Journal of Nursing and Midwifery Sciences
Volume 11 · Issue 1 · e142568

OPEN PEER REVIEW

Comparison of the Effect of Yoga and Aerobic Exercise on Nurses' Burnout: A Randomized Controlled Trial

Saedeh Faramarzi, Ali Dehghani, Mohsen Hojat

SUBMITTED	REVISED	ACCEPTED	DOI
7 Nov 2023	14 Jan 2024	14 Jan 2024	10.5812/jnms-142568

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.

More about open peer review: brieflands.com/knowledgebase/opr

Contents

1 **Original submission** Referee 1, Leila Mahasti Jouybari 2
2 **Revision 1** Associate Editor 5
Authors' reply to reviewers 6
Reviewer and editor comments 10
3 **Revision 2** Editor-in-Chief 11
Authors' reply to reviewers 12
Reviewer and editor comments 16
4 **Revision 3** 17
Authors' reply to reviewers 18
Reviewer and editor comments 21
5 **Revision 4** 22
Authors' reply to reviewers 23
Reviewer and editor comments 24

1 Original submission

2 comments · 20 Nov 2023 – 24 Nov 2023

Referee 1 Reviewer

MAJOR REVISION 20 Nov 2023

Hi, Dear
Thank you for the opportunity to review this manuscript.
I hope my comments were useful for the authors. This manuscript compares the effects of yoga exercises and aerobic exercises on nurses' burnout. Although the effects of these two methods have been investigated separately in other studies, this study compares these two methods.

Comments to the Authors:

- Title:
The purpose of the study is not consistent with the title of the study. The purpose of the study is to compare the effects of two methods on nurses' burnout, but the title refers to the effects of the two methods rather than their comparison.

- Abstract:
1. It is suggested to revise the study design.
2. It is suggested to report the average burnout score or its changes in the study groups.
3- The P-value must be written in capital letters.
4- It is suggested to rewrite the conclusion.
5- Keywords must be modified according to MeSH.

- Introduction:
1- The manuscript needs grammatical and editorial corrections.
2- The organization of topics in the introduction is not good. It is necessary to modify the structure of the introduction.
3- Considering that job burnout occurs over a long period of time, how and with what reasoning did the researcher examine the effect of yoga and aerobics on job burnout?
4- Sufficient reasoning and justification for comparing the effects of the two methods, yoga and aerobic exercise, on job burnout have not been stated.
5- Existing knowledge and similar studies are not mentioned.

- Methods:
1- The study design should be clearly described in the methodology.
2- Explanations related to the double-blindness of the study need to be revised. Did the participants not know that they were in the study?
3- The sample size should be determined based on the effect size calculation.
4- Integral Yoga requires the mind and body to be in harmony. How did the researcher make sure this happened?
5- The method of selecting participants through invitation is not a suitable method for recruiting people to participate in the study. The researcher has not considered the previous experience of nurses in sports activities.
6- Has people's interest in participating in sports programs been considered?
7- How did the researcher make sure that the desired heart rate was maintained during the sports activities?
8- Are age and work experience taken into consideration as influencing factors in the results? How?
9- Is the nonstop exercise program implemented for everyone?
10- Statistical analysis should be explained more clearly. Explain the reason for using each statistical test.

11- What was the average burnout score for entering the study?
12- Job burnout among nurses differs across settings. How is this variable controlled in the study groups?
13- According to the purpose of the study, what was the reason for using the third (routine) group?
14- The CONSORT flowchart should be set according to the standard format.

Results:
1- The results are not presented properly.
2- What does Table 1 show?
3- Has the effect of these methods been investigated in different subgroups, such as different settings or different age groups? What have been the results?

Discussion:
1- The claim made at the beginning of the discussion is worthy of consideration.
2- How can it be claimed that harmony between mind, body, and spirit has been established in nurses during the study period?
3- The limitation arising from the overlap of the study program with the month of Ramadan can be prevented, so why is the study planned this way?

Thank you

Leila Mahasti Jouybari Reviewer

MINOR REVISION 24 Nov 2023

Effects of Integral Yoga and Aerobic Exercises on Burnout among Nurses: A Randomized Controlled
I have reviewed the abstract of the manuscript and find it to be well-written and informative. The study appears to be well-designed and conducted, and the findings are interesting and potentially important.

• I would suggest adding a few more details to the abstract, such as:

• A brief description of the yoga and aerobics interventions
• The specific measures used to assess burnout
• The main demographic characteristics of the participants

the introduction

• Elaborate on the specific aspects of yoga and aerobics that are thought to contribute to burnout reduction.
• Mention the potential limitations of previous studies on yoga and aerobics for burnout, emphasizing the need for the current comparative study.
METHODS
The 60 female nurses with bachelor's or master's degrees who worked in Motahari and Peymaniyeh hospitals and met the inclusion criteria participated in the study.
• As the readers of this international journal may not be familiar with these hospitals, it is necessary to provide additional information about whether these hospitals are governmental or affiliated with a university, and in which city and country they are located.
•
Was the cost of yoga classes and aerobic exercises covered by the researchers of this study?

Findings
• In the Results section, hospitals and their university affiliations have been mentioned, although this pertains to the methodology rather than the findings. In my view, the content initially presented in the Findings section pertains to the methodology, and a portion of the explanation from this section can be

limitations and their impact on the study results?

• Concerning the sustainability of the interventions used, it is necessary to provide precise details. Additionally, how impactful can an intervention that requires significant nurse participation and continuity be on a phenomenon as deeply rooted as occupational burnout, considering that organizational factors play a significant role in burnout?

2

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.

comment	reply	Line number
The purpose of the study is not consistent with the title of the study. The purpose of the study is to compare two methods on nurses' burnout, but the title of the effect of the two methods is written.	Was corrected	1
It is suggested to revise the study design.	Was corrected	
It is suggested to write the average burnout score or its changes in the study groups	Was corrected	13-16
Statistical analysis should be mentioned.	Did it	15
The main demographic characteristics of the participants should be written.	Did it	16
It is suggested to write the average burnout score or its changes in the study groups.	Did it	17-19
Preferably, the effect of interventions should be reported in terms of effect size and mean difference.	Did it	19
The P-value must be written in capital letters	Was corrected	17-18-19
It is suggested to rewrite the conclusion	Was corrected	
In the results section, the effect of yoga than aerobic sports should be stated more clearly.	Did it	21
Keywords must be modified according to MeSH	Was corrected	24
- The organization of topics in the introduction is not good. It is necessary to modify the structure of the introduction. - Considering that job burnout occurs over a long period of time, how and with what reasoning did the researcher examine the effect of yoga and aerobics on job burnout? - Sufficient reasoning and justification for comparing two methods of yoga and aerobic exercise on job burnout have not been stated. - Existing knowledge and similar studies are not mentioned. - Elaborate on the specific aspects of yoga and aerobics that are thought to contribute to burnout reduction. - Mention the potential limitations of previous studies on yoga and aerobics for burnout, emphasizing the need for the current comparative study.	The introduction was modified The argument of the respected referee's opinion was added Unnecessary parts were removed Similar studies were added reference was added	
Job burnout is a long-term process and nurses with two years of work experience participated in this study. The question is, does job burnout happen with two years of work experience?	According to the table 2, the average work experience is 10 to 13 years, and these two years are the minimum requirement for	74

	entering the study, which was selected according to other studies.	
How was the absence of these problems evaluated? Also, was the willingness to participate in the study considered?	Determine: self-report Yes it is explain	74 73
As the readers of this international journal may not be familiar with these hospitals, it is necessary to provide additional information about whether these hospitals are governmental or affiliated with a university, and in which city and country they are located.	explained	78
It is suggested that this section comes before the *study participants* at the beginning of the method.	Did it	51
Explanations related to the double-blindness of the study need to be revised. Did the sample not know that they were in the study?	The data collector and statistical analyst were unaware (blind) of the groups It explain in text	51
Are these parameters based on a previous study? The relevant reference should be mentioned.	Did it	67
Ethical considerations, including informed consent and code of ethics, etc., should be explained clearly	Did it	265
What was the average burnout score for entering the study?	Table 1 shows the levels of each area. In abstract and method and results added	279
Are age and work experience taken into consideration as influencing factors in the results? How?	According to random sampling and random allocation, we tried to reduce the effect of these variables.	55
In the study design methodology, it should be clearly written.	Did it and rewrite	49-80
The method of selecting samples through invitation is not a suitable method for people to participate in the study. The researcher has not considered the previous experience of nurses in sports activities	Inviting interested people is the starting stage of sampling in interventional studies. That is, people should be interested and free to participate in the study	
Was the cost of yoga classes and aerobic exercises covered by the researchers of this study?	Yes mentioned	116
Is the non-stop exercise program implemented for everyone?	Yes Mentioned Spatially in consort diagram	117
How did the researcher make sure that the desired heart rate was maintained during the sports activities?	mentioned	118

Job burnout of nurses is different in different settings. How is this variable controlled in the study groups?	It has already been stated that all nurses were examined and those with moderate to high levels of burnout were included in the study Too, has already been stated random sampling and random	83-85
Maslach Burnout Inventory pre-intervention is used to measure or determine job burnout at what age or with what work experience?	It has already been stated	70-80
Is the yoga intervention program based on a specific reference? Please provide a valid reference.	Mentioned	101-96
Please provide descriptive and analytical statistics tests clearly. Explain the reason for using each statistical test.	Mentioned	151
What does Table 1 show?	It is clear in the text	137
In the Results section, hospitals and their university affiliations have been mentioned, although this pertains to the methodology rather than the findings. In my view, the content initially presented in the Findings section pertains to the methodology, and a portion of the explanation from this section can be included in the flowchart without explicitly stating it in the text.	Did it	153
The strength of the study should be mentioned.	Did it	245
Write the title of the table more clearly, please.	Did it	278
Preferably, for more certainty, higher level tests were used, and the effect size and mean difference were also assessed.	Effect sizes were added to the tables The tests cannot be changed because the data is not normal by Shapiro test	297
References formatt	Did it	304
Please, the manuscript should be based on journal format.	Did it	
Integral Yoga requires the mind and body to be in harmony. How did the researcher make sure this happened?	Using expert trainers	
How was the reliability of the MBI in your study? Was it calculated?	It is a standard instrument whose validity and reliability have been calculated many times in Iran and other countries and did not need to be recalculated	
Weren't they just nurses?	OR nurses are a subgroup of nursing	
Explain the secondary outcome of this	It is clear in the text. A month	

study	later, MBI was measured again	
This study was done 4 years ago, and what is the reason for the delay in publishing?	The covid situation A lot of work for supervisors and students in the condition of covid	
Is it possible to prevent burnout by doing three months of exercise or yoga?	Yes, Previous sources and studies also confirmed this	
The consort flowchart should be set according to the standard format.	Its standard	
The limitation of interference of the study program with the month of Ramadan can be prevented, so why is the study planned this way?	Due to the time limit for the student's thesis,	
How can it be claimed that the harmony between mind, body, and spirit has been established in nurses during the study period?	As stated in the statement of necessity, it is not possible to manipulate all the variables, that's why more emphasis is placed on individual variables and the interaction of mind and body as basic solutions. You cannot change the organization but you can heal and strengthen the person	
Regarding the limitations, it has been discussed, but what solutions have the researchers proposed to mitigate these limitations and their impact on the study results?	Limitations are challenges that the researcher could not solve. And it is different with problems. The researcher can solve the problems, but he must mention the limitations honestly	
The conclusion can be improved. Application of this results can be suggested in various fields of nursing such as practice and management clearly. In addition, suggestions for future research can also be mentioned.	sugestion was mentioned	
Has the effect of these methods been investigated in different subgroups such as different settings or different age groups? What have been the results?	Considering that the purpose of studying these cases was not, it is better not to make such a statistical comparison because it will not be acceptable	

2 Revision 1

1 comment · 23 Dec 2023

Associate Editor

MAJOR REVISION 23 Dec 2023

Thank you.

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.

comment	answer	line
English editing is necessary.	All text editing	
Please write what time point do you consider instead of T0? For example, write "**before the intervention (T0)**".	Did	18-19-20
.Please write in capital		20
The conclusion still needs improvement. Please write a summary of implications and suggestions.	completed	25
Do you mean "Emotional Exhaustion dimension"? Grammatical editing is .necessary	Did	25
Existing knowledge and similar studies should be .mentioned	added	49-57
Sufficient reasoning and - justification for comparing two methods of yoga and aerobic exercise on job burnout should be .mentioned	added	60-67
Blinding can be of three types: single blind (sample is blind), double blind (sample and investigator are blind), and triple blind (sample, investigator, and data analyst are blind). Therefore, this type of blinding in your study cannot be double-blind because the sample is not .blind . It is suggested to remove the "double-blind" in the study design, but it should be mentioned in the explanation that the evaluator and statistical analyst were blind	It corrected	60
As mentioned in the initial comments, it is suggested	The text has been moved	63

that these explanations be presented in the results section.		
it is suggested that these explanations be presented in .the results section	The text has been moved	65
Elaborate on the specific aspects of yoga and aerobics that are thought to contribute to burnout reduction	explored	63-70
it is suggested that these explanations be presented in .the results section	The text has been moved	68
Mention the potential limitations of previous studies on yoga and aerobics for burnout, emphasizing the need for the current comparative study	added	70-71
?Mean+SD	replaced	76
What was the parameter whose mean and standard ?deviation were presented	mentioned	77
Please explain clearly how the concealment of random allocation was ?done ?Random **Allocation** or sampling Please explain the sampling .method more clearly		82
Please, the font should be according to the journal .format	Did in all the text	86-
In order to reduce the number of tables, the information of table one can .be presented in the text	Considering that the content is a bit complicated and may be confusing for the reader, a table is better. But again, if the referee's opinion is to be changed, we will change it	110
How was the reliability of the MBI in your study? The meaning of reliability in your study is; did you	Calculated and reported	112

calculate the Cronbach's alpha of the questionnaire in your own study? Because even if the validity and reliability of the questionnaire has been conducted in a study in Iran, it is suggested that the Cronbach's alpha of the questionnaire be calculated in your own study as well.		
Please, the font should be according to the journal format.	The text has been moved	131
This section should come before the "Data Analysis" section.	It replaced	120
Explain the reason or purpose for using each statistical test.	explain	153
Integral Yoga requires the mind and body to be in harmony. How did the researcher make sure this happened? Please provide brief explanations about this issue in the text.	explain	128
The average score of which **variable**? Please provide the desired variable.	describe	180
Please Write in capital.	Did it	182
It is suggested to present the results of the Friedman test briefly in the yoga group (in one or two lines).	report	186
If it is another limitation, put it separately on another line. Why did you write in parentheses?	Its explain of previous line	213
The conclusion should be improved. Implication of this results can be suggested in various fields of nursing such as practice and management	completd	250

clearly. In addition, suggestions for future research can also be mentioned.		
The consort flowchart should be set according to the standard format.	It changed	302
Please revise the references of numbers 7, 9, 18, 23, and 24 according to the journal format.	7 changed 9 completed 18-23-24 have not problem	305

3 Revision 2

1 comment · 6 Jan 2024

Editor-in-Chief

MINOR REVISION 6 Jan 2024

Dear Author,
Thank you.

4

Revision 3

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.

comment	answer	line
English editing is suggested.	did	
It is better not to have a directional goal. Please remove the word "reduce “, And the goal should be written as follows. This study aimed to compare the effects of Yoga and Aerobic exercises on burnout among nurses	did	6-74
please provide reference for this sentence.	did	64-67-59-38
Provide explanations about the setting of study.	added	80
please write about sampling more clear.	added	88-98
In addition, no explanation was provided regarding the concealment of random allocation. please write .about it	added	99
It is suggested that the explanation about sampling comes after the explanation about inclusion and exclusion criteria or before the ..sample size	moved	89-99
It seems that the statistics provided are not based on this reference. Please check that the reference is correct and related to the study from which these results were obtained.	11	
According to what valid reference and protocol was yoga performed?	Added Reference was given 11	126
The purpose of the statistical tests was not explained?	It has already been explained	161-163
The items written in parentheses seem to be exclusion criteria. Please write the	explain	177 moved to

.sentence more clearly		
It is suggested that this sentence comes at the .beginning of line 179	did	177
If you have a reference for this sentence, please .provide it	added	206
.Please cite the studies	added	212
No reference is needed if it is your own .interpretation	omitted	216
No reference is needed if it is your own .interpretation	omitted	222
This sentence here does not fit with the preceding and following contents. Please check it, if it is not suitable, delete it	omitted	240
?page numbers	added	341
Please write the reference according to .the journal format	added	345-394
Please revise the discussion and give more coherence to .the discussion	revised	200
According to the results, it seems that aerobics did not have a significant effect on these dimensions especially personal accomplishment, please check. If so, please remove aerobics from .this sentence	did	205
Why are these sentences presented here? It is suggested to be presented in line 202. Usually, the results of the studies are presented first and then interpreted. You presented the results of other studies after interpreting the cause of the differences, which is not appropriate. Also, Patil's study is not very relevant, you can delete	did	2018

Patil's study. Please consider coherence in the discussion.		

All changes highlighted

4 Revision 3

0 comments

No public comments in this round.

5

Revision 4

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.

reviwer	action	line
please write it according to the journal format.	Completed	348
All Track Change accept		all text
It seems that statistics provided are not based on this reference. Please check that the reference is correct and related to the study from which these results were obtained.	correct	112
It is not necessary to write it like this inside the parentheses. Only cite to the reference according to the .Vancouver style	omit	132
Reference in sample size	completed	110

5 Revision 4

0 comments

No public comments in this round.