

Working well

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Review article

Working well: Mitigating the impact of menopause in the workplace - A narrative evidence review

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ABSTRACT

Introduction: In recent years there has been a much greater recognition by some employers of the need to support female employees experiencing the menopause. However, despite an increased awareness of the need to reduce the impact of menopause on the workforce, employers rarely have the opportunity to implement evidence-based interventions.

Objectives: This evidence review aims to provide an insight into the effectiveness of workplace programmes supporting women experiencing menopause symptoms, and to identify knowledge gaps as drivers for future research.

Methods: A search for papers published in English between 2012 and 2023 was carried out on the PsycINFO, Medline, and Embase databases. Abstract review was used to screen initial returns before a subsequent full-text review determined the final studies included.

Results: Twelve studies were selected for in-depth review: four conducted in the UK, seven in continental Europe and one in South America. The findings of the papers fell into five categories: work ability, improved symptom management, mental wellbeing and empowerment, increased openness about menopause in the workplace, and the impact of management/leadership. None of the included interventions were reported to give a significant improvement in measures of work ability. However, there were improvements in women's wellbeing, and their ability to manage symptoms. Interventions to improve workplace openness and managers' skills were well received by participants.

Conclusions: The evidence for effective workplace interventions for women experiencing menopause symptoms is currently lacking. There is considerable need for further high-quality evaluations of interventions designed to support women in the workplace.

1. Introduction

Menopause is a natural biological process that marks the end of a woman's reproductive life, typically occurring between the ages of 45 and 55 [1]. This transition begins with perimenopause, on average four to eight years before the point of menopause. During this time, hormonal changes can cause a range of symptoms, including hot flashes, night sweats, mood swings, fatigue, and difficulty sleeping [2]. Menopause marks twelve-months post a woman's final period, at which point she is post-menopause [3], but many women still experience symptoms for several years. This entire journey can also be described the climacteric phase [4].

In 2020 47 % of the 657 million women globally aged between 45

and 59 contributed to the workforce [5]. The average age of menopause transition in the UK is 51 [6], considerably lower than the current UK retirement age of 66 [7]. Experiencing menopause symptoms while working has repeatedly been shown to negatively impact work ability [8,9]. A 2022 survey of 4014 UK women conducted by the Fawcett Society found that women's working lives can be severely impacted by menopause symptoms. Women reported leaving jobs entirely, reducing hours or refusing promotions due to menopause symptoms [10]. Another UK survey found nearly two thirds of women working while experiencing symptoms of the menopause were negatively affected, reporting being less able to concentrate and an increased feeling of stress [11]. Jack et al. [12] reviewed the existing literature and made several key recommendations, including providing health promotion

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programmes, alongside creating a positive culture and education for managers and colleagues.

In 2021 European Menopause and Andropause Society (EMAS) published a position statement on menopause in the workplace [9]. The statement called for employers, healthcare providers, and employees to make the workplace more supportive of those going through menopause. It has been reported [13] that there is a lack of high-quality evidence around the impact of the menopause on work. However, the evidence which does exist can be grouped into the themes: lack of recognition, sickness absence and costs, work ability, job characteristics, psychosocial and cultural factors, health, mental health and coping, and interventions.

While two recent reviews have focused on wellbeing in the workplace [14] and quality of life [15] at work, none have investigated work ability. Given the current economic situation across the world [16], the ability to both perform well at work and maintain full-time hours if desired is vital to female economic wellbeing [17]. Therefore, understanding how best to improve the work ability of menopausal women is a vital issue and currently unexplored. The aim of this review is to explore the evidence relating to effective interventions to reduce the negative impact of menopausal symptoms on women's ability to work and to evaluate whether there are existing interventions which have evidence of being effective.

2. Methodology

A narrative analysis was conducted focusing on workplace interventions aimed at supporting individuals experiencing menopause in the workplace. Searches using the key words menopaus*, or perimenopaus*, postmenopaus* or climacter*, were combined with words around employment and interventions. The search was conducted between December 2022 and July 2023 in the PsycINFO, Medline and Embase databases. Other inclusion criteria were papers written in the English language, research conducted in humans, and papers published between 2012 and 2023. Articles were screened and those not evaluating a workplace intervention were excluded (see Fig. 1 flowchart).

This review included high-quality primary level sources including;

cohort, longitudinal, qualitative cross sectional, and case control studies. Systematic reviews and meta-analysis were included in the search strategy; however, no relevant reviews were identified. Five reviews which focused on workplace health and wellbeing [12–15,18] included menopause in their scope, so were read in full and the references reviewed. This process identified no additional papers.

Search results were transferred into a Reference Management database, and combined, to allow the results to be de-duplicated. Results were then title screened by both reviewers separately, and papers not meeting the inclusion criteria were excluded. Disagreements were resolved by discussion, specifically by rereading the paper and referring to the inclusion criteria above. There were no cases where this did not resolve the disagreement.

After deduplication and title screening, the abstracts of 58 articles were extracted and screened by both reviewers against the inclusion and exclusion criteria (Fig. 1).

Twelve articles remained for full text review after this process. These papers were reviewed and critically appraised using the NICE critical appraisal tool. The main findings, participant details, and methods were extracted in order to construct the narrative review.

3. Results

3.1. Overview

Of the 12 studies included for in-depth review four were conducted in the UK, six in Europe, and one in Brazil. Across the 12 studies, 10 interventions were described (Table 1). Nine studies targeted women of menopausal age, where participants in these studies were all working women whose age varied between 40 and 62 years. One study included the whole workforce, while one only included all managers, one targeted women and managers. A wide variety of occupations were included, such as cleaners, office workers, medical professionals, and managers. Additionally, a diverse range of research designs were seen: randomized controlled trial (5), qualitative mixed methods (2), retrospective cohort (1), descriptive phenomenological study (1), and others (3).

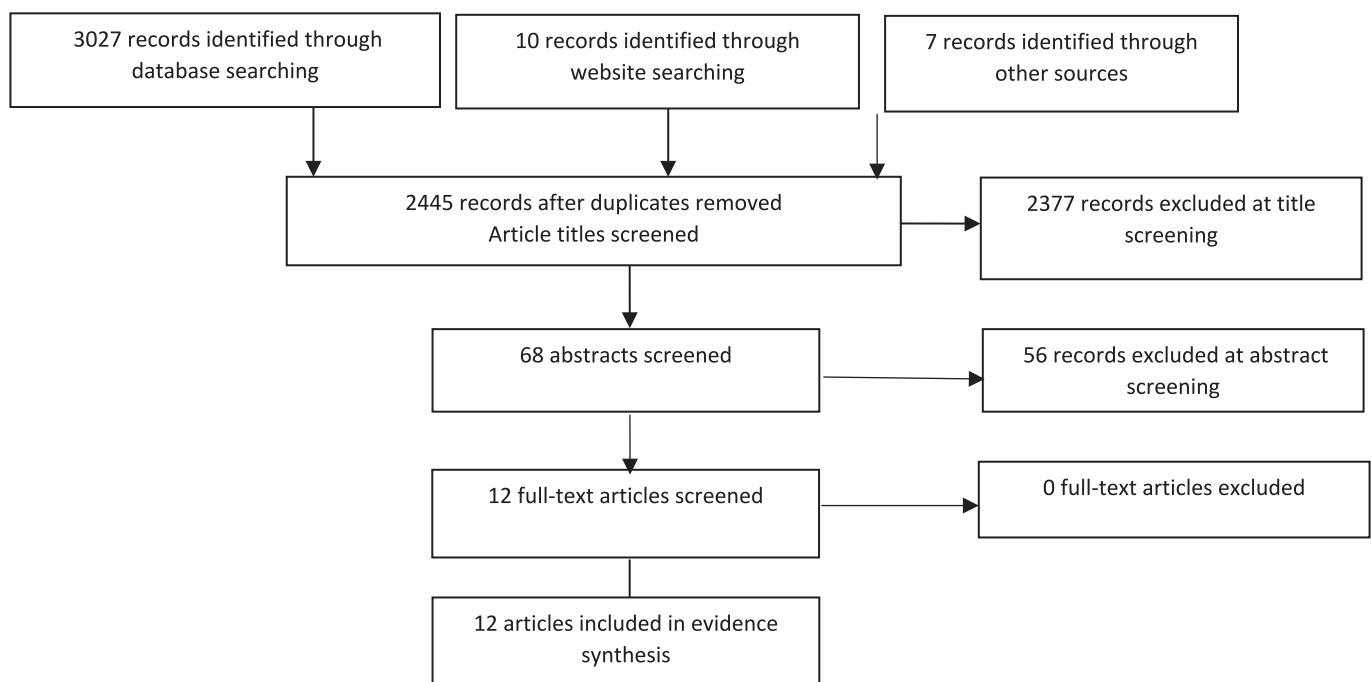


Fig. 1. Flow of information through the evidence review.

NB: record = record of article found – screened to assess eligibility for inclusion in review (according to criteria set out in review protocol).

Table 1
Papers included in the final evidence review.

Author, year of publication, origin	Reference number	Country	Methods	Participants
1. Conti et al. (2020) The impact of combined nutraceutical supplementation on work-related stress, mood and eating disorders during the menopausal transition: A pilot study.	19	Italy	Non-randomized, open-label, 1:1 clinical trial performed in parallel groups as a pilot study	Working women with mean age 52 years (n = 40)
2. Dunn (2022) The experience of workplace coaching for menopausal women: A descriptive phenomenological study	20	UK	Descriptive phenomenological study	Menopausal working women who had received workplace coaching (n = 7), age range undisclosed.
3. Geukes et al. (2019) Improvement of menopausal symptoms and the impact on work ability: A retrospective cohort pilot study.	21	The Netherlands	Retrospective cohort pilot study	Working women attending a menopause clinic (n = 31) with a median age of 52
4. Geukes et al. (2023) Evaluation of a workplace educational intervention on menopause: A quasi-experimental study	22	The Netherlands	Quasi-experimental pilot study	Women working in two departments across a single organization (n = 52)
5. Hardy, Griffiths and Hunter (2019) Development and evaluation of online menopause awareness training for line managers in UK organizations.	23	UK	Evaluation of training	Ninety-eight line managers in three UK organizations (one public, two private sector)
6. Hardy et al. (2018) Self-help cognitive behavior therapy for working women with problematic hot flushes and night sweats (MENOS@Work): A multicenter randomized controlled trial.	24	UK	Randomized control trial - CBT	Working women aged 45 to 60 years, having 10 or more problematic HFNS a week. 124 women were randomly allocated to SH-CBT (n = 60) and NTWC (n = 64).
7. Portella et al. (2021) Meditation as an approach to lessen menopausal symptoms and insomnia in working women undergoing the menopausal transition period: A randomized controlled trial.	25	Brazil	Randomized control trial - Yoga	N = 47 women between the ages of 40 and 55 who worked in three of the National Institute of Social Security units
8. Rutanen et al. (2014a) Effect of physical exercise on work ability and daily strain in symptomatic menopausal women: a randomized controlled trial.	26	Finland	Randomized control trial - Physical Activity	N = 123 women aged 44–62 (mean age 53.8 ± 3.4) years who worked full- or part-time
9. Rutanen et al. (2014b) Short- and long-term effects of a physical exercise intervention on work ability and work strain in symptomatic menopausal women.	27	Finland	Randomized control trial - Physical Activity (Secondary analysis)	Occupationally active women aged 47 to 62 years (N = 89)
10. Targett and Beck (2022) Menopause as a well-being strategy: Organizational effectiveness, gendered ageism and racism.	28	UK	Wellbeing strategy - Staff survey	Online survey was distributed to all council employees and completed by 189 individuals
11. Verburgh et al. (2020) "I Get That Spirit in Me"-Mentally Empowering Workplace Health Promotion for Female Workers in Low-Paid Jobs During Menopause and Midlife.	29	The Netherlands	Qualitative mixed methods questionnaires and interviews	Working women in low-paid jobs working at Amsterdam University Medical Centre (n = 56)
12. Verburgh et al. (2022) Workplace Health Promotion Among Ethnically Diverse Women in Midlife With a Low Socioeconomic Position.	30	The Netherlands	Qualitative mixed methods implementation trial and evaluation	N = 22: Women from the target group (women aged 45 to 60 years employed in the lowest income jobs, n = 9); organizational representatives (n = 8); workplace health promotion professionals (n = 5). Participant phase n = 70 women from the target group

The ten included interventions were highly diverse, with many including multiple components in a variety of combinations (Table 2). Intervention components included 1) advice about menopause symptoms and strategies 2) lifestyle advice (diet, behaviour, sleep hygiene), 3) medical treatment, 4) physical exercise, 5) meditation, 6) cognitive behavioural therapy (CBT), 7) workplace coaching, 8) manager training and 9) workplace policy change.

To gain insight into the impact of each intervention, results will be presented according to the following categories: 1) multifaceted interventions (those with four components in Table 2 - Hardy et al. [24] and Verburgh et al. [29,30]), 2) interventions including medical treatment (Geukes et al. [21] and Conti et al. [19]) 3) lifestyle habit change (Rutanen et al. [26,27] and Portella et al. [25]) and 4) workplace interventions (Geukes et al. [22], Dunn [20], Hardy, Griffiths and Hunter [23] and Targett and Beck [28]).

3.2. Multifaceted interventions

Both Hardy et al. [24] and Verburgh et al. [29,30] described interventions with multiple components: both included menopause and lifestyle education and advice, while Hardy et al. [24] also included meditation and CBT components, Verburgh et al. [29,30] included physical exercise and workplace coaching. In both evaluations, it is

unclear which components drove the results below.

In the intervention evaluated by Hardy et al. [24] sixty symptomatic working women in the UK were given a printed booklet comprised of four chapters of information, exercises and homework tasks which they were asked to complete over four weeks. Chapters covered psycho-education about menopause, stress management, breathing/relaxation, and learning cognitive and behavioural strategies to help manage symptoms, stress, and sleep. Participants also received a relaxation and breathing exercise on a CD and an infographic.

A number of work-related outcomes were investigated by the authors: the Work and Social Adjustment Scale (WSAS) [31], absenteeism, work performance, the Stanford Presenteeism scale [16] and turnover intention. There was a significant improvement in WSAS scores between baseline measurement (12.74) and the subsequent 6, and then 20, week follow-ups (8.52 and 8.65; $P > 0.01$). There were no other differences in scores, with the exception of a significant improvement in presenteeism at 20 weeks.

With regard to symptoms, the intervention group showed significantly reduced hot flush/night sweats problem-rating mean scores at 6 weeks (6.25 to 4.38; $P < 0.001$), and at 20 weeks (6.25 to 4.36; $P < 0.01$). Hot flush/night sweat frequency mean scores were also significantly reduced at 6 weeks (53.13 to 40.59, $P < 0.01$), as were scores on the Hot Flush Belief Scale [32] (2.35 at baseline, reducing to 1.59 and

Table 2
Components included in each intervention.

Intervention	Advice about menopause symptoms and strategies	Lifestyle advice (diet, behaviour, sleep hygiene)	Medical treatment	Physical exercise	Meditation	CBT	Workplace coaching	Manager training	Workplace policy change
1. Conti (2020) The impact of combined nutraceutical supplementation on work-related stress, mood and eating disorders during the menopausal transition: A pilot study.		x	x						
2. Dunn (2022) The experience of workplace coaching for menopausal women: A descriptive phenomenological study							x		
3. Geukes (2019) Improvement of menopausal symptoms and the impact on work ability: A retrospective cohort pilot study.	x	x	x						
4. Geukes et al. (2023) Evaluation of a workplace educational intervention on menopause: A quasi-experimental study	x	x					x		
5. Hardy, Griffiths and Hunter (2019) Development and evaluation of online menopause awareness training for line managers in UK organizations.								x	
6. Hardy (2018) Self-help cognitive behavior therapy for working women with problematic hot flushes and night sweats (MENOS@Work): A multicenter randomized controlled trial.	x	x			x	x			
7. Portella (2021) Meditation as an approach to lessen menopausal symptoms and insomnia in working women undergoing the menopausal transition period: A randomized controlled trial.		x			x				
8. Rutanen (2014) Effect of physical exercise on work ability and daily strain in symptomatic menopausal women: a randomized controlled trial.				x					
9. Rutanen (2014b) Short- and long-term effects of a physical exercise intervention on work ability and work strain in symptomatic menopausal women.									
10. Targett and Beck (2022) Menopause as a well-being strategy: Organizational effectiveness, gendered ageism and racism.									x
11. Verburgh (2020) "I Get That Spirit in Me"-Mentally Empowering Workplace Health Promotion for Female Workers in Low-Paid Jobs During Menopause and Midlife.	x	x		x			x		
12. Verburgh (2022) Workplace Health Promotion Among Ethnically Diverse Women in Midlife With a Low Socioeconomic Position.									

1.55, $P < 0.001$). They also found significant positive improvements for scores on the Pittsburgh sleep questionnaire (PSQ) [33]. Neither anxiety or depression scores or memory and concentration scores showed significant differences across the time period, whereas wellbeing scores significantly increased.

Verburgh et al. [29,30] evaluated a single work-life intervention across two different papers, the first looking at outcomes, the second at implementation. Fifty-six participants were enrolled in a work-life programme (WLP) which took place over two to four months and included eight one-hour sessions. The first of these sessions was a menopause consultation, where participants learnt about menopause symptoms and

strategies for coping with them. A health check was also completed and the results discussed with participants. Participants then completed three work-life coaching sessions and three physical activity training sessions. The work-life coaching sessions included advice on how to maintain a healthy work-life balance and clarifying personal work aims and goals. The physical activity training sessions included walking or personal training and were designed to support participants to be more active in their daily lives and understand the importance of physical activity to health. The final session was a second menopause consultation, again examining the impact of symptoms and coping strategies.

A variety of outcomes were evaluated. With regard to work ability

score [34] a non-significant improvement ($P = 0.072$) was seen in the intervention group. No overall difference in work functioning score [35] was seen.

With regard to symptoms, an improvement (17.9 to 14.5, $P = 0.000$) on the Greene Climacteric Scale (GCS) [36] was found post intervention and significant improvements in depressive symptoms were also seen, but not with regard to anxiety. In addition, they conducted qualitative interviews with twelve participants, who described the intervention as increasing their feelings of empowerment. Participants in the study reported changes in mental wellbeing, including feeling less stressed, depressed, tired, and having more energy. Some participants reported that their intervention had led to more openness about menopause.

Verburgh et al. [30] described some of the logistical challenges of enacting a workplace intervention for staff experiencing menopausal symptoms. They found that lack of awareness, along with a lack of buy-in from managers, can represent a significant barrier to the success of an intervention. Lack of time at work, and inability to leave the workplace also acted as barriers. They emphasised the need for employers to create space for employees to take part in interventions in the workplace during working hours. They point to four professional levels where awareness of menopause as an occupational health challenge should be raised: employees, line managers, HR advisors, and occupational health physicians.

3.3. Interventions including pharmacological or nutraceutical treatment

Two very different interventions described the impact of interventions with involved a pharmacological or nutraceutical treatment alongside lifestyle advice. The first of these involved conventional HRT treatment within a menopause clinic, the second a daily nutraceutical treatment.

Geukes et al. [21] described an evaluation of usual care at their menopause clinic. Thirty-one working women attending the authors' menopause clinic in the Netherlands were assessed for work ability at the beginning and end of usual treatment. Usual treatment involved: a first consultation with an expert nurse for 60 min. During this appointment patients were given educational material on the subject of menopause and its symptoms. Lifestyles were reviewed and relevant advice given (eg smoking cessation) before strategies for coping with problematic symptoms are discussed. Finally women see a gynaecologist to discuss medical treatment options. Six weeks later patients see the gynaecologist to start treatment. Three to six months later patients then meet the specialist nurse for a thirty-minute follow-up appointment.

With regard to work ability no significant impact was found on scores on the Work Ability Index (WAI) [34], with the final mean score still indicating low work ability (34.86). However, a significant reduction in how adversely affected women were by their symptoms after attending the clinic and receiving treatment. It was found that of all the domains on the Greene Climacteric Scale improvement in depressive symptoms was particularly related to improved WAI scores. Positive change in GCS depression domain was significantly associated with improved work ability (WAI), although after correction for WAI at baseline the effect of depression was no longer significant ($\beta = 0.855$, $P = 0.113$).

In a very different intervention Conti et al. [19] described the impact of a nutraceutical compound (Assist Forte Retard®), taken for four months. Forty women were divided into two groups: one group received diet and behavioural advice, the format of which was unclear. The second group received both of these, plus the nutraceutical compound (Assist Forte Retard®).

Both work and mental health outcomes were investigated. No significant differences were seen across any of the three domains on the Job Content Questionnaire (JCQ) [37]. With regard to Zung depression scale (ZDS) [38] scores, participants in the intervention group had a starting median score of 39, with an improved final median score of 26.5 ($P < 0.0001$). The control group had a much lower starting median (28), limiting comparability, which remained unchanged over the time

period.

3.4. Lifestyle habit change

Two papers examined the impact of regular sessions of physical exercise or meditation.

In the intervention described by Rutanen et al. [26,27] across two papers, sixty-three women took part in the intervention, a six-month aerobic exercise training programme. This comprised four weekly fifty-minute sessions, progressively increasing in intensity. Though the sessions could involve a variety of different exercises, including jogging, cycling, swimming or gymnastics, two sessions were supposed to include walking or Nordic walking.

Post intervention, no significant improvement in mean score on the WAI was found, with a mean score of 38.6 in the intervention group at baseline, and 39.4 post-intervention Rutanen et al. [26]. A significant reduction in daily physical strain after participants took part in the intervention (score of 2.4 reducing to 2.2, $P < 0.05$) was found, with no reduction was found in mental strain Rutanen et al. [26]. However, an increase in mental resources was seen in the intervention group after scores were controlled for baseline scores, age, and work demands (Rutanen et al. [27]) [25].

Instead of physical activity, Portella et al. [25] examined the effect of a form of meditative yoga, Raja Yoga. Eighteen women took part in the intervention, which comprised of eight weeks of daily 45-minute self-directed Raja Yoga sessions. Raja Yoga asks participants to sit in a comfortable position and focus on breathing. Both this group and the control group in this study (fifteen women) also received information on sleep hygiene- this included information on controlling bedtime and the time to wake up, avoiding alcohol and exercising in line with guidelines. There was no significant improvement on the specific measure of daytime dysfunction (the score most relevant to work ability) in the meditation group. However, significant improvements were seen in some symptom and sleep scores. Significant differences were also found in the group who were given sleep hygiene information alone, though from a much higher baseline (meditation: 1.39 to 1.00, $P = 0.296$; sleep hygiene only: 2.13 to 1.2, $P = 0.003$).

With regard to symptoms, the intervention group participants showed a significant improvement on the Kupperman menopausal index (KMI) [39] and saw their average score improve from 23.33 (± 9.114) at baseline, to 20.06 (± 7.581) at eight weeks. However, there were no significant improvements in nervousness (0 weeks: 4.22; 8 weeks: 3.78, $P = 0.281$) or depression (0 weeks: 1.72; 8 weeks: 1.5, $P = 0.282$). Participants scores on sleep specific scales showed a different pattern: both groups showed an improvement over time in terms of insomnia intensity, although only the control group showed an improvement on the Pittsburgh sleep questionnaire (PSQ) [33].

3.5. Workplace interventions

Finally four very different interventions are described below, but all focus on the workplace experience, as impacted by information workshops [22], workplace coaching [20], workplace policy [28] and manager training [23].

Geukes et al. [22] delivered two workshops to 25 women working in a single department in a municipal department in the Netherlands. Another department (29 women) did not receive the intervention and served as the control group. The first workshop was open to women of all ages in the department and different stages of life (menstruation, fertility, pregnancy and menopause) were discussed, in the context of workplace issues and encouragement to seek help. The second workshop focused specifically on the menopause, and included information on sex hormones, lifestyle and diet and treatment options, as well as information about seeking help at work. Managers and HR staff in the intervention department were also invited to a managers' workshop but the outcomes were not reported as part of this study. After 12 weeks a

significant improvement in Self-Efficacy to Manage Symptoms score was found in the intervention group compared to the control group (6.52 (SD 1.45), 5.84 (SD 1.51)). While there were no differences in menopausal symptoms or WAI scores between the two groups, the intervention group reported significantly less presenteeism ($P = 0.038$) and finding their organization more menopause-friendly ($P = 0.009$) compared to the control group.

Dunn's [20] study involved a qualitative evaluation of the experiences of seven women working in the UK who received workplace coaching. No details are provided as to the format of workplace coaching or how many sessions each woman received. It was found that experiencing coaching had given the women a desire for action, to find positive strategies based on a better understanding of their situation at work. With one participant describing how she would have left her job if not for the understanding gained through coaching. The women reported losing confidence after experiencing menopause symptoms and that coaching provided an opportunity to explore the impact of menopause and develop coping strategies. Coaching was found to provide a valuable tool to promote women's wellbeing, and cope with feelings of transition. Women who had been empowered by coaching were enthusiastic about advocating for other women experiencing symptoms at work.

Targett and Beck [28] discussed the inclusion of menopause in an organizational well-being strategy. Their UK employer had deliberately implemented menopause considerations into their well-being strategy instead of instituting a separate menopause policy. They found that this inclusion made menopause discussion in the workplace more mainstream, which was something participants felt was needed, as it was felt there was general unwillingness in older male colleagues to talk about "women's issues".

Hardy, Griffiths, and Hunter [23] evaluated an online training course for managers. Sixty-one managers completed a thirty-minute online training module about menopause. The training involved watching eight videos for answering eight multiple choice questions and receiving a certificate. The videos were grounded in behaviour change techniques such as intention formation and barrier identification. The training was found to improve managers' menopause-related knowledge, and reduce the likelihood of them thinking menopause is an embarrassing topic to discuss at work, confidence to discuss the menopause with staff and their intention to discuss menopause.

4. Discussion

This review aimed to investigate the current evidence for effective interventions to improve work ability in women experiencing menopause symptoms, a subject currently under-investigated. The ten interventions described across the twelve papers in this review are highly diverse and of varying quality, making effective comparison complex. The interventions were designed to promote several outcomes, which can be summarised to five categories: work ability, improved symptom management, mental wellbeing and empowerment, increased openness about menopause in the workplace, and the impact of management/leadership.

4.1. Work ability

It has been shown repeatedly that experiencing menopausal symptoms harms the ability of women to be effective at work [8–11]. None of the interventions showed a significant improvement in work-related measures post-intervention, whether this was measured by work ability, absenteeism, work performance, daytime dysfunction, work functioning or turnover intention. Rutanen et al. [26] found a significant reduction in daily physical strain after participants took part in the intervention, but given the intensity of the exercise regimen participants undertook, this is not surprising, and no difference in mental strain was seen. Geukes et al. [22] found a reduction in presenteeism, after their intervention, as did Hardy et al. [24], but no improvement in work

ability. This is disappointing, as it means there is currently no published intervention which effectively improves the ability of working menopausal women to improve their performance at work. This is an urgent gap in the existing literature. Many large employers are using interventions such as menopause cafes [40] which, despite not currently being the subject of academic review, receive positive feedback from women in the workplace. Investigating these interventions further for their impact on work ability is a vital next step.

4.2. Improved symptom management

Performance at work is only one part of women's lives, and while vital, is not the only important outcome. Four papers examined the impact of symptom management and found various improvements: Hardy et al. [24], Portella et al. [25], Verburgh et al. [29] and Geukes et al. [21]. This is in line with a recent review on wellbeing in the workplace [14]. Though these interventions varied greatly in their approach, one aspect all four had in common was the inclusion of lifestyle and general health advice. This commonality needs to be explored further to understand the underlying mechanism of improvement. It has been suggested that increased knowledge and understanding of the menopause is associated with a better menopause experience [41], highlighting the importance of education.

4.3. Mental wellbeing and empowerment

Though seven of the papers reviewed here investigated the impact of their intervention on mental wellbeing and empowerment, quantitative results were mixed, with Verburgh et al. [29] finding significant improvements in depressive symptoms, but not anxiety, while Hardy et al. [24] found significant improvements in wellbeing but not depression or anxiety. However, the two studies which included a qualitative component found that women experienced increased confidence and empowerment post-intervention- this is an avenue for further exploration as it may be that important nuances are not being measured in current quantitative studies.

4.4. Increased openness about menopause in the workplace

The importance of being open about the impact of menopause in the workplace, to increase understanding and make discussion more mainstream was a theme across four of the papers. Post intervention participants reported discussions with their line manager [24], increased discussion with colleagues [29] and increased empowerment to advocate for other colleagues experiencing symptoms [20]. Though the benefits of this workplace culture change may be difficult to evaluate in a single study, the importance of an open culture is an important avenue for future research. It has been suggested that being part of formal social groups reduces the intensity of menopause symptoms [42] and there is potential to maximise the social support component of workplace interventions.

4.5. The impact of management/leadership

Effective and understanding line managers have been shown to have a major impact on workplace experience [43]. Hardy, Griffiths, and Hunter [23] showed that when line managers are trained on the menopause, their understanding of the issues women are likely to experience is increased, as is their confidence in having open conversations. This intervention again points to the importance of changing workplace culture, rather than focusing solely on menopausal staff members. Verburgh et al.'s [30] study around intervention implementation highlighted the importance of a supportive manager to allow women to access any of the other interventions described above during worktime and highlights another vital point: if women are not able to take time away from their duties to access a workplace intervention, no

matter how effective it has been shown to be, it will not benefit that woman.

4.6. Limitations

The studies included in this review were of variable quality, and therefore caution needs to be exercised when drawing conclusions. Limitations included: small numbers, lack of control groups, lack of blinding, unclear levels of adherence to intervention protocols by participants and use of subjective measures. Follow-up times were also largely short. These limitations highlight the importance of well-designed, high-quality RCTs to support working menopausal women. Future research should focus on evaluating the work ability impact of existing interventions, to support the continuing careers of menopausal women.

5. Conclusions

The workplace is an established space for effective public health interventions [44,45]. Providing effective menopause care to staff has the potential to improve workforce retention, productivity, presenteeism and absenteeism as well as improve staff wellbeing. Though a greater number of employers are understanding the business and ethical case for providing menopause care to staff [9], the evidence base around how best to do this is lacking. None of the reviewed papers provided compelling evidence for improved work ability after intervention, although some interventions led to broader positive outcomes. Importantly, the findings indicate that there is a need to evaluate existing supportive activity within workplaces. The National Health Service in England the largest employer of women in Europe [46], produced “Supporting our NHS people through menopause: guidance for line managers and colleagues” [47] and signed the Wellbeing of Women Menopause pledge [48]. With further research and a robust evaluation of interventions, employers will be better able to support their workforce and retain skilled staff through their menopause and beyond.

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