

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Effectiveness of interventions to improve health behaviours of health professionals: a systematic review.
AUTHORS	Hobby, Julie; Crowley, Jennifer; Barnes, Katelyn; Mitchell, Lana; Parkinson, Joy; Ball, Lauren

VERSION 1 – REVIEW

REVIEWER	Webb, Thomas Sheffield University, Department of Psychology
REVIEW RETURNED	20-Nov-2021

GENERAL COMMENTS	<p>Sadly this review is very limited.</p> <p>It is not clear why a review of interventions to improve health behaviours in health professionals is warranted. The introduction suggests that health professionals may be more likely to have chronic health problems and experience stress, but unless these factors qualitatively influence the nature or effect of interventions, then they do not warrant the design of different interventions to those used in other samples. Reviews typically consider whether the nature of the sample moderates the effectiveness of interventions (indeed, perhaps existing reviews already consider this sample?)</p> <p>As a result of the specific sample, just 9 studies meet the inclusion criteria. As a result, it is not possible to do many of the things that help to build understanding by accounting for the anticipated and observed heterogeneity in the impact of interventions (e.g., identify specific intervention components / targets / modes of delivery associated with effectiveness).</p> <p>Finally, the authors do not use meta-analysis to compute the sample-weighted average effect of the interventions. Instead, they simply count the number of interventions that find significant effects relative to a control condition. This procedure is outdated and limits the conclusions.</p>
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REVIEWER	Cioffi, Andrea Sapienza University of Rome
REVIEW RETURNED	08-Mar-2022

GENERAL COMMENTS	None
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REVIEWER	Zgliczyński, Wojciech
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	Centre of Postgraduate Medical Education, School of Public Health
REVIEW RETURNED	15-Apr-2022

GENERAL COMMENTS	<p>Thank you very much for the opportunity to read an article on an extremely important issue, which is interventions to modify the health behaviour of medical staff. Congratulations to the authors for preparing an interesting systematic review of articles.</p> <p>The article addresses an issue that unfortunately is still not sufficiently understood and addressed.</p> <p>It may be worth considering including more articles in the analysis in the future (e.g. articles published before 2010). It is also worth considering providing more detailed recommendations on how interventions should be designed to improve the health behaviour of health professionals. This is an important challenge as the COVID-19 pandemic has had a particularly negative impact on the health of medical staff.</p>
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VERSION 1 – AUTHOR RESPONSE

Reviewer 1	
1. It is not clear why a review of interventions to improve health behaviours in health professionals is warranted...Reviews typically consider whether the nature of the sample moderates the effectiveness of interventions:	This review is justified given the considerable cost related to poor health of health professionals and the key modifiable health behaviours that impact health problems experienced by health professionals. Additionally, health professionals' personal health directly impacts their ability to provide safe and effective health services to their patients. As explained in the introduction, understanding the most effective approaches to support lasting behaviour change is key to improving health professional's health. We also recognise Reviewer 3's comment that this review is worthwhile and important to conduct to inform future work, particularly given the additional challenge of the COVID-19 pandemic on the health workforce.
2. The authors do not use meta-analysis to compute the sample-weighted average effect of the interventions. Instead, they simply count the number of interventions that find significant effects relative to a control condition. This procedure is outdated and limits the conclusions.	We have responded to this point above. Specifically, a meta-analysis is only feasible when sufficient studies have utilised identical outcome measures so that a pooling of data is possible. In this review, the primary outcomes assessed were diverse, for example occupational stress, physical activity, smoking, and weight. Although it would have been possible to come studies for outcomes that were similar (such as two studies that examined physical activity), this would not have adhered to best practice guidance for meta-analyses and the authors therefore took a descriptive synthesis approach to analysis. This approach has been used in several other studies examining health behaviours, including BMJ Open papers such as DOI: 10.1136/bmjopen-2017-016242, and DOI 10.1136/bmjopen-2022-001911 .
Reviewer 3	
1. Thank you very much for the opportunity to read an	Thank you very much for this supportive feedback.

<p>article on an extremely important issue, which is interventions to modify the health behaviour of medical staff. Congratulations to the authors for preparing an interesting systematic review of articles.</p>	
<p>2. It may be worth considering including more articles in the analysis in the future. It is also worth considering providing more detailed recommendations on how interventions should be designed to improve the health behaviour of health professionals. This is an important challenge as the COVID-19 pandemic has had a particularly negative impact on the health of medical staff.</p>	<p>We agree that more articles would have enhanced our ability to further synthesise the findings. However, feel the overall quality is improved by limiting included studies to the highest quality study designs (Randomised Controlled Trials). We are confident that we took a comprehensive and systematic approach to identifying all potential included studies. We were also inclusive with our definition of health behaviour, and in testing the search criteria did not identify major increases in hits when expanding the date range. We have identified factors we recommend for future research, including using technology for increased intensity in a cost-effective manner, multi-modal interventions that support different aspects of behaviour change (such as goal setting, self-monitoring), and follow up for at least 12months to ensure sustained gains. We have amended the Discussion section to clarify these recommendations, and the amended sentences read as follows:</p> <p>“Future interventions should optimise the intensity of contact with participants to enhance intervention outcomes, such as through the use of technology.”</p> <p>“Future interventions should combine activities that promote action and performance of behaviours to increase the likelihood of change.”</p> <p>“Future interventions should follow-up at 12 months and 24 months post program to further increase understanding of program effectiveness.^{33,34}”</p>