Author’s response to reviews

Title: A systematic review protocol examining workplace interventions that aim to improve employee health and wellbeing in male-dominated industries

Authors:
Paige Hulls (paige.hulls@bristol.ac.uk)
Rebecca Richmond (Rebecca.Richmond@bristol.ac.uk)
Richard Martin (Richard.Martin@bristol.ac.uk)
Frank de Vocht (frank.devocht@bristol.ac.uk)

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Author’s response to reviews:

Ms Paige M Hulls
Bristol Medical School, University of Bristol
Oakfield House, Oakfield Grove,
Bristol, BS8 2BN

Ursula Griebler, PhD, MPH
Systematic Reviews
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Dear Dr Griebler,

Ref: A systematic review protocol examining workplace interventions that aim to improve employee health and wellbeing in male-dominated industries

Please find attached our detailed responses to each of the items and reviewers’ comments, along with page numbers and sections/line numbers as they appear in the clean version. A clean version has been submitted with all changes accepted and the manuscript text with revisions tracked in the supplemental file upload. The revised version meets all the listed editorial requirements.

COMMENTS: REVIEWER 1
General comments
The introduction doesn’t currently set up your objectives – are you looking at the industries you’ve highlighted because they are male-dominant or because those industries have a high prevalence of poor health? This point is really critical and the following 3 points arise from this uncertainty.

How much is the higher incidence of poor health in male dominated industries due to the nature of the industry rather than the fact that it is sex-dominant? All of those industries you list have health risks that are inherent in the nature of the industry.
Why are you looking at male-dominated industries rather than sex-dominated industries?

I would recommend differentiating between the health effects on the opposite sex of working in a sex-dominated workplace vs a sex-dominated industry. My feeling is you could be missing out on valuable data from organisations/workplaces that are sex-dominant but aren’t necessarily within a sex-dominated industry. Equally, you could get a study from a male-dominated industry in which the workplace isn’t male-dominated.

The industries that will be included in the literature review have been selected as they are part of previously published definitions of ‘male-dominated industries’ (line 83). The literature review aims to select interventions that aim to address employee health and wellbeing in general, rather than health risks that are caused due to the nature of the job and/or industry. Although we appreciate that the search strategy will highlight interventions that aim to prevent specific health risks (e.g., musculoskeletal disorders, asbestosis), we hope that it will also bring forward interventions that focus on sleep hygiene, workplace stress, suicide prevention, physical activity and healthy eating (see line 77).

The literature review was chosen to include male-dominated industries, rather than sex-dominated, as we are looking to develop a workplace intervention that improves cardiovascular health and occupational stress in professionals working in male-dominated industries. Furthermore, previous evidence has suggested that lifestyle interventions have often failed to engage men in behaviour changes. As a result, intervention engagement by males has been lower and study samples are often dominated by females. This has been attributed to failing to recognise the importance of gender in the design and delivery of initiatives and strategies. Therefore, we would like this systematic review to identify interventions that have been effective in male-dominated industries.

How will you ensure you capture all relevant industries/workplaces?

We have reviewed several definitions of male-dominated industries and made sure that the search strategy (appendix 1 – sample search strategy) contains all industries that have been included in previous definitions. Definitions of male-dominated industries can be found at line 83.

What is the long term impact of the work? Is your aim to be able to recommend an intervention/interventions that improve health in male-dominated industries? Would you expect you see that different strategies/interventions are employed in male-dominated industries compared to other industries?

The purpose of the literature review is to help develop a workplace intervention that will be trialled in the UK construction industry that aims to improve occupational stress and cardiovascular health. Therefore, it is hoped that the review will provide information and resources about what has been previously trialled as well as what has been successful and unsuccessful. This can then be used to influence the development of our intervention, in conjunction with employee interviews.

Further information has been included in the manuscript.

Line 273: “This systematic review aims to identify successful strategies, components and/or interventions to help inform decision-making for future planning and implementation. It is expected that the systematic review will also inform the design and content of a workplace intervention that will be piloted in the UK construction industry. Findings from this systematic review will also be disseminated for peer-reviewed open access publications as well as at the relevant conferences.”
Specific comments

Line 23-25: Consider altering the phrasing- it’s not about the workforce providing straight forward access to lots of people, rather than lots of people are employed/have a workplace and that it is an employee responsibility to provide appropriate conditions for its workers.

We have altered the wording of this sentence.

Line 23: “The workplace environment potentially provides access to a large population who are employed, and it is an employer’s responsibility to provide appropriate conditions for its employees.”

Some grammatical changes need to occur – I won’t mention them all but examples include 1) commonest to most common, line 56; 2) causes rather than cause, line 58; 3) remove ‘who’, line 73.

Thank you for your comment, we have made several grammatical changes, including those suggested above.

COMMENTS: REVIEWER 2

General comments
The paper needs to be more tightly written. It currently contains some typos, and in general the writing style needs strengthening (a mentor might be useful in this regard). Please (re)write in the past tense when referring to published work.

We have gone through the manuscript and rewritten published work in the past tense.

Line 62: “Organisations reported taking action to address employee mental health in the workplace.”

Line 63: “Common measures included: phased return to work, employee assistance programme”

Line 66: “Organisation defined a healthy workplace as”

Line 69: “considered to be in a suitable position to help support and promote employee health”

Line 73: “have been positively associated with cardiovascular disease (CVD) and its risk factors.”

Line 75: “hours or more per week were reported to be at 30% increased risk of stroke versus those working standard hours.”

Line 79: “Smoking and alcohol has been used to self-medicate stress-induced physiological effects and job stress could increase smoking and drinking intensity.”

Line 86: “Working in a gender dominated industry has been shown to impact an employee’s health and wellbeing”

Line 88: “Both males and females tended to have higher absence rates in workplaces numerically dominated by the opposite sex.”
Line 107: “However, those published have not been necessarily based on workplace interventions or in male-dominated industries.”

The argument presented for undertaking the review needs to be sharpened. Whilst the background describes negative consequences associated with working in an MDI; it does not make a persuasive case for the need for a better understanding of what interventions are effective. Moreover, some key work that has undertaken a systematic review of mental health interventions in male-dominated industries is not cited. Pls refer to Lee, Roche, Duraisingham et al. 2014. Effective interventions for mental health in male-dominated workplaces. Mental Health Review, 19; 237-250. This is not the Lee et al 2014 currently cited.

Further information has included for the need to understand what interventions are effective.

Line 90: “Although there is limited evidence, several interventions addressing employee health and wellbeing that have been trialled in male-dominated industries have indicated success. In white- and blue-collar workers in the construction industry with an elevated risk of CVD, there was a statistically significant beneficial effect on snack intake, fruit intake and smoking at six months in the intervention group(33). Behaviour change is not only determined by personal factors, but also through the environment(34). Authors concluded that the intervention could promote behaviour change among a population where risks of CVD and unhealthy lifestyles is likely to increase in the years. Focussing on mental health, a previous systematic review concluded that working conditions (including job strain and work-life balance) can have a significant impact on an employee’s mental health as well as their job performance(35). Providing training for senior and middle management, only in improving access, but also in managing workload issues was crucial for intervention success. Moreover, there is very little evidence that considers the attitudes and thoughts of employees and employers regarding health and wellbeing in male-dominated industries. Therefore, it would be beneficial to researchers, policy makers and companies within male-dominated industries to have a body of literature reviewing the effectiveness of industry-specific interventions.”

The reference suggested has been cited and works included.

Line 97: “Focusing on mental health, a previous systematic review concluded that working conditions (including job strain and work-life balance) can have a significant impact on an employee’s mental health as well as their job performances”.

Specific comments

Greater clarity and precision is required in terms of objectives, terminology and outcomes to be measured.

The research question needs to be clearly stated in greater detail.

Thank you for the comment, we have added an additional statement.

Line 111: “The purpose of this project is to conduct a systematic review of the effectiveness of workplace interventions that aim to improve employee health and wellbeing in male-dominated industries, as described in this protocol paper.”
Objectives: The flow of the objectives could be clearer – this would aid the authors in synthesising and subsequently analysing the data. At present they seem disjointed, with the primary aim – the effectiveness of workplace interventions – lost in the mix.

Thank you for your comment, we have revised the wording.

Line 123: “The primary objectives of this review are to firstly, systematically describe workplace intervention male-dominated industries that have been evaluated in controlled studies; secondly, assess their effectiveness improving employee health and wellbeing; and thirdly, describe the acceptability of these interventions to employees and employers.

The secondary objectives of this review are to firstly, systematically describe the use of interventions across a range of working environments in these industries; secondly, highlight similarities within the interventions; and thirdly, identify other male-dominated industries where the interventions could be successfully replicated.”

Inclusion criteria: A clearer definition of ‘health and wellbeing’ is required, along with a clear definition of what the authors mean by ‘health behaviour’. Whilst the authors recognise that the term ‘health and wellbeing’ is opaque, for the purpose of this review a precise definition is required to address inclusion and exclusion criteria.

We have included a clearer definition of health and wellbeing.

Line 145: “Interventions must include the three key dimensions of employee health; psychological, physical and social wellbeing as defined by Grant, et al., (2007)(47). The first dimension is related to happiness and subjective positive experiences during work. The second dimension is related to physical wellbeing and health. The third dimension is related to the quality of relationships at work (both peer relations and hierarchical relationships).”

We have also added a definition of health behaviour.

Line 140: “Health behaviours are defined as “overt behavioural patterns, actions and habits that related to health maintenance, to health restoration and to health improvement.”

Types of outcome measures to be included are a little unclear. This lack of clarity may relate to how the objectives have been articulated in the first instance.

We have altered the order of the objective and self-reported outcomes to better reflect the order of the primary and secondary outcomes listed. We have included any outcomes of interventions in a male-dominated industry aimed at improving employee health and wellbeing in the workplace. It is to the best of our knowledge that there is not a published systematic review and as a result we have included a wider range of outcomes to ensure that the search strategy selects the appropriate articles as employee health and wellbeing is a broad term.

Search strategy – What is outlined is appropriate, but a rationale also needs to be provided for not including the grey literature.

To address the above comment, the following statement has been added.
Line 197: “This review will be of published peer review studies only and grey literature (including conferences, abstracts and dissertations) will not be considered in this systematic review. Whilst it has been suggested that grey literature should be considered in systematic reviews and meta-analyses, this review will only include peer-reviewed articles to collate the strongest evidence of effective interventions.”

Analysis – as a narrative analysis is likely, further detail is required of how this will be undertaken. Clarity in objectives would help with this.

As written in line 241, an Albatross plot will be created to try and summarise the diverse literature that the search could produce. We will also conduct a risk of bias assessment (line 245-251).

We have included a further statement regarding narrative analysis.

Line 229: “Study characteristics will be summarised in tabular form (study design, method, analysis, strengths and weaknesses) to allow authors to discuss the implemented approaches and comparable attributes.”

Best Wishes

Paige M Hulls