PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	The effect of stress management based on cognitive behavioral therapy on nurses as a universal prevention in the workplace: a systematic review and meta-analysis protocol
AUTHORS	Kuribayashi, Kazuto; Takano, Ayumi; Inagaki, Akiko; Imamura, Kotaro; Kawakami, Norito

VERSION 1 – REVIEW

REVIEWER	Serafin, Lena Medical University of Warsaw, Department of Clinical Nursing
REVIEW RETURNED	14-Apr-2022

GENERAL COMMENTS	Thank you for the opportunity to review this interesting protocol and congratulations to the authors for planning to investigate such an important issue. In my opinion minor revision should be considered in the manuscript, as follow: Page 5, line 5: Why did you not mention i.e. insomnia and somatic disorders here? Page 7, line 6: In my opinion it is worth to explain inclusion/exclusion criteria regard to nurses age\seniority. Some studies are conducted among newly graduated nurses. Will you include this analysis? Is the for example one month period of practice enough to consider analyzing issue? Page 7, line 23: It could be relevant do add the issue of "leave a current place", "care quality" and "patient safety" here as occupational outcomes which can be the adverse effects of mental health problems. Page 7, line 30: Do you consider to reviewing the grey literature? Page 8, line 17: What is planned when authors will not be reached? What will be happened with their papers? Page 8, line 22: Could you add the supplementary file with this form? Page 9, line 3: It would be interesting for reader to include here supplementary file with chosen tool. Page 10, line 24: It is worth to presrent here also economical aspect of nurses' mental health supporting. Page 10, line 29: You can also indicate that limitation is searching

	papers published only in two languages, which excluded potentially important data published in other languages. Many of references are old. Please remove the old references and change them to more recent ones. Based on routine, 85% of all cited works should be less than five years old.

REVIEWER	Lim, Yin Cheng University of Malaya, SPM Department, Faculty of Medicine
REVIEW RETURNED	16-Apr-2022

GENERAL COMMENTS	It is a well written protocol with the aim of this study is to examine the effectiveness that is reported in published randomized controlled trial (RCT) studies. However, there are few items below need to be addressed: 1.Page 3, Line 3: The definition of "Universal prevention" is unclear. 2. Page 5, Line 25: "U.S" to be spelled out. 3. Page 5, Line 36: " …it has been shown to have positive effects as a primary prevention" . Intervention for public is divided into primary, secondary and tertiary prevention. More information would be needed to explain why CBT is classified as primary prevention. 4. Page 5, Line 55: "Indicated prevention which targets individuals who are screened for already having early signs or symptoms of mental illness"- From the sentence above, indicated preventions points towards secondary prevention, as it was given as a form of treatment after screening. 5. The use of "universal prevention" and "primary prevention are unclear to me. 6. Page 7, Line 7 : " Studies will be excluded if they correspond to selective or indicated prevention among primary prevention" – this statement is unclear. 7. Page 7, Line 49: "published as original articles written in English or Japanese" – What is the rational to include articles written in Japanese, and how the authors ensure quality control in terms of translation"

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1
Reviewer Name: Dr. Lena Serafin
Institution: Medical University of Warsaw.
Competing interests of Reviewer: no
Comments to the Author:
Dear Authors,
Thank you for the opportunity to review this interesting protocol and congratulations to the authors for planning to investigate such an important issue. In my opinion minor revision should be considered in the manuscript, as follow:

1. Page 5, line 5: Why did you not mention i.e. insomnia and somatic disorders here?
Response:

Thank you for your useful comment. We have added the terms in the Introduction (line 6 to 7 on page 5) as follows;
"These mental health problems can lead to the worsening of the nurses' somatic symptoms or disorder,[4] insomnia,[5] the degradation of their quality of life,[6] and their work engagement,[7,8] and it can have adverse effects in the workplace (e.g., an increase in absenteeism [9] and the intention to leave employment[10]) and lead to a deterioration in the quality of care that the nurses provide.[2]"

2. Page 7, line 6: In my opinion it is worth to explain inclusion/exclusion criteria regard to nurses age/seniority. Some studies are conducted among newly graduated nurses. Will you include this analysis? Is the for example one month period of practice enough to consider analyzing issue?
Response:
We appreciate your valuable comment. All participants in this study are nurses, including new graduate nurses. As described in the paper's Data synthesis and statistical methods section (line 4 to 6 on page 10), we will also perform a subgroup analysis targeting only new graduate nurses. In this study, new graduate nurses are defined as having less than a year of experience as a nurse. If this definition is met, even if they have one month of experience as a nurse, the articles will be included in this study. We have added the terms in the Eligibility criteria (line 1 to 2 on page 7) as follows;
"We will include intervention studies (RCTs) conducted on the entire nurse population, including new graduate nurses (i.e., those with less than one year of nursing experience)."

3. Page 7, line 23: It could be relevant do add the issue of "leave a current place", "care quality" and "patient safety" here as occupational outcomes which can be the adverse effects of mental health problems.
Response:
Thank you for your valuable advice. We have revised and added the terms to the Eligibility criteria (line 23 to 25 on page 7) as follows;
"These will include absenteeism, intention to leave current employment, degradation of care quality, work performance, or work engagement."
In addition, we have revised and added the terms to the Data extraction (line 30 on page 8 to line 4 on page 9) as follows;
"The extracted data will include the following: the year of publication, country where the study was conducted, number of participants included in the analysis, sampling framework, participants' demographic characteristics (i.e., mean age, sex proportions, years of nursing experience, and employment status), number of participants who were excluded or lost to follow-up, the contents of the intervention program, control condition (i.e., no intervention, waiting-list control, or other), outcome variables (i.e., stress-related outcomes such as burnout, anxiety, and depressive symptoms, or occupational outcomes such as absenteeism, intention to leave current employment, quality of care, work performance, or work engagement), length of follow-up, and sufficient data (i.e., the number of participants in each group (N), mean differences (MD) between groups, and SD for outcomes) for calculating the effect size with 95% CIs for determining the effect of CBT on the mental health of nurses for universal prevention."

4. Page 7, line 30: Do you consider to reviewing the grey literature?
Response:
We appreciate your valuable comment. As you pointed out, we agree that reviewing the grey literature is a key step to obtain information regarding studies that may have been completed but not yet published to reduce publication bias. We have added the sentences to clarify this point in the Information sources, search strategy, and data management section (line 3 to 5 on page 8) as follows;
"Through systematic searches, we will also obtain information regarding studies that may have been completed but are not yet published. This search is essential to reduce publication bias in this systematic review."

In addition, we added the sentences in the Study selection process section (line 21 to 22 on page 8) as follows;

"We will directly contact the corresponding authors of the eligible studies if (1) the results of the publication are unclear or may be related to multiple interpretations, (2) the reported results did not show data relevant to our study analysis, or (3) the study has been registered for clinical trials but are not yet published."

5. Page 8, line 17: What is planned when authors will not be reached? What will be happened with their papers?
Response:
We apologize for this insufficient description. We added the sentences to the Study selection process (line 22 to 24 on page 8) as follows;
"If we contact those corresponding authors but do not receive a reply, we will not include their articles in the analysis. We will describe the process in the paper, including contact with the corresponding authors."

6. Page 8, line 22: Could you add the supplementary file with this form?
Response:
We added an online supplementary file as Supplementary File 3 (line 28 on page 8)

7. Page 9, line 3: It would be interesting for reader to include here supplementary file with chosen tool.
Response:
Thank you for your comment. In the paper, we provide a reference to the chosen tool (i.e. the Cochrane Collaboration's risk-of-bias tool) (line 10 on page 9) so that readers can learn about it.

8. Page 10, line 24: It is worth to present here also economical aspect of nurses' mental health supporting.
Response:
Thank you for your useful comment. We added the sentence in the STRENGTHS AND LIMITATIONS section (line 31 to 32 on page 10) as follows;
"In addition, it will provide economic and productivity boosts in the workplace."

9. Page 10, line 29: You can also indicate that limitation is searching papers published only in two languages, which excluded potentially important data published in other languages.
Response:
Thank you for your valuable advice. We have added a sentence to the STRENGTHS AND LIMITATIONS section (line 36 on page 10 and line 1 to 2 on page 11) as follows;
"In addition, there is a limitation that the article search will be conducted only in two languages, which can exclude potentially important data published in other languages."

10. Many of references are old. Please remove the old references and change them to more recent ones.
Response:
Thank you for your useful comment. We have, wherever possible, changed to the most recent references. Reference numbers 2, 5, 6, 8, 9, 10, and 21 are the most recent references we have changed or added.

Reviewer: 2
Reviewer Name: Yin Cheng Lim
Institution: University of Malaya.
Competing interests of Reviewer: There is no competing interest to declare.

Comments to the Author:
It is a well written protocol with the aim of this study is to examine the effectiveness that is reported in published randomized controlled trial (RCT) studies. However, there are few items below need to be addressed:

1. Page 3, Line 3: The definition of "Universal prevention" is unclear.
Response:
Thank you for your useful comment. As you pointed out, there was insufficient description regarding universal prevention. Now, we revised the sentence in the Abstract (line 4 to 6 on page 3) as follows;
"Hence, stress management strategies are critical as a universal prevention measure that address an entire population and are not directed at a specific risk group to maintain nurses' mental health in the workplace."

2. Page 5, Line 25: "U.S" to be spelled out.
Response:
Now, we revised the term in the Introduction (line 14 on page 5) as follows;
"According to two surveys in the United States, the prevalence of depression in nurses varies from 18% to 35%, which is higher than in the general population.[4,13]"

3. Page 5, Line 36: "…it has been shown to have positive effects as a primary prevention". Intervention for public is divided into primary, secondary and tertiary prevention. More information would be needed to explain why CBT is classified as primary prevention.
Response:
As you pointed out, we agree that intervention for the public is divided into primary, secondary, and tertiary prevention. Primary prevention aims to prevent diseases before it occurs. Secondary prevention aims to reduce the effects of illness and includes the detecting (diagnosis) and treating disease. Finally, tertiary prevention aims to mitigate the impact of an ongoing illness with lasting results. This goal is accomplished by helping people manage in the long term and improving their ability to function and their quality of life as much as possible.
Previous meta-analyses have confirmed the effectiveness of CBT not only as a treatment for various mental disorders (e.g., depression) (secondary prevention) but also as a stress management intervention in the workplace, improving employees' depressive or anxiety symptoms and reducing occupational stress (Primary prevention).
Thus, we added an explanation of Primary prevention to the Introduction (line 15 to 18 on page 5) as follows:
"Maintaining and improving nurses' mental health as a primary prevention (to prevent diseases before it occurs) is necessary not only for their well-being but also for improving their productivity, reducing workplace costs, and guaranteeing the quality of care for the patients.[14]"

4. Page 5, Line 55: "Indicated prevention which targets individuals who are screened for already having early signs or symptoms of mental illness"- From the sentence above, indicated preventions points towards secondary prevention, as it was given as a form of treatment after screening.
Response:
We apologize for this insufficient description. As explained in the Introduction to the paper (line 29 to 34 on page 5), primary prevention includes universal, selective, and indicated prevention. Disease detection (diagnosis) and treatment are secondary prevention strategies. We have revised the description of indicated prevention (line 32 to 34 on page 5) as follows;
"3) indicated prevention which targets individuals who are screened for already having early signs or subthreshold symptoms of mental illness.[18–21]"

5. The use of "universal prevention" and "primary prevention are unclear to me.

Response:

As mentioned above, primary prevention aims to prevent disease before it occurs. Primary prevention includes universal, selective, and indicated prevention. Universal prevention targets an entire population (for example, all nurses in the workplace) and is not directed at a specific risk group.

6. Page 7, Line 7: "Studies will be excluded if they correspond to selective or indicated prevention among primary prevention" – this statement is unclear.
Response:
Thank you for your valuable comment. This systematic review and meta-analysis will focus on universal prevention among the primary prevention. Therefore, studies of selective and indicated prevention will be excluded in this study. We have added the sentence to the Eligibility criteria (line 2 to 5on page 7) as follows;
"Studies will be excluded if they correspond to selective or indicated prevention among primary prevention. This systematic review and meta-analysis focus on universal prevention as a primary strategy. Therefore, studies of selective or indicated prevention will be excluded from this review."

7. Page 7, Line 49: "published as original articles written in English or Japanese" – What is the rational to include articles written in Japanese, and how the authors ensure quality control in terms of translation"
Response:
Thank you for your comment. The authors are Japanese and articles written in English and in Japanese will be reviewed.

FORMATTING AMENDMENTS (if any)
Editor's Comments to Author:
● Please revise the abstract >> methods section to clarify what quality assessment tool(s) will be used.
Response:
We have added the sentence to the abstract (line 19 to 20 on page 3) as follows;
"The methodological quality of the included studies will be assessed using the Cochrane Collaboration's risk-of-bias tool."

● Please update the details for this study in PROSPERO. For example, it states that the expected completion date is 31 December 2020. See:
https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=152837
Response:
Thank you for pointing out. We have updated the details of this study on PROSPERO. Please see:
https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=152837&VersionID=1715952
We have updated the start and end times of the review.

● What are the dates of coverage for each database searched? Please provide the months as well as years.
Response:
This protocol paper has not been searched in each database yet. During the writing of the systematic review and meta-analysis, the search dates in each database will be reported. Thank you very much.

VERSION 2 – REVIEW

REVIEWER	Serafin, Lena Medical University of Warsaw, Department of Clinical Nursing
REVIEW RETURNED	29-Jun-2022

GENERAL COMMENTS	Dear Authors, Thank you for your efforts to revise the manuscript. In my opinion, the manuscript is ready for publication now.

REVIEWER	Lim, Yin Cheng University of Malaya, SPM Department, Faculty of Medicine
REVIEW RETURNED	24-Jun-2022

GENERAL COMMENTS	The author has addressed most of my comments.