-19 era and their relationship.
Abstract:
The results and conclusion just give the prevalence of moral injury and psychological problems and are not consistent with the background and objective.
In the conclusion, lines 30 and 31 are not clear and are not consistent with the results section.
The introduction was well written and organized.
Method:
Please specify the wards where the HCPs worked.
Were there any inclusion or exclusion criteria?
Results:
Because the information in Table 1 is highlighted in the text, there is no need for Table 1. Keep either the text or Table 1.
Table 2 can be an interesting figure.
Tables 4 and 6 can be omitted and their data can be cited in the text.
There are too many tables.
The discussion was well written.

Associate Editor — MAJOR REVISION — 4 May 2024

Dear authors
According to the reviewers’ comments, this paper needs a major revision. Please find the comments and let us have the revised paper.
best

Editor-in-Chief — MAJOR REVISION — 9 May 2024

Thank you for submitting your manuscript for consideration for publication in the Iranian Journal of Psychiatry and Behavioral Sciences. Your paper has been evaluated by external peer reviewers. Please revise your manuscript according to the reviewers’ comments.

After revision, authors are obliged to upload a Word file containing the reviewers’ comments and their replies to all comments, one by one.

Besides, please pay attention to the word count limitation:
Word count limits are stated at this link: http://kowsarpub.com/en/index.php/services/for-authors/895-word-count

We look forward to receiving your revised manuscript. Thank you for sending your work to the Iranian Journal of Psychiatry and Behavioral Sciences. The full manuscript file must be highlighted to indicate revised text.

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Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Reviewer 2:

General comments:

this work has potential but needs more work still, especially on results for evaluating the relationship between variables. My comments are as follows:

Comment 1: There is a lot of heterogeneity among the study population because the nature of work and mental attitude of each group (nursing, medical students, …) is different. How do you deal with this problem? It is suggested that to investigate the relationship between depression, anxiety, and stress with moral injury by adjusting the effect of this variable, appropriate regression models are used.

Author response: In our study, we primarily used descriptive statistics and univariate analyses (independent t-test, Pearson and Spearman correlation coefficient tests, and One-Way ANOVA) for several reasons:

Our primary aim was to assess the prevalence of moral injury among healthcare professionals during the COVID-19 pandemic and explore its correlation with symptoms of depression, anxiety, and stress. These objectives can be effectively addressed using descriptive statistics and correlation analyses, which help in identifying and quantifying relationships between variables without the need for a more complex regression model. Additionally, with a sample size of 333 participants, the complexity of a regression analysis might not provide additional value over the simpler univariate analyses, especially given the relatively straightforward relationships we aimed to investigate. Regression models require careful consideration of multicollinearity, interaction terms, and the potential for overfitting, particularly in smaller samples.

During the analysis, we found correlation and ANOVA suitable for the preliminary identification of significant associations between moral injury and psychological symptoms, since these methods allowed us to see direct relationships and group differences clearly, which was sufficient for the scope of our initial analysis. Given that the study was exploratory, focusing on describing and understanding the relationship between moral injury and psychological symptoms during crisis, we used simpler statistical methods. These methods provided clear and interpretable results that laid the groundwork for future, more detailed analyses.

However, it is worth noting that regression analysis could indeed be a valuable next step for further research. A multivariable regression model could help control for potential confounding factors and assess the independent effects of various predictors on outcomes such as depression, anxiety, and stress. Future studies with larger sample sizes and more complex designs could benefit from regression analysis to provide deeper insights and more robust conclusions.

Comment 2: What is the reason for using the chain-referral sampling method? A stratified sampling method with a proportional allocation seems more appropriate.

Author response: We agree with the reviewer. However, due to our restrictions in sampling caused by the COVID-19 lockdown, we were not able to conduct a stratified sampling method.

Comment 3: Please report the results of appropriate statistical tests in Table 2.

Author response: We reported the results of the table 2 in frequency and percentages to avoid confusion and to make the results more comprehensive for the readers.

Comment 4: The interpretation of Table 3 needs to be corrected, please check it.

Author response: We revised the interpretation of Table 3 according to your comment.

Comment 5: It is suggested to merge tables 5 and 3.

Author response: We merged the mentioned tables.

Comment 6: To evaluate the relationship between depression, anxiety, and stress with moral injury, it is suggested to use appropriate regression models to adjust the effect of potential confounders.

Author response: Thank you for your valuable comment. Your suggestion to use appropriate regression models to evaluate the relationship between depression, anxiety, and stress with moral injury while adjusting for potential confounders is well noted. In our study, we used both univariate and multivariable analyses to explore these relationships. Specifically, we conducted a One-Way ANOVA to check for the influence of categorical variables and applied Pearson and Spearman correlation coefficients to assess the relationships between continuous variables.

However, multiple linear regression or logistic regression, could provide a more nuanced understanding by adjusting for confounding variables such as age, gender, marital status, and professional role (nurse, intern, resident). These models would allow us to isolate the specific effect of moral injury on depression, anxiety, and stress, providing a clearer picture of these associations.

However, due to the small sample size and the adequacy of correlation and ANOVA for our analysis, we found these tests sufficient for our initial analysis.

In future analyses, we will consider incorporating multiple regression models to better control for potential confounders. This approach will enhance the robustness of our findings and provide a more detailed understanding of the interplay between moral injury and psychological symptoms among healthcare professionals.

Thank you again for your insightful feedback.

Reviewer 3:

The manuscript entitled “Moral Injury: A Challenge for Healthcare Workers during the Pandemic and Beyond” reports the rate of moral injury and psychological problems in covid-19 era and their relation.

Abstract:

The result and conclusion just give the prevalence of moral injury and psychological problems and are not consistent with the background and objective.

Author response: We revised the mentioned sections to be consistent with the background and objectives.

In the conclusion, lines 30, and 31 were not clear and it is not consistent with the result part.

Author response: We altered this part to be more clear and consistent with the result section.

The introduction was well-written and organized.

Method:

Please cite the wards where the HCPs worked.

Author response: Due to the restrictions caused by the COVID-19 pandemic, and considering our sampling method, the participants were selected from various wards, and we were not able to classify our samples based on their serving ward.

Were there any inclusion or exclusion criteria?

Author response: We added a subheading named as “Inclusion and exclusion criteria” to address its missing from the text.

Results:

Due to highlighting information in Table 1 in the text, there is no need for Table 1. Keep text or table 1.

Author response: We summarized the text explaining Table 1 in details.

Table 2 can be an interesting figure.

Author response: Thank you for your innovative recommendation. We made a figure out of table 2 and cited it in the text.

Tables 4 and 6 can be omitted and their data can be cited in the text.

Author response: According to your recommendation, we omitted this table and cited the data in the text.

The number of tables is too many.

Author response: We reduced the number of tables.

the discussion was well written.

Author response: Thank you for your kind comments regarding the strengths of our study.

Reviewer 4:

Comments to the Authors:

Thank you for the opportunity to review this manuscript.

I appreciate the paper's aim to focus on" Moral Injury: A Challenge for Healthcare Workers during the Pandemic and Beyond".

I hope the authors will find my suggestions useful.

Author response: Dear Reviewer,

Thank you for all your positive comments regarding the novelty of our work. We have checked all your beneficial comments and revised the text accordingly.

In general, the context was well written in English but, the tables are not well designed, please draw the tables again in a better-designed format.

Author response: According to your suggestion, we modified the tables to be more understandable.

Title: There are no the same studies in the Iranian population, this study has novelty in the Iranian population.

There are no abbreviations in the title, and it reflects the content, appropriately.

Subject: The article is within the scope of the journal.

Keywords: Stress, and Moral Injury, are not selected from MeSH.

Author response: We selected the keywords from MeSH terms.

Please correct these typos:

Once you explained the abbreviation, there is no need to repeat it, as lines 37 and 40, HealthCare Professionals (HCPs).

Author response: We agree with the reviewer. We revised this section.

Abstract, line 12: suppressing

Abstract, line 13: as well as several mental health

Abstract, line 16: We aimed to assess

Abstract, line 25: a higher

Introduction, line 52: some cases deep betrayal

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line 148: had a clinically

line 159: with the previous

line 181: the general population

line 184: injury were significantly

line 147,173,187, 209, 214, 243: the covid-19

line 235: showed a higher

Author response: We revised all typos according to your recommendation.

Abstract: It is well structured.

Introduction: the objectives and aims are clearly stated.

Method: The study design is sufficiently described. The study participants selection is described.

Explain the ROC in line 106.

Author response: The Receiver Operating Characteristic (ROC) curve is a graphical plot used to evaluate the diagnostic performance of a binary classifier system. In this study, this tool was used to assess how well the MISS-HP-Persian questionnaire can distinguish between healthcare professionals with and without clinically significant moral injury symptoms. We clarified this term in the methods section.

Inclusion/Exclusion Criteria are Explained.

Results: the content of the tables must be centered.

Author response: We centered the content of the tables.

The Tables and Figures are not well designed. The main findings are stated.

Author response: We modified the tables to be more comprehensive.

Discussion: Key results, limitations, integration with prior work, and interpretation of results are well written.

References: references are properly written.

references 6, 10, 11, 12, 13, 14, 16, 20, 25, 26, 28, 29, 36, 37, 38, 46, 47, 49, 51, 52 and 53 are from over 5 years ago.

Author response: We removed all outdated references and replaced them with up-to-date ones.

Limitations, Funding, and Conflicts of Interest are stated.

2 Revision 1

4 comments · 9 Jun 2024 – 22 Jun 2024

Referee 1 Reviewer — ACCEPT 9 Jun 2024

Thank you for the revision.
All comments were addressed well.

Sajedeh Seyed-Alipour Reviewer — MINOR REVISION 16 Jun 2024

Thanks for revising the manuscript. Please write the captions of figures under the figures, and delete the old references.

Associate Editor — MINOR REVISION 21 Jun 2024

Dear authors,
Thanks for submitting your paper to ijpbs. According to the reviewers' comments, just some minor improvement is needed before this paper can be accepted for publication.
Best
AE

Editor-in-Chief — MINOR REVISION 22 Jun 2024

Thank you for your recent revisions.
Your paper has now been evaluated again. According to the reviewers' and associate editor's comments, it needs some more revisions. Please make your revisions according to these comments. I would appreciate it if you would make the revisions as soon as possible using the track changes mode in MS Word and colored text.

3

Revision 2

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Reviewer 1:

Thank you for the revision.

All comments were addressed well.

Author response: Thank you for your positive feedback. We are pleased to hear that our revisions have satisfactorily addressed all your comments.

Reviewer 2:

Thanks for revising the manuscript. Please write the captions of figures under the figures, and delete the old references.

Author response: We appreciate your feedback. We have now placed the captions directly under the figures and have deleted the old and substituted them with new ones wherever possible.

Reviewer 3:

The present article is a valuable research work and has had noteworthy results.

After the changes made, many problems have been fixed, but still for me, the method of reaching the sample size and the type of sampling, as well as why the questionnaires used are chosen, are questions.

Author response: Dear Reviewer,

Thank you for your encouraging feedback! We have checked all your comments and revised them in the text as follows:

The number of the statistical population was estimated to be around 3000 people, and according to the type of study, the sample size was estimated to be at least 300 people, using the Krejcie and Morgan table, which was developed to estimate the sample size in descriptive studies

Due to the limitations we faced during the implementation of this study, the sampling method used was chain-referral sampling, also known as snowball sampling. This technique started with an initial group of nurses, medical interns, and residents who were invited to participate in the study. Afterward, the initial group of participants were asked to distribute the online questionnaire among their colleagues. This method was chosen due to the difficulty in accessing a comprehensive list of HCPs during the pandemic and to ensure a broad reach within the target population. We added a new subheading to the methods section entitled *"Sample Size and Sampling Method"* addressing this concern.

The Depression Anxiety Stress Scales (DASS-21) is a widely used self-report instrument designed to measure the levels of depression, anxiety, and stress among participants. It is suitable for both the general population and clinical settings.

Moral Injury Symptom Scale-Healthcare Professionals (MISS-HP) is also specifically designed to measure moral injury among healthcare professionals. Due to the precise evaluation this questionnaire could provide for us, we used this questionnaire to assess moral injury outcomes in our study.

It is mentioned that validation of the MISS-HP questionnaire was done in a pilot study, but no reference was given to it.

Author response: We provided a reference for this section.

The duration of work experience is included in the Supplementary questionnaire and its results are shown in the table, but it is not mentioned in the article. Has it been analyzed and reviewed?

Author response: The history of the years of profession was obtained from the participants, and the data was analyzed. However, since its relationship with depression, stress, anxiety, and moral injury was not significant, we did not include the results in table 3 and in the text to avoid overstatement. However, we included the quantitative data of years of profession to the results section for your further consideration. We also added the results of our analysis into table 3.

Also, what is the difference between questions 9 and 10 in the attached questionnaire and what was the result of the analysis of the answers?

Author response: We apologize for this typo. Question 9 evaluates previous history of COVID-19 infection, while question 10 assesses previous history of hospitalization due to COVID-19. We corrected this typo.

Associate Editor's Comments:

Dear authors

Thanks for submiting your paper in ijpbs. According to reviewers' comments, just some minor improvement is needed before accepting this paper for publication.

Best

AE

Author response: We are grateful for the opportunity to improve our manuscript. We have made the minor revisions suggested by the reviewers. Thank you for your guidance and support.

Sincerely,

3 Revision 2

2 comments · 8 Jul 2024 – 17 Jul 2024

Associate Editor

ACCEPT 8 Jul 2024

Dear authors
Thanks for the revisions.
best

Editor-in-Chief

ACCEPT 17 Jul 2024

We have completed our review of your manuscript and are pleased to inform you that it is considered for publication in the IJPBS. Note that the publication of your article will only be finalized upon your cooperation with the editorial process.
Thank you for your fine contribution. On behalf of the Editors of IJPBS, we look forward to your continued contributions to the Journal.