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Global consensus recommendations on menopause in the workplace: A European Menopause and Andropause Society (EMAS) position statement

Margaret Rees^{a,*}, Johannes Bitzer^b, Antonio Cano^c, Iuliana Ceausu^d, Peter Chedraui^e, Fatih Durmusoglu^f, Risto Erkkola^g, Marije Geukes^h, Alan Godfreyⁱ, Dimitrios G. Goulis^j, Amanda Griffiths^k, Claire Hardy^l, Martha Hickey^{m,n}, Angelica Lindén Hirschberg^o, Myra Hunter^p, Ludwig Kiesel^q, Gavin Jack^r, Patrice Lopes^s, Gita Mishra^t, Henk Oosterhof^u, Amos Pines^v, Kathleen Riach^w, Chrisandra Shufelt^x, Mick van Trotsenburg^y, Rachel Weiss^z, Irene Lambrinoudaki[#]

^a Women's Centre, John Radcliffe Hospital, Oxford OX3 9DU, United Kingdom

^b Department of Obstetrics and Gynecology, University Hospital, Basel, Switzerland

^c Department of Pediatrics, Obstetrics and Gynecology, University of Valencia and INCLIVA, Valencia, Spain

^d Department of Obstetrics and Gynecology I, Carol Davila" University of Medicine and Pharmacy, "Dr. I. Cantacuzino" Clinical Hospital, Bucharest, Romania

^e Instituto de Investigación e Innovación en Salud Integral (ISAIN), Facultad de Ciencias Médicas, Universidad Católica de Santiago de Guayaquil, Guayaquil, Ecuador

^f Istanbul Medipol International School of Medicine, Istanbul, Turkey

^g Department of Obstetrics and Gynecology, University Central Hospital, Turku, Finland

^h Department of Obstetrics and Gynecology, Ziekenhuisgroep Twente (Hospital Group Twente), Post box 7600, 7600 SZ Almelo, Netherlands

ⁱ Department of Computer and Information Sciences, Northumbria University, Newcastle upon Tyne, NE1 8ST, United Kingdom

^j Unit of Reproductive Endocrinology, First Department of Obstetrics and Gynecology, Medical School, Aristotle University of Thessaloniki, Greece

^k School of Medicine, University of Nottingham, Nottingham NG7 2TU, United Kingdom

^l Division of Health Research, Faculty of Health and Medicine, Lancaster University Lancaster, LA1 4AT, United Kingdom

^m Department of Obstetrics and Gynecology, University of Melbourne, Parkville, Australia

ⁿ The Royal Women's Hospital, Victoria, Australia

^o Department of Women's and Children's Health, Karolinska Institutet and Department of Gynecology and Reproductive Medicine, Karolinska University Hospital, Stockholm, Sweden

^p Institute of Psychiatry, Psychology and Neuroscience, Kings College London, London SE1 9RT, United Kingdom

^q Department of Gynecology and Obstetrics, University of Münster, Münster, Germany

^r Monash Business School, Monash University, Caulfield East VIC 3145, Australia

^s Polyclinique de l'Atlantique Saint Herblain. F 44819 St Herblain France, Université de Nantes F 44093 Nantes Cedex. France

^t School of Public Health, The University of Queensland, Brisbane, Australia

^u Werkindeovergang Consultancy, Lange Singel 24, 9243KJ Bakkeveen, Netherlands

^v Sackler Faculty of Medicine, Tel-Aviv University, Israel

^w Adam Smith Business School, University of Glasgow, Glasgow G12 8QQ, United Kingdom

^x Barbra Streisand Women's Heart Center, Cedars-Sinai Medical Center, Los Angeles CA 90048, United States

^y Department of Obstetrics and Gynecology, University Hospital St. Poelten-Lilienfeld, Austria

^z Rowan Consultancy, 4 Kinnoull Street, Perth, PH1 5EN, United Kingdom

[#] Second Department of Obstetrics and Gynecology, National and Kapodistrian University of Athens, Greece

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ABSTRACT

Introduction: Worldwide, there are 657 million women aged 45–59 and around half contribute to the labor force during their menopausal years. There is a diversity of experience of menopause in the workplace. It is shaped not only by menopausal symptoms and context but also by the workplace environment. It affects quality of life, engagement, performance, motivation and relations with employers.

Aim: To provide recommendations for employers, managers, healthcare professionals and women to make the workplace environment more menopause supportive, and to improve women's wellbeing and their ability to remain in work.

* Corresponding author.

E-mail address: margaret.rees@st-hildas.ox.ac.uk (M. Rees).

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Materials and methods: Literature review and consensus of expert opinion.

Summary recommendations: Workplace health and wellbeing frameworks and policies should incorporate menopausal health as part of the wider context of gender and age equality and reproductive and post-reproductive health. Workplaces should create an open, inclusive and supportive culture regarding menopause, involving, if available, occupational health professionals and human resource managers working together. Women should not be discriminated against, marginalized or dismissed because of menopausal symptoms. Health and allied health professionals should recognize that, for some women, menopausal symptoms can adversely affect the ability to work, which can lead to reduction of working hours, underemployment or unemployment, and consequently financial insecurity in later life.

1. Introduction

The menopause, or the cessation of menstruation, is a normal stage of life. The average age of the menopause is 51 years. However, it can occur much earlier, either naturally, with no identifiable underlying cause [1], or as a consequence of disease, surgery, radiotherapy or chemotherapy. In 2020, globally 657 million women were aged 45–59 [2] (Fig. 1). Overall, 47% of these women worldwide contributed to the labor force, but the figures varied both regionally, ranging from 22% to 63%, as well as by age: 64%, 59%, 51%, at age 45–49, 50–54, and 55–59 respectively [3]. Labor force participation for women living in the member states of the Organisation for Economic Co-operation and Development (OECD) in 2019 was 75%, 73%, 65%, at age 45–49, 50–54, and 55–59 respectively [4].

There is a diversity of experience of menopause in the workplace. It is shaped not only by menopausal symptoms and context, but also by the physical and psychosocial characteristics of the workplace environment. It can affect quality of life, engagement, performance, motivation and relations with employers [5]. Women with premature ovarian failure, below the age of 40 years, may also have to contend with stigma surrounding fertility issues. Those living with and beyond cancer will be dealing with ongoing management of the disease, which will be individualized to their malignancy [6,7], and this will impact their experience of work as well. Menopausal symptoms may cause further problems in women with a pre-existing disability or chronic disease, as well in those who have experienced or are currently experiencing other forms of discrimination in the workplace. Trans men and women may also experience a natural or surgical menopause, depending on ovarian retention and use of hormone therapy [8], and this can exacerbate experiences of exclusion or discrimination in a work setting.

Thus, globally, the menopause is increasingly considered to be an important gender- and age-equality issue, with symptoms often considered within equalities legislation. Dealing with its consequences should be part of maintaining an inclusive work environment [9,10]. Furthermore, supporting women in work will affect their pensions, income, security and wellbeing in later life. Aspects of both the physical and psychosocial work environment, many of which are modifiable, shape menopausal experience, just as menopause symptoms affect work [11]. Organizations should therefore ensure they have supportive cultures and effective policies that educate managers, supervisors, occupational health professionals and the general workforce about the menopause [12]. Women should be able to access evidence-based advice and healthcare [13,14,15,16,17], and able to share experiences [18,19]. Organizations may also provide financial support for resources that allow menopausal women to self-monitor symptoms [20,21,22].

In 2016, EMAS published recommendations on conditions in the workplace for menopausal women [23]. This 2021 document takes into account the 2016 recommendations, new research and recent guidance by employer and employee organizations. It aims to be applicable to all types of occupations and locations, whether women attend in person or virtually (Fig. 2) [24].

2. Menopausal symptoms and their impact on work

2.1. Menopausal symptoms

Hot flushes and night sweats are the most common symptoms of the menopause. Although they may begin before periods stop, the prevalence of flushes is highest in the first year after the final menstrual period [25]. A pooled analysis using data from 21 312 women (median age 50 years) in eight studies undertaken in the UK, USA, Australia and Japan found that the overall prevalence of vasomotor symptoms was 40%, ranging from 13% to 62% [26]. Other menopausal symptoms may include chronically disturbed sleep, which, in turn, can lead to insomnia, fatigue, irritability and difficulties with short-term memory and concentration as well as muscle and joint discomfort [27,28]. Although vasomotor symptoms usually are present for less than five years, some women will continue to flush beyond the age of 60 years [29,30,31,32]. Urogenital symptoms may be lifelong [33]. Self-reported menopausal symptoms vary considerably between races and ethnic groups, being more severe in Afro-Caribbean than in Caucasian or Japanese or Chinese women [26,30,34]. Surgically induced menopause often leads to the immediate onset of vasomotor symptoms. Current smoking and obesity may also predispose a woman to more severe or frequent hot flushes [32, 35].

2.2. Impact on work

Most but not all research suggests that some women perceive menopausal symptoms to have a negative impact on work and their ability to work effectively. Other studies have identified either positive effects of the menopause on working life [see for example 36], or that there is a diversity of symptom experience shaped by the workplace environment. Thus, a UK study of mid-aged women found that the main predictors of work outcomes were aspects of work such as role clarity and work stress; menopausal status was not associated with work outcomes but having problematic hot flushes at work was associated with intention to stop working [37]. In addition, an Australian study of hospital employees found that most women did not believe that menopausal symptoms negatively impacted on their work [38].

In research that focuses on the number or severity of symptoms, a clearer picture emerges. An Australian national survey found that most menopausal women functioned well at work, although having any vasomotor symptoms was associated with greater likelihood of poor-moderate ability to work [39]. A study undertaken in the Netherlands found that women with severe menopausal symptoms were 8.4 times more likely to report reduced ability to work compared with age-matched women without symptoms and furthermore were at risk of prolonged sickness absence from work [40]. The same research group found that treatment of symptoms improved the ability to work [41]. Furthermore, a Nigerian study found a significant negative relationship between menopausal symptoms and perceived ability to work [42]. A Polish study found that, among peri- and postmenopausal women, the



Fig. 1. Menopause global overview.

MENOPAUSE IN THE WORKPLACE: GLOBAL CONSENSUS DETAILED RECOMENDATIONS



MENOPAUSE IS A GENDER- & AGE-EQUALITY ISSUE

FOR EMPLOYERS & ORGANIZATIONS



- Make health and wellbeing during the menopause a priority for the organization, ensuring a consistent and positive approach.
- Establish and promote a clear business case for ensuring that women with menopausal symptoms which impact on work are not stigmatized or discriminated against and that staff are retained.
- Have a zero-tolerance policy to bullying, harassment, victimization or belittling of women with menopause symptoms.
- Undertake an assessment of how work patterns (e.g. night working, shift patterns) may impact symptoms and allow flexible working arrangements, including the home, wherever possible.
- Ensure provision of training for managers and supervisors on how to have sensitive conversations at work.
- Develop an employment framework that recognizes the potential impact of the menopause and provides confidential sources of advice and counselling services.
- Ensure health and wellbeing policies supportive of menopause are incorporated in induction, training and development programs for all new and existing staff.
- Include explicit coverage of menopause in sickness and attendance management policies and ensure women can access workplace healthcare provision, where possible.



FOR MANAGERS/SUPERVISORS & WORKPLACE PRACTICE

- Create an open, inclusive and supportive culture regarding the menopause.
- For difficult problems, human resource functions should work with occupational health professionals if available.
- Allow disclosure of menopausal symptoms but do not assume that every woman wants to talk about them.
- Allow flexibility of dress codes and uniforms using thermally comfortable fabrics.
- Review control over workplace temperature and ventilation (e.g. provision of desk fans) and provide access to cold drinking water.
- Ensure access to clean and private changing and washing facilities as well as toilets.
- For customer-focused or public-facing roles, allow breaks to manage symptoms such as severe hot flushes.

FOR HEALTHCARE PROFESSIONALS (HCPs)



- HCPs should recognize that menopausal symptoms can adversely affect wellbeing, the quality of working life, the ability to work and the desire to continue to work, leading to reduction of working hours, underemployment or unemployment and impact on financial security in later life.
- HCPs should provide evidence-based advice on medical and lifestyle management of menopausal symptoms using national and international guidelines.
- Women living with and beyond cancer experiencing menopausal symptoms should be proactively encouraged to seek specialist advice, if available, as their treatment depend on tumor type.
- Occupational health professionals should provide advice on how to manage menopause and work, and should encourage women with troublesome symptoms to consult their usual health provider to explore individual treatment options.
- Women with a premature menopause should be encouraged to seek specialist services so that specific needs, such as those relating to fertility and osteoporosis, and treatment options can be addressed.



FOR WOMEN/EMPLOYEES WITH MENOPAUSAL SYMPTOMS

- Talk to their line managers, supervisors or designated persons if they experience menopause-related problems that impact on their ability to work.
- Seek help and advice from employee support or advocacy bodies (such as trade unions or professional associations) if they feel their workplace needs are not being acknowledged or supported.
- Use occupational health services or other healthcare/counselling provider services, depending on availability.
- Be aware of state-wide or national equality occupational health and safety legislation and regulation that protects menopausal women at work.
- Consult their usual healthcare provider about symptoms to discuss treatment options and self-help strategies.
- Access evidence-based guidelines for information on menopause care.
- Be involved in the development of health and wellbeing policies to ensure coverage of menopause in the workplace.
- Take part in induction, training and development programs that include coverage of menopause.
- Be involved in formal and informal support groups for women with menopausal symptoms.

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Fig. 2. EMAS Global consensus recommendations on menopause in the workplace.

ability to work correlated negatively with depression and insomnia severity as well as with vasomotor symptoms [43]. A Japanese study found that lower self-reported work performance was correlated with higher numbers of menopausal symptoms [44].

Apart from hot flushes, a UK study found that the most challenging symptoms were poor concentration, tiredness, poor memory, feeling low/depressed and reduced confidence [45]. Furthermore, where menopause is considered to be a taboo subject, lack of discussion about menopause at work and stigma about menopause add to the burden of symptoms for women [36,46,47]. Another UK study of women aged 50–55 found that those with severe symptoms had a higher chance of exiting employment or reducing their working hours [48]. This raises concerns not only regarding the effects on immediate income but also about the ability to reach retirement with sufficient pension contributions and savings for an adequate income and security in later life.

Studies of the effect of menopausal symptoms on the ability to work have focused on traditional work locations and environments or face-to-face working, rather than working from home or virtual working [11, 49]. However, it cannot be assumed that working from home or virtual working provides better working conditions [49,50]. Managers should assume responsibility for advising on their employees' working conditions at home within their best practicable means.

3. Employers and the menopause

Employers are aware that they need to attract and retain a workforce with experience and valuable skills and talent, and that there is a business case not to lose staff because of the menopause [5]. Strategies need to involve all in the workplace and to include occupational health professionals [12]. Women want increased knowledge and awareness in the workplace about the menopause so that it is no longer a taboo subject [46,47]. While some women may want to be able to talk about it and agree appropriate work adjustments, others may feel uncomfortable disclosing their menopause status to line managers and employers [45, 46]. Thus, it is important that employers foster a culture where it is acceptable to discuss menopause symptoms, and managers and supervisors are given information about menopause and trained in how to have supportive conversations with employees. This pertains to all work locations and patterns. Not surprisingly, in recent years professional bodies and employer/employee organizations have started to produce recommendations and guidelines to facilitate the continued economic participation of women in the workforce [see for example 51,52,53,54, 55,56]. Furthermore, organizations are beginning to incorporate menopause awareness in training programs for all new and existing staff [57].

4. Recommendations

4.1. Recommendations for employers and organizations

Legislation varies worldwide but, in general, employers must ensure the health and safety of all their employees. In many countries, employers have a duty to make a suitable and sufficient assessment of workplace risks to the health and safety of their employees within their best practicable means. This includes identifying and supporting groups of workers who might be particularly at risk. This approach should extend to assessing and managing any specific risks that women may experience during the menopause as a result of their workplace environments. These recommendations are for employers and senior leaders in organizations:

- Make health and wellbeing during the menopause a priority for the organization, ensuring a consistent and positive approach
- Establish and promote a clear business case for ensuring that women with menopausal symptoms which impact on work are not stigmatized or discriminated against and that staff are retained

- Have a zero-tolerance policy to bullying, harassment, victimization or belittling of women with menopause symptoms
- Undertake an assessment of how work patterns (e.g. night working, shift patterns) may impact symptoms and allow flexible working arrangements, including working from home, wherever possible
- Ensure provision of training for managers and supervisors on how to have sensitive conversations at work
- Develop an employment framework that recognizes the potential impact of the menopause and provides confidential sources of advice and counselling services
- Ensure health and wellbeing policies supportive of menopause are incorporated in induction, training and development programs for all new and existing staff
- Include explicit coverage of menopause in sickness and attendance management policies and ensure women can access workplace healthcare provision, where possible

4.2. Recommendations for managers/supervisors and workplace practice

Menopause may be considered to be a taboo subject, which is not discussed in the workplace, even though a large number of employees may be affected. Being able to have sensitive conversations and adjust the workplace environment will affect quality of life, engagement, performance and motivation for all staff. These recommendations are for managers and supervisors and workplace practice:

- Create an open, inclusive and supportive culture regarding the menopause
- For difficult problems, human resource functions should work with occupational health professionals, if available
- Allow disclosure of menopausal symptoms but do not assume that every woman wants to talk about them
- Allow flexibility of dress codes and uniforms using thermally comfortable fabrics
- Review control over workplace temperature and ventilation (e.g. provision of desk fans) and provide access to cold drinking water
- Ensure access to clean and private changing and washing facilities as well as toilets
- For customer-focused or public-facing roles, allow breaks to manage symptoms such as severe hot flushes

4.3. Recommendations for healthcare and allied healthcare professionals

All healthcare professionals should be aware that there is a diversity of experience of menopause in the workplace and, for some women, symptoms may have a negative impact on the ability to work. Thus, those dealing in women's health should have obtained requisite training in menopause. While menopausal symptoms usually last for less than five years, some women experience them for longer. These recommendations are for healthcare and allied healthcare professionals (HCPs):

- HCPs should recognize that menopausal symptoms can adversely affect wellbeing, the quality of working life, the ability to work and the desire to continue to work, leading to reduction of working hours, underemployment or unemployment and an impact on financial security in later life
- HCPs should provide evidence-based advice on medical and lifestyle management of menopausal symptoms using national and international guidelines
- Occupational health professionals should provide advice on how to manage menopause and work, and should encourage women with troublesome symptoms to consult their usual health provider to explore individual treatment options
- Women with a premature menopause should be encouraged to seek specialist services so that specific needs, such as those relating to fertility and osteoporosis, and treatment options can be addressed

- Women living with and beyond cancer experiencing menopausal symptoms should be proactively encouraged to seek specialist advice, if available, as their treatment options will depend on tumor type

4.4. Recommendations for women/employees experiencing menopausal symptoms

The menopause is a natural stage of life but may be caused by treatments such as surgery (oophorectomy), radiotherapy and chemotherapy. It should not be a taboo subject and those experiencing menopausal symptoms require the same support and understanding from their employer as anyone experiencing any ongoing health condition. Women should therefore, if they wish:

- Talk to their line managers, supervisors or designated persons if they experience menopause-related problems that impact on their ability to work
- Seek help and advice from employee support or advocacy bodies (such as trade unions or professional associations) if they feel their workplace needs are not being acknowledged or supported
- Use occupational health services or other healthcare/counselling services, depending on availability
- Be aware of state-wide or national equality and occupational health and safety legislation and regulation that protects menopausal women at work
- Consult their usual healthcare provider about symptoms to discuss treatment options and self-help strategies
- Access evidence-based guidelines for information on menopause care
- Be involved in the development of health and wellbeing policies to ensure coverage of menopause in the workplace
- Take part in induction, training and development programs that include coverage of menopause
- Be involved in formal and informal support groups for women with menopausal symptoms

5. Conclusions and summary recommendations

Women form a large part of the global workforce. These recommendations aim to make the workplace environment more menopause supportive, to improve women's wellbeing and their ability to remain in work and, thus, may also mean that more reach retirement with sufficient pension contributions and savings for an adequate income and security in later life. Thus:

- Workplace frameworks and policies should consider the impact of the menopause for all occupations, work locations and work patterns
- Workplaces should create an open, inclusive and supportive culture regarding menopause, involving access to occupational health professionals, if available
- Women should not be discriminated against, marginalized or dismissed because of menopausal symptoms
- Health and allied health professionals should recognize that menopausal symptoms can adversely affect the ability to work, and that working conditions can impact menopausal symptoms

Contributors

Margaret Rees prepared the initial draft and Claire Hardy the infographics, which were circulated to all other named authors for comments and approval; production was coordinated by Irene Lambrinouadaki and Margaret Rees.

Conflict of interest

1 Margaret Rees has received consulting fees in the past three years

from Sojournix, Inc.

2 Johannes Bitzer in the past 3 years has served on advisory boards of Bayer AG, Merck, MSD, Teva, Theramex, Mithra, Actavis, Ava, Natural cycles, Böhringer Ingelheim, Effik, Lilly, Exeltis, Vifor, Libbs, Gedeon Richter and HRA; and has given invited lectures and received honoraria by Bayer Pharma AG, Merck, Johnson and Johnson, Teva, Mylan, Allergan, Abbott, Lilly, Pfizer, Exeltis, Libbs, HRA and Pierre Fabre.

3 Antonio Cano has received in the past three years consulting fees from Pierre-Fabre Iberica and Mitsubishi Tanabe Pharma; and speakers' honoraria from Shionogi.

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References

- [1] G.D. Mishra, H.F. Chung, A. Cano, P. Chedraui, D.G. Goulis, P. Lopes, A. Mueck, M. Rees, L.M. Senturk, T. Simoncini, J.C. Stevenson, P. Stute, P. Tuomikoski, I. Lambrinouadaki, EMAS position statement: predictors of premature and early natural menopause, *Maturitas* 123 (2019) 82–88, <https://doi.org/10.1016/j.maturitas.2019.03.008>.
- [2] United Nations World Population Prospects 2019 <https://population.un.org/wpp/> [Accessed 20 April 2021].
- [3] United Nations. The World's Women 2020: Trends and Statistics. Women and men in the labour force. <https://www.un.org/en/desa/world%E2%80%99s-women-2020> [Accessed 20 April 2021].
- [4] Organisation for Economic Co-operation and Development OECD. Stat Labour force participation rate, by sex and age group. <https://stats.oecd.org> [Accessed 20 April 2021].
- [5] G. Jack, K. Riach, E. Bariola, M. Pitts, J. Schapper, P. Sarrel, Menopause in the workplace: what employers should be doing, *Maturitas* 85 (2016) 88–95, <https://doi.org/10.1016/j.maturitas.2015.12.006>.
- [6] S.F. Duijts, M.P. van Egmond, E. Spelten, P. van Muijen, J.R. Anema, A.J. van der Beek, Physical and psychosocial problems in cancer survivors beyond return to work: a systematic review, *Psychooncology* 23 (5) (2014) 481–492, <https://doi.org/10.1002/pon.3467>.
- [7] J.S. de Moor, E.E. Kent, T.S. McNeel, K.S. Virgo, J. Swanberg, J.K. Tracy, M. P. Banegas, X. Han, J. Qin, K.R. Yabroff, Employment outcomes among cancer survivors in the United States: implications for Cancer Care Delivery, *J. Natl. Cancer Inst.* (2020), <https://doi.org/10.1093/jnci/djaa084> djaa084. Advance online publication.
- [8] V. Libby, M. Lee, J.H. Liu, Transgender health: hormonal management at 50 years and beyond, *Maturitas* 126 (2019) 34–37, <https://doi.org/10.1016/j.maturitas.2019.04.220>.
- [9] International Labour Organization. ILOSTAT. Labour statistics on women. <https://ilostat.ilo.org/topics/women/> [Accessed 20 April 2021].
- [10] R.A. Hammam, R.A. Abbas, M.S. Hunter, Menopause and work—the experience of middle-aged female teaching staff in an Egyptian governmental faculty of medicine, *Maturitas* 71 (3) (2012) 294–300, <https://doi.org/10.1016/j.maturitas.2011.12.012>.
- [11] E. Bariola, G. Jack, M. Pitts, K. Riach, P. Sarrel, Employment conditions and work-related stressors are associated with menopausal symptom reporting among perimenopausal and postmenopausal women, *Menopause* 24 (3) (2017) 247–251, <https://doi.org/10.1097/GME.0000000000000751>.
- [12] M. Geukes, H. Oosterhof, M.P. van Aalst, J.R. Anema, Attitude, confidence and social norm of Dutch occupational physicians regarding menopause in a work context, *Maturitas* 139 (2020) 27–32, <https://doi.org/10.1016/j.maturitas.2020.05.015>.
- [13] The National Institute for Health and Care Excellence. Menopause: diagnosis and management NICE guideline [NG23] Published date: November 2015 Last updated: December 2019 <https://www.nice.org.uk/guidance/ng23>. (Accessed 20 April 2021).
- [14] H. Hamoda, N. Panay, H. Pedder, R. Arya, M. Savvas, The British Menopause Society & Women's Health Concern 2020 recommendations on hormone replacement therapy in menopausal women, *Post Reprod Health* 26 (4) (2020) 181–209, <https://doi.org/10.1177/2053369120957514>.
- [15] E. Armeni, I. Lambrinouadaki, I. Ceausu, H. Depypere, A. Mueck, F.R. Pérez-López, Y.T. Schouw, L.M. Senturk, T. Simoncini, J.C. Stevenson, P. Stute, M. Rees, Maintaining postreproductive health: a care pathway from the European Menopause and Andropause Society (EMAS), *Maturitas* 89 (2016) 63–72, <https://doi.org/10.1016/j.maturitas.2016.04.013>.
- [16] T.J. de Villiers, J.E. Hall, J.V. Pinkerton, S.C. Pérez, M. Rees, C. Yang, D.D. Pierroz, Revised global consensus statement on menopausal hormone therapy, *Maturitas* 91 (2016) 153–155, <https://doi.org/10.1016/j.maturitas.2016.06.001>.
- [17] The 2017 hormone therapy position statement of The North American Menopause Society, *Menopause* 25 (11) (2018) 1362–1387, <https://doi.org/10.1097/GME.0000000000001241>.
- [18] R. Weiss, Menopause Cafés: it's good to talk, *Maturitas* 132 (2020) 79–80, <https://doi.org/10.1016/j.maturitas.2019.09.002>.
- [19] Cronin, C., Hungerford, C., & Wilson, R.L. (2020). Using Digital Health Technologies to Manage the Psychosocial Symptoms of Menopause in the Workplace: a Narrative Literature Review. *Issues in mental health nursing*, 1–8. Advance online publication. <https://doi.org/10.1080/01612840.2020.1827101>.
- [20] G.A. Bachmann, Applause for telemedicine as an optimal platform for specific menopausal health-care visits beyond COVID-19, *Case Rep. Women's Health* 27 (2020) e00241, <https://doi.org/10.1016/j.crwh.2020.e00241>.
- [21] G. Coulby, A. Clear, O. Jones, A. Godfrey, A scoping review of technological approaches to environmental monitoring, *Int. J. Environ. Res. Public Health* 17 (11) (2020) 3995, <https://doi.org/10.3390/ijerph17113995>.
- [22] A. Godfrey, V. Hetherington, H. Shum, P. Bonato, N.H. Lovell, S. Stuart, From A to Z: wearable technology explained, *Maturitas* 113 (2018) 40–47, <https://doi.org/10.1016/j.maturitas.2018.04.012>.
- [23] A. Griffiths, I. Ceausu, H. Depypere, I. Lambrinouadaki, A. Mueck, F.R. Perez-Lopez, Y.T. van der Schouw, L.M. Senturk, T. Simoncini, J.C. Stevenson, P. Stute, M. Rees, EMAS recommendations for conditions in the workplace for menopausal women, *Maturitas* 85 (2016) 79–81, <https://doi.org/10.1016/j.maturitas.2015.12.005>.
- [24] International Standard Classification of Occupations (ISCO) International Labour Organization. 2010 <https://www.ilo.org/public/english/bureau/stat/isco/index.htm> [Accessed 20 April 2021].
- [25] P. Monteleone, G. Mascagni, A. Giannini, A.R. Genazzani, T. Simoncini, Symptoms of menopause - global prevalence, physiology and implications, *Nat Rev Endocrinol* 14 (4) (2018) 199–215, <https://doi.org/10.1038/nrendo.2017.180>.
- [26] H.F. Chung, N. Pandeya, A.J. Dobson, D. Kuh, E.J. Brunner, S.L. Crawford, N. E. Avis, E.B. Gold, E.S. Mitchell, N.F. Woods, J.T. Bromberger, R.C. Thurston, H. Joffe, T. Yoshizawa, D. Anderson, G.D. Mishra, The role of sleep difficulties in the vasomotor menopausal symptoms and depressed mood relationships: an international pooled analysis of eight studies in the InterLACE consortium, *Psychol Med* 48 (15) (2018) 2550–2561, <https://doi.org/10.1017/S0033291718000168>.
- [27] P.M. Maki, M. Wu, L.H. Rubin, D. Fornelli, L.L. Drogos, S. Geller, L.P. Shulman, S. Banuvar, D.M. Little, R.J. Conant, Hot flashes are associated with altered brain function during a memory task, *Menopause* 27 (3) (2020) 269–277, <https://doi.org/10.1097/GME.0000000000001467>.
- [28] J.E. Blümel, E. Arteaga, J. Parra, C. Monsalve, V. Reyes, M.S. Vallejo, R. Chea, Decision-making for the treatment of climacteric symptoms using the Menopause Rating Scale, *Maturitas* 111 (2018) 15–19, <https://doi.org/10.1016/j.maturitas.2018.02.010>.
- [29] K. Rödstrom, C. Bengtsson, L. Lissner, I. Milsom, V. Sundh, C. Björkelund, A longitudinal study of the treatment of hot flushes: the population study of women in Gothenburg during a quarter of a century, *Menopause* 9 (3) (2002) 156–161, <https://doi.org/10.1097/00042192-200205000-00003>.
- [30] N.E. Avis, S.L. Crawford, G. Greendale, J.T. Bromberger, S.A. Eversson-Rose, E. B. Gold, R. Hess, H. Joffe, H.M. Kravitz, P.G. Tepper, R.C. Thurston, Study of Women's Health Across the Nation, Duration of menopausal vasomotor symptoms over the menopause transition, *JAMA Intern Med* 175 (4) (2015) 531–539, <https://doi.org/10.1001/jamainternmed.2014.8063>.
- [31] E.W. Freeman, M.D. Sammel, R.J. Sanders, Risk of long-term hot flashes after natural menopause: evidence from the Penn Ovarian Aging Study cohort, *Menopause* 21 (9) (2014) 924–932, <https://doi.org/10.1097/GME.0000000000000196>.
- [32] L.F. Wilson, N. Pandeya, J. Byles, G.D. Mishra, Hot flushes and night sweats symptom profiles over a 17-year period in mid-aged women: the role of hysterectomy with ovarian conservation, *Maturitas* 91 (2016) 1–7, <https://doi.org/10.1016/j.maturitas.2016.05.011>.
- [33] The North American Menopause Society (NAMS), The 2020 genitourinary syndrome of menopause position statement of The North American Menopause Society, *Menopause* 27 (9) (2020) 976–992, <https://doi.org/10.1097/GME.0000000000001609>.
- [34] G.D. Mishra, H.F. Chung, N. Pandeya, A.J. Dobson, L. Jones, N.E. Avis, S. L. Crawford, E.B. Gold, D. Brown, L.L. Sievert, E. Brunner, J.E. Cade, V.J. Burley, D. C. Greenwood, G.G. Giles, F. Bruinisma, A. Goodman, K. Hayashi, J.S. Lee, H. Mizunuma, D. Anderson, The InterLACE study: design, data harmonization and characteristics across 20 studies on women's health, *Maturitas* 92 (2016) 176–185, <https://doi.org/10.1016/j.maturitas.2016.07.021>.
- [35] D.J. Anderson, H.F. Chung, C.A. Seib, A.J. Dobson, D. Kuh, E.J. Brunner, S. L. Crawford, N.E. Avis, E.B. Gold, G.A. Greendale, E.S. Mitchell, N.F. Woods, T. Yoshizawa, G.D. Mishra, Obesity, smoking, and risk of vasomotor menopausal symptoms: a pooled analysis of eight cohort studies, *Am. J. Obstet. Gynecol.* 222 (5) (2020), <https://doi.org/10.1016/j.ajog.2019.10.103>, 478.e1–478.e17.
- [36] G. Jack, K. Riach, E. Bariola, Temporality and gendered agency: menopausal subjectivities in Women's, *Work. Hum. Relat.* 72 (1) (2019) 122–143, <https://doi.org/10.1177/0018726718767739>.
- [37] C. Hardy, E. Thorne, A. Griffiths, M.S. Hunter, Work outcomes in midlife women: the impact of menopause, work stress and working environment, *Women's Midlife Health* 4 (2018) 3, <https://doi.org/10.1186/s40695-018-0036-z>.
- [38] M. Hickey, K. Riach, R. Kachouie, G. Jack, No sweat: managing menopausal symptoms at work, *J. Psychosom. Obstet. Gynaecol.* 38 (3) (2017) 202–209, <https://doi.org/10.1080/0167482X.2017.1327520>.
- [39] P. Gartoulla, R.J. Bell, R. Worsley, S.R. Davies, Menopausal vasomotor symptoms are associated with poor self-assessed work ability, *Maturitas* 87 (2016) 33–39, <https://doi.org/10.1016/j.maturitas.2016.02.003>.
- [40] M. Geukes, M.P. van Aalst, S.J.W. Robroek, J.S.E. Laven, H. Oosterhof, The impact of menopause on work ability in women with severe menopausal symptoms, *Maturitas* 90 (2016) 3–8, <https://doi.org/10.1016/j.maturitas.2016.05.001>.
- [41] M. Geukes, J.R. Anema, M.P. van Aalst, R.X. de Menezes, H. Oosterhof, Improvement of menopausal symptoms and the impact on work ability: a retrospective cohort pilot study, *Maturitas* 120 (2019) 23–28, <https://doi.org/10.1016/j.maturitas.2018.10.015>.
- [42] A.O. Olajubu, A.E. Olowokere, D.O. Amuju, T.O. Olajubu, Influence of menopausal symptoms on perceived work ability among women in a Nigerian University, *Clim.: J. Int. Menopause Soc.* 20 (6) (2017) 558–563, <https://doi.org/10.1080/13697137.2017.1373336>.
- [43] E. Humeniuk, I. Bojar, M. Gujski, D. Raczkiwicz, Effect of symptoms of climacteric syndrome, depression and insomnia on self-rated work ability in peri- and post-menopausal women in non-manual employment, *Annals of Agricultural and Environmental Medicine: AAEM* 26 (4) (2019) 600–605, <https://doi.org/10.26444/aaem/112838>.
- [44] K. Hashimoto, M. Yoshida, Y. Nakamura, Y. Takeishi, T. Yoshizawa, Relationship between number of menopausal symptoms and work performance in Japanese

- working women, *Menopause* (2020), <https://doi.org/10.1097/GME.0000000000001698>. Advance online publication. <https://doi.org/10.1097/GME.0000000000001698>.
- [45] A. Griffiths, A.J. MacLennan, J. Hassard, Menopause and work: an electronic survey of employees' attitudes in the UK, *Maturitas* 76 (2) (2013) 155–159, <https://doi.org/10.1016/j.maturitas.2013.07.005>.
- [46] C. Hardy, A. Griffiths, M.S. Hunter, What do working menopausal women want? a qualitative investigation into women's perspectives on employer and line manager support, *Maturitas* 101 (2017) 37–41, <https://doi.org/10.1016/j.maturitas.2017.04>.
- [47] V. Beck, J. Brewis, A. Davies, The remains of the taboo: experiences, attitudes, and knowledge about menopause in the workplace, *Clim.: J. Int. Menopause Soc.* 23 (2) (2020) 158–164, <https://doi.org/10.1080/13697137.2019.1656184>.
- [48] M. Evandrou, J. Falkingham, M. Qin, A. Vlachantoni, Menopausal transition and change in employment: evidence from the National Child Development Study, *Maturitas* 143 (2021) 96–104, <https://doi.org/10.1016/j.maturitas.2020.09.010>.
- [49] J. Brewis, The health and socioeconomic impact on menopausal women of working from home, *Case reports in women's health* 27 (2020) e00229, <https://doi.org/10.1016/j.crwh.2020.e00229>.
- [50] E-WORKLIFE Remote workers and digital self-regulation for effective productivity <http://www.eworklife.co.uk>.
- [51] C. Hardy, M.S. Hunter, A. Griffiths, Menopause and work: an overview of UK guidance, *Occup. Med. (Lond.)* 68 (9) (2018) 580–586, <https://doi.org/10.1093/occmed/kqy134>.
- [52] Chartered Institute of personnel and development https://www.cipd.co.uk/Images/menopause-guide_tcm18-55426.pdf [Accessed 20 April 2021].
- [53] Menopause Information Pack for Organizations (MIPO). <https://www.menopauseatwork.org/free-resources> [Accessed 20 April 2021].
- [54] NHS Confederation. Menopause at work. March 2020 <https://www.nhsemployers.org/-/media/Employers/Publications/Health-and-wellbeing/HSWPG-menopause-at-work-March-2020-FINAL.pdf> [Accessed 20 April 2021].
- [55] Workplace health: management practices. NICE guideline [NG13] Published date: 24 June 2015 Last updated: 24 March 2016 <https://www.nice.org.uk/guidance/ng13> Accessed 20 April 2021].
- [56] Faculty of Occupational Medicine of the Royal College of Physicians. Guidance on menopause and the workplace <http://www.fom.ac.uk/wp-content/uploads/Guidance-on-menopause-and-the-workplace-v6.pdf> Accessed 20 April 2021].
- [57] C. Hardy, A. Griffiths, M.S. Hunter, Development and evaluation of online menopause awareness training for line managers in UK organizations, *Maturitas* 120 (2019) 83–89, <https://doi.org/10.1016/j.maturitas.2018.12.001>.