



## Original article

# Women's expectations for system support for a healthy menopausal transition: A pilot study

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## ABSTRACT

**Background:** This pilot study contributes to the knowledge on healthy menopause by adopting a person-centric, lifelong approach to support a healthy menopausal transition. It focuses on women's expectations of system support for this transition.

**Method:** Twenty-two online in-depth interviews were conducted with women of various ages, experiences, and backgrounds in the United Kingdom, ensuring representation across the menopausal transition journey – before, during and after menopause. The interviews explored perceptions and expectations of healthy menopause and the required support. User journey and systems frameworks guided data collection and analysis. The pilot aimed to verify the feasibility of the developed study approach and protocol.

**Results:** A healthy menopausal transition is seen as preserving essential capacities to maintain normal daily activities despite bodily changes, a crucial aspect of ageing. Participants outlined a journey of awareness, contemplation of lifestyle adjustments, experimentation with new behaviours, and habit formation. These findings underscore the importance of fostering awareness and support for menopausal transition early in life. Participants also stressed the impact of the broader environment across the ageing journey, including education, research, health services, workplace dynamics, built environment, food industry, technology and innovation, media, advertising, and social networks.

**Conclusions:** This work highlights person-centric perceptions of healthy menopause, complementing existing biology-centred perspectives. By introducing a co-creation approach at the system level, it offers opportunities to define holistic support for the menopausal transition. The findings informed a knowledge exchange and ideation workshop with forty relevant system stakeholders to advance solution co-creation.

## 1. Introduction

Menopause, usually between ages of 45 and 55 with an average of 52, as evidenced by studies in high- and middle-income countries, marks the end of a woman's reproductive years [1,2]. During the menopausal transition (MT), women often experience symptoms affecting daily life and physical and mental health, exacerbated by societal taboos and stigma [3,4]. This stigma can disproportionately impact employment rates and earnings, especially for women lacking a college education or working in environments with fewer female co-workers aged 45 or older [5].

Recent research has shifted towards healthy ageing and menopause, aiming to counteract stigma [6, 7]. Healthy menopause is described as “a dynamic state, following the permanent loss of ovarian function,

characterised by self-perceived satisfactory physical, psychological, and social functioning” [7]. Studies primarily focus on the health and disease needs of peri-menopausal or menopausal women [8–13].

However, many women in these studies mention the negative impact of their lack of prior knowledge and expectations on their actual MT experiences [12,13]. Recent research among UK females indicates limited knowledge of menopause among younger women, suggesting the need for early-life support through multifaceted approaches involving workplaces, social media, and public health campaigns [14–16].

These findings underscore that achieving more positive MT experiences is integral to the broader ageing and behaviour change journey through the wider system. Ageing commences early in life, shaped by genetic factors and early-life processes [17–19]. Many early-life

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processes require the introduction and maintenance of healthy habits, including diet, physical activity, sleep quality, and stress management [18,19]. Such requirements call for support involving broader systemic and place-based approaches, as evidenced in the case of obesity [20].

The aim of this pilot study is to evaluate women's experiences and expectations of support for MT and ageing in general. Specifically, the study explores both the feasibility of the person-centred systems approach and the associated methodology.

2. Methods

Twenty-two ( $n = 22$ ) females in the United Kingdom (UK) were interviewed online about their challenges in the ageing journey. Of these, 12 had not reached the MT and 10 declared they were either in the MT phase or had already passed menopause. Interviews were video recorded through Microsoft Teams and lasted from 38 to 60 min. No participant requested to stop the interview, and 2 participants asked to skip a question.

Purposive sampling was employed, following recommendations for qualitative research and inclusion criteria [21,22]. Advertisements were posted on social media (LinkedIn) and through research team, using a snowball sampling technique where participants shared information about the research project with their networks. Inclusion criteria required females aged 18 or older, fluent in English, and residing in the UK, and willing to share perceptions, expectations, and experiences of ageing, particularly concerning the MT. The final sample size was determined based on the exploratory nature of this pilot study, focusing on data richness, saturation, and similar studies [22–24].

The interview guide was based on behavioural journey frameworks [19,25] and system-based approaches to understand factors impacting daily experiences [20]. The interview questions focused on participants' understanding and experiences of menopause and ageing, including questions such as: “What do you understand as healthy menopause? What about positive menopause?” and “Do you think the capacity for adaptation plays a role in the journey? Do you/Would you find it easy or difficult to adapt and navigate those changes?”. Additionally, the questions explored both actual and hypothetical support expectations, with example questions including: “Do you think the society and wider environment could be more supportive and help you and other females develop or maintain positive ageing habits?” and “Imagine a perfect (healthcare, community or even family-based) solution to help you achieve positive and healthy ageing. Could you describe it? What would make it perfect?”. Depending on participants' self-reported reproductive stage, questions were adjusted accordingly. Participants also shared their perceptions of other females (e.g., other family members) undergoing MT. Please see Appendix 1 for the full list of the interview questions.

Before each interview, participants received study information, consent forms, and a link to a questionnaire for demographic data collection (see Table 1 for details). Participants were asked to identify

their reproductive stage by selecting the statement that best described their status from the following categories: 1) “I am in the menopausal transition,” 2) “I am past menopause,” or 3) “I have not reached the menopausal transition.” An “Other” category was provided for those who wished to offer additional explanations.

Interview transcripts were verified and anonymised. Ethical approval (Ref: 24127/002) was obtained from the University Research Ethics Committee. All procedures were performed in compliance with institutional guidelines and GDPR 2018.

Data underwent thematic analysis drawing on themes from behavioural journey [18,25] and system-based approaches [20,26]. All authors independently coded two early transcripts using open coding. They then discussed the initial coding and developed a preliminary coding framework. This process was iterated until data categories were finalised and grouped. Later transcripts were coded using the final framework, with earlier ones re-coded as needed. The final themes are presented in the results subsections. All researchers participated in further data analysis.

3. Results

3.1. Healthy MT as part of the ageing journey

Participants unanimously viewed healthy MT as the preservation of certain capacities essential for maintaining normal daily activities despite bodily changes. They perceived it as an integral part of the broader ageing process. Participant 7 stated, “It’s maintaining and managing healthy ageing process. I just feel it is maintaining good health and not minding the stereotypes that come with menopause.”

Moreover, participants acknowledged the necessity of navigating menopause while contending with additional challenges such as stereotypes and changes in physical appearance. Participant 4 expressed the sentiment saying “Being as healthy as I can during this transition in my life. This is who you are now. Let’s not fight it anymore”, while Participant 8 remarked, “Healthy menopause is being able to at least have the strength to continue doing what you were supposed to do, and also engaging in sexual activities.”

Participants identified specific activities which aided in alleviating symptoms and coping with the process from a mental and emotional standpoint. Participant 19 highlighted that “Sleep is very important to me... trying to not get too anxious and stressed.” She elaborated “Trying to keep myself looking nice and socialising is really, really good for you... I need to be using my brain every day, whether it’s doing a Sudoku or, you know, learning something new, reading the newspaper.”

3.2. Healthy MT as navigating reproductive changes and identity changes

Differences emerged between younger and older participants in their understanding and experiences of menopause. Many younger women admitted to a lack of understanding about menopause and its symptoms. In contrast, women currently undergoing menopause reflected on their preconceptions, often expressing surprise at the severity of symptoms and the emotional toll of the transition.

For younger women, the journey towards menopause can be accompanied by concerns about societal judgments and the stigma surrounding menopause. Participant 1 noted: “But in menopause, as you know, woman cannot conceive anymore. And that’s something that’s really scary. Well, I’ve never heard anything positive about menopause, to be honest”. They feel pressured to meet unrealistic beauty standards perpetuated through social media, which adds to their anxiety about the future. This stage of life, especially for women who do not have children, also involves fears that menopause might mean losing the ability to enter the motherhood stage.

Older women appeared to have a better grasp of the potential effects of menopause, indicating differing levels of awareness and preparedness. Emotional changes could be surprising. As they transition through

Table 1  
Personal characteristics.

N = 22	
Age	
Mean	40.7
Median	39.5
Range	21–68 (47)
Education	
High school graduate	0
Some college	2
Bachelor's degree	6
Postgraduate degree	10
Did not disclose	4
Reproductive stage: self-reported	
I have not reached the menopausal transition	12
I am in the MT	
Or past my menopause	10

menopause, they notice an identity shift. Participant 19 noted: *"You start questioning your own identity and who you are because up until that stage you've been someone's mom and then suddenly, you're entering this middle age"* This period often prompts a re-evaluation of their roles and a search for a new identity beyond motherhood. Some participants confessed to initial fears of cognitive decline, feelings of repression, and doubts about their ability to manage work and daily life, highlighting the impact of menopause on their sense of self.

### 3.3. Healthy MT as part of the behaviour change journey

Participants emphasised the significance of understanding the entire MT process as part of ageing. They described MT as a behavioural journey involving awareness of MT, consideration of lifestyle modifications, experimentation with new behaviours and solutions, and the formation of habits. Participant 23 articulated this by stating, *"Now especially I had started to become more aware of healthy things... I want my boys to be healthy as well, to develop healthy habits."*

Moreover, participants highlighted the evolution of their behaviours, with a shift towards healthier choices. Participant 12 explained, *"Initially for me, it was... trying to manage those symptoms that are perhaps less healthy... I took a conscious decision to try to eat more healthily... and I've also very recently... stopped drinking as well."*

Furthermore, participants acknowledged the role of the broader environment in supporting this behavioural journey. Participant 13 recognised that *"...maybe what makes it healthier could be like environmental factors like your support system and your family support system from I guess the healthcare system."*

### 3.4. The environment and support avenues

Participants commented on the importance of the wider environment throughout the ageing journey.

#### 3.4.1. Education and research

Females highlighted the lack of knowledge and awareness surrounding the MT. Many stressed the necessity for education on the subject. Participant 19 expressed this sentiment, stating, *"I wonder if it needs to be touched on in schools... I think young people need to know about it, but not just females. Men need to know. Young men need to know about it as well."* Similarly, participant 5 mentioned the importance of educating men on the subject *"I think it's just that education, it's that it's educating men and women and to recognise the symptoms and then to be able to do something about it more quickly."* Others expressed similar thoughts sharing the importance of their husbands, sons, male managers and male co-workers' awareness and support.

Moreover, some participants advocated for increased research and advancements to differentiate menopause symptoms from those of ageing and other diseases. They also called for enhancements in trials related to females' health and urged universities to take a more proactive stance in addressing existing barriers faced by females. Participant 5 stated, *"It's the medical profession that should be giving the advice... Should universities and researchers be able to do more? Should we have?... it's about supporting people to go through that process."* Participant 21 highlighted *"The government and the university, because they, uh, they're authorities, they have, they know what is right to tell people."*

#### 3.4.2. Health services

Study participants shared varied experiences when seeking advice from healthcare providers about their perimenopause. Some described it as a matter of "luck" whether they encountered an informed and attentive GP. Additionally, females noted challenges in accessing treatment, often relying excessively on HRT prescriptions while holistic approaches were neglected. Emotional changes were reported to be insufficiently supported within the healthcare system. Participant 12 stated, *"A solution... I think it would be about having a health care system*

*that's accessible that will support me in managing whatever physical, emotional challenges that I might encounter so that I feel listened to..."*

Participants expressed several needs from health services, such as easier access to medical consultations, longer and more frequent appointments. Participant 24 mentioned that she needs from the health system *"Access to mental wellbeing. Nurse. Coach, therapist to work through all the other things that go with menopause and ageing. Holistic care"*. Many women on HRT noted a stark contrast between the National Health Service (NHS) and private clinic services, with private clinics offering more time, thorough examinations, and more effective HRT prescriptions. Participant 20 shared *"Some doctors still need to be educated in kind of positive ageing and the menopause"*.

#### 3.4.3. Workplace

Females expressed mixed feelings about workplace policies regarding the MT. While acknowledging the need for support, many voiced concerns about potential labelling and discrimination. Participant 4 stated, *"You can push it the other way and then it becomes almost a disability, and I don't want it to be seen as that. So, it's striking a balance between the two."* This concern could reinforce negative stereotypes and worsen gender disparities. Moreover, females currently navigating the MT expressed discomfort in disclosing their status, particularly to male or younger colleagues. Participant 2 highlighted this issue, stating, *"It's difficult ... especially where managers are men."*

#### 3.4.4. Built environment and food industry

Elements of the built environment such as neighbourhood safety, noise levels, lighting, and green areas were identified as factors influencing females' wellbeing. Participant 5 stated, *"So we have a caravan and we use that quite a lot. Well, a lot and it's by the sea and it's near the coastal path. So I love that idea. I just feel my stress levels change... The other thing I find is that I don't particularly like being in crowded places, I don't like the business and the noise."* Females noted that high noise levels, inadequate lighting, and a lack of green spaces had adverse effects on their health, especially impacting their sense of safety when walking in their neighbourhoods, particularly during months with fewer daylight hours.

Additionally, access to healthy food was cited as another factor affecting wellbeing. Participant 16 remarked, *"Maybe the water you drink? And if you have access to fresh food and yeah, the chemicals that are used in food as well, I feel like all of those preservatives, all of that can contribute..."*

#### 3.4.5. Technology and innovation

Most females utilised online resources to access health information, prioritising sources that they considered trustworthy and easy to read, as Participant 15 mentioned *"something that is accessible and easy to read"*. Females of all ages were open to exploring digital avenues with support to navigate this stage. Several suggestions of the benefits they would expect from these sorts of avenues included: reliable health advice especially around symptoms and treatment, advice on healthy eating, physical activity and sleep, community access, signposting to local services, and anonymous chatrooms.

Participant 18 stated *"Trusted advice and like a sense of community and somewhere you can ask questions."* Participant 3 said, *"I think like I said it navigation to proper evidence-based. Umm...solutions, you know, interventions"*. Participant 8 added *"...should be a platform where people come out and also do some exercises for themselves. You know, during these programs they can also do other things like learn what to eat."*

Participant 4 commented *"You could signpost people to local community facilities if there are any. In an ideal world giving you know, menopausal women, some help with exercise, giving them free exercise classes or something to get them out the house or you know meetup or something...Because some people might not have any friends at all. And the fact that they can go out once every Saturday morning and have coffee with somebody might be a lifesaver"*.

### 3.4.6. Media and advertising

Participants commonly discussed the reinforcement of stereotypes when referencing social media. Females reported experiencing pressure from unrealistic standards and societal expectations regarding appearance and lifestyle. Participant 4 highlighted “*I think of ageing as quite a respectful thing... But I do think the media doesn't portray it in that way, especially social media around females...*”

Participants suggested that media and advertising could promote a healthier view of ageing by showcasing positive and realistic content. They emphasised the need for role models who support realistic processes of menopausal transition.

### 3.4.7. Social network

Females unanimously emphasised the significance of having a strong social network, community, and family support. They expressed feeling reassured by friends undergoing similar experiences and valued the advice of older females. Participant 16 highlighted the importance of a supportive community, stating, “*Umm, you don't overstress yourself, so maybe a community where you are surrounded by positivity or people who understand the symptoms of menopause.*”

## 4. Discussion

This pilot study demonstrates the practicality and effectiveness of the person-centric systems approach in capturing diverse experiences and expectations related to the MT. It enriches the current literature [6,7,9] on healthy menopause by offering deeper insights into person-centred experiences and expectations, as well as expected sources of system support. These findings contribute to existing knowledge on physical, psychological, and social functioning while highlighting the limitations of prevailing conceptualisations and methodologies. Unlike traditional approaches that often focus on a health-disease continuum [6,7], our study emphasises the behavioural, cognitive, and emotional processes that influence the daily journeys of females navigating menopause and ageing. Building upon these insights, we propose a complementary definition of healthy MT:

*‘Healthy MT is part of the wider ageing process that necessitates adaptation and behavioural changes while enabling the preservation of normal daily experiences. It involves maintaining physical, mental, and emotional wellbeing through awareness of menopausal changes, the acknowledgement and appreciation of strategies to manage symptoms, and the implementation of lifestyle adaptations, and natural and medical remedies. This process encompasses holistic support for physical, mental, and social wellbeing, challenging stereotypes, promoting realistic views of ageing, and creating supportive environments to address the diverse needs of females during this life stage.’*

This complementary definition facilitates the development of system solutions to support the ageing process, addressing calls for such interventions [11]. By acknowledging the individual journey stage of MT, whether it necessitates awareness building, information seeking, specific treatment approaches, or habit enforcement, a tailored set of support solutions can be made accessible to females through the joint efforts of healthcare providers, workplaces, technology developers, or support networks such as family and friends. Similar targeted approaches have been effectively utilised in service design contexts, tailoring services to diverse consumer or patient journey stages [25,27].

Adopting a wider systems approach [20,28] to the challenge of MT could facilitate collaborative efforts among the identified system stakeholders. Such approaches could support the creation of a local ecosystem where various stakeholders (e.g., employers, healthcare providers, technology providers, schools, universities, private companies, and third-sector organisations) unite their efforts to support different stages of this journey [29]. This pilot study laid the groundwork for a subsequent knowledge exchange and ideation workshop that convened a diverse array of stakeholders ( $n = 40$ ), including females of

different age. The knowledge exchange activities validated the initial findings outlined in this article and facilitated the collaborative generation of diverse ideas and potential solutions by stakeholders [30].

An implication of the complementary definition, as highlighted by many participants, is that awareness of menopause and healthy habits supporting MT in later life need to begin earlier. This aligns with research [15,18,19], which argues that various factors and experiences throughout an individual's life influence their health outcomes and wellbeing. Health and disease are shaped by a complex interplay of social, economic, environmental, and biological factors across the life-span. This suggests that the most impactful changes for healthy MT may occur earlier in life, potentially in the workplace, as indicated by some participants. Existing studies suggest a positive impact of establishing menopause workplace policies. Workplace coaching increases confidence and coping strategies [31], educational interventions enhance self-efficacy in managing symptoms [32], and online training reduce stigma [33]. Integrating menopause education into wellbeing strategies can promote inclusivity and involvement of male colleagues, enhancing organisational culture [34].

While some questions in the study touched upon the meaning of positive menopause, the responses mainly linked this concept to healthy MT and were not conclusive enough to be discussed in depth. However, one recurring theme was that healthy menopause is something females should embrace, viewing it as a growth opportunity to start a new and exciting chapter in their lives. This presents an interesting opportunity to consider support interventions that could foster a growth mindset in individuals and promote healthy ageing and MT [35,36].

Like many studies, this pilot study has limitations. It faced challenges such as a small sample size, which, while limiting the generalisability of findings, is suitable for the exploratory stage of research. A portion of the study population was well-educated, offering valuable insights into system support that could be relevant to a broader range of women, given their greater awareness and use of various support tools. However, our sample also includes individuals with less educational background, providing diverse perspectives. Another limitation is reliance on self-reported demographic data, including the reproductive stage, without medical validation. Despite these constraints, this pilot study showcased notable strengths. These included the incorporation of women from diverse backgrounds, the engagement of a multidisciplinary research team enabling comprehensive analysis from various viewpoints while maintaining methodological rigour, and the utilisation of a co-creation approach.

## Contributors

Marzena Nieroda secured funding for the project, supervised the research, including conception and design of the study, and was involved in data collection, analysis and writing of the manuscript.

Dania Posso was involved in the conception and design of the study, data collection, analysis and writing up of the manuscript.

Abdul Seckam supported the funding bid for the project, was involved in the conception and design of the study, supported data collection and analysis and revised the intellectual content of the manuscript draft. All authors saw and approved the final version and no other person made a substantial contribution to the paper.

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## Ethical approval

Ethical approval (Ref: 24127/002) was obtained from the University Research Ethics Committee, University College London.

## Provenance and peer review

This article was not commissioned and was externally peer reviewed.

## Data sharing and collaboration

There are no linked research data sets for this paper. Anonymised research data can be available upon request, with the appropriate considerations for ethical guidelines.

## Declaration of Generative AI and AI-assisted technologies in the writing process

During the preparation of this work, the authors used Chat GPT 3.5 to improve structural and linguistic feedback (paraphrasing and language polishing). After using this tool/service, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

## Declaration of competing interest

The authors declare that they have no competing interest.

## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.maturitas.2024.108133>.

## References

- [1] S.S. Faubion, F. Enders, M.S. Hedges, R. Chaudhry, J.M. Kling, C.L. Shufelt, M. Saadedine, K. Mara, J.M. Griffin, E. Kapoor, Impact of menopause symptoms on women in the workplace, *Mayo Clin. Proc.* 98 (6) (2023) 833–845, <https://doi.org/10.1016/j.mayocp.2023.02.025>.
- [2] E.B. Gold, S.L. Crawford, N.E. Avis, C.J. Crandall, K.A. Matthews, L.E. Waetjen, J. S. Lee, R. Thurston, M. Vuga, S.D. Harlow, Factors related to age at natural menopause: longitudinal analyses from SWAN, *Am. J. Epidemiol.* 178 (1) (2013) 70–83, <https://doi.org/10.1093/aje/kws421>.
- [3] 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>.
- [4] Q. Li, J. Gu, J. Huang, P. Zhao, C. Luo, “They see me as mentally ill”: the stigmatization experiences of Chinese menopausal women in the family, *BMC Womens Health* 23 (1) (2023) 185, <https://doi.org/10.1186/s12905-023-02350-y>.
- [5] Conti G., Ginja R., Persson P. and Willage B. (2024). “The menopause “penalty”, London: Institute for Fiscal Studies. [Preprint]. Available at: [https://ifs.org.uk/sites/default/files/2024-03/WP202405-The-menopause-penalty\\_0.pdf](https://ifs.org.uk/sites/default/files/2024-03/WP202405-The-menopause-penalty_0.pdf). doi: <https://doi.org/10.1920/wp.ifs.2024.0524> (Accessed: 30 March 2024).
- [6] P. Stute, I. Ceausu, H. Depypere, I. Lambrinoudaki, A. Mueck, F.R. Pérez-López, Y. T. van der Schouw, L.M. Senturk, T. Simoncini, J.C. Stevenson, M. Rees, A model of care for healthy menopause and ageing: EMAS position statement, *Maturitas* 92 (2016) 1–6, <https://doi.org/10.1016/j.maturitas.2016.06.018>.
- [7] Jaspers, L., Daan, N. M. P., van Dijk, G. M., Gazibara, T., Muka, T., Wen, K.-x., Meun, C., Zillikens, M. C., Roeters van Lennep, J. E., Roos-Hesselink, J. W., Laan, E., Rees, M., Laven, J. S. E., Franco, O. H. and Kavousi, M. (2015). ‘Health in middle-aged and elderly women: a conceptual framework for healthy menopause’, *Maturitas*, 81(1), pp. 93–98. doi: <https://doi.org/10.1016/j.maturitas.2015.02.010>.
- [8] S.R. El Khoudary, G. Greendale, S.L. Crawford, N.E. Avis, M.M. Brooks, R. C. Thurston, C. Karvonen-Gutierrez, L.E. Waetjen, K. Matthews, The menopause transition and women’s health at midlife: a progress report from the study of Women’s health across the nation (SWAN), *Menopause* 26 (10) (2019) 1213–1227, <https://doi.org/10.1097/GME.0000000000001424>.
- [9] J. Cooper, Examining factors that influence a woman’s search for information about menopause using the socio-ecological model of health promotion, *Maturitas* 116 (2018) 73–78, <https://doi.org/10.1016/j.maturitas.2018.07.013>.
- [10] P. Zou, J. Shao, Y. Luo, Y. Huang, H. Zhang, S. Sidani, Menopausal transition experiences and management strategies of Chinese immigrant women: a scoping review, *Menopause* 27 (12) (2020) 1434–1443, <https://doi.org/10.1097/GME.0000000000001623>.
- [11] C.L. Kracht, J.S. Romain, J.C. Hardee, N. Santoro, L.M. Redman, K.L. Marlatt, “It just seems like people are talking about menopause, but nobody has a solution”: a qualitative exploration of menopause experiences and preferences for weight management among black women, *Maturitas* 157 (2022) 16–26, <https://doi.org/10.1016/j.maturitas.2021.11.005>.
- [12] S.V. Doubova, C. Infante-Castañeda, I. Martinez-Vega, R. Pérez-Cuevas, Toward healthy aging through empowering self-care during the climacteric stage, *Climacteric : The Journal of the International Menopause Society* 15 (6) (2012) 563–572, <https://doi.org/10.3109/13697137.2011.635824>.
- [13] D.K.A. Stanzel, D.K. Hammarberg, P.J. Fisher, Challenges in menopausal care of immigrant women, *Maturitas* 150 (2021) 49–60, <https://doi.org/10.1016/j.maturitas.2021.05.008>.
- [14] C. Munn, L. Vaughan, V. Talaulikar, M.C. Davies, J.C. Harper, Menopause knowledge and education in women under 40: results from an online survey, *Womens Health* 18 (2022) 17455057221139660, <https://doi.org/10.1177/17455057221139660>.
- [15] B. Tariq, S. Phillips, R. Biswakarma, V. Talaulikar, J.C. Harper, Women’s knowledge and attitudes to the menopause: a comparison of women over 40 who were in the perimenopause, post menopause and those not in the peri or post menopause, *BMC Womens Health* 23 (1) (2023) 460, <https://doi.org/10.1186/s12905-023-02424-x>.
- [16] N. Safwan, M. Saadedine, C.L. Shufelt, E. Kapoor, J.M. Kling, R. Chaudhry, S. S. Faubion, Menopause in the workplace: challenges, impact, and next steps, *Maturitas* 185 (2024) 107983, <https://doi.org/10.1016/j.maturitas.2024.107983>.
- [17] C. Menni, G. Kastanmüller, A.K. Petersen, J.T. Bell, M. Psatha, P.C. Tsai, C. Gieger, H. Schulz, I. Erte, S. John, M.J. Brose, S.G. Wilson, L. Tsaprouni, E.M. Lim, B. Stuckey, P. Deloukas, R. Mohny, K. Suhre, T.D. Spector, A.M. Valdes, Metabolomic markers reveal novel pathways of ageing and early development in human populations, *Int. J. Epidemiol.* 42 (4) (2013) 1111–1119, <https://doi.org/10.1093/ije/dyt094>.
- [18] N.M.P. Daan, B.C.J.M. Fauser, Menopause prediction and potential implications, *Maturitas* 82 (3) (2015) 257–265, <https://doi.org/10.1016/j.maturitas.2015.07.019>.
- [19] M.A. Hanson, C. Cooper, A. Aihie Sayer, R.J. Eendebak, G.F. Clough, J.R. Beard, Developmental aspects of a life course approach to healthy ageing, *J. Physiol.* 594 (8) (2016) 2147–2160, <https://doi.org/10.1113/JP270579>.
- [20] Public Health England (2019). *Whole Systems Approach to Obesity and Promoting a Healthy Weight* London: PHE publications. GW-534. Available at: <https://www.gov.uk/government/publications/whole-systems-approach-to-obesity> (Accessed: 23 March 2024).
- [21] S.J. Stratton, Population research: convenience sampling strategies, *Prehosp. Disaster Med.* 36 (4) (2021) 373–374, <https://doi.org/10.1017/S1049023X21000649>.
- [22] K. Vasileiou, J. Barnett, S. Thorpe, T. Young, Characterising and justifying sample size sufficiency in interview-based studies: systematic analysis of qualitative health research over a 15-year period, *BMC Med. Res. Methodol.* 18 (1) (2018) 148, <https://doi.org/10.1186/s12874-018-0594-7>.
- [23] M. Sandelowski, One is the liveliest number: the case orientation of qualitative research, *Research in Nursing & Health* 19 (6) (1996) 525–529, [https://doi.org/10.1002/\(SICI\)1098-240X\(199612\)19:6<525::AID-NUR8>3.0.CO;2-Q](https://doi.org/10.1002/(SICI)1098-240X(199612)19:6<525::AID-NUR8>3.0.CO;2-Q).
- [24] L. Hvas, Menopausal women’s positive experience of growing older, *Maturitas* 54 (3) (2016) 245–251, <https://doi.org/10.1016/j.maturitas.2005.11.006>.
- [25] A.S. Gallan, J.R. McColl-Kennedy, T. Barakshina, B. Figueiredo, J.G. Jefferies, J. Gollhofer, S. Hibbert, N. Luca, S. Roy, J. Spanjol, H. Winkhofer, Transforming community well-being through patients’ lived experiences, *J. Bus. Res.* 100 (2019) 376–391, <https://doi.org/10.1016/j.jbusres.2018.12.029>.
- [26] V. Braun, V. Clarke, Using thematic analysis in psychology, *Qual. Res. Psychol.* 3 (2) (2006) 77–101, <https://doi.org/10.1191/1478088706qp0630a>.
- [27] L.G. Zomerdijs, C.A. Voss, Service design for experience-centric services, *J. Serv. Res.* 13 (1) (2010) 67–82, <https://doi.org/10.1177/10946705093519>.
- [28] J. McGlashan, K. de la Haye, P. Wang, S. Allender, Collaboration in complex systems: multilevel network analysis for community-based obesity prevention interventions, *Sci. Rep.* 9 (1) (2019) 12599, <https://doi.org/10.1038/s41598-019-47759-4>.
- [29] H. Perks, C. Kowalkowski, L. Witell, A. Gustafsson, Network orchestration for value platform development, *Ind. Mark. Manag.* 67 (2017) 106–121, <https://doi.org/10.1016/j.indmarman.2017.08.002>.
- [30] M. Nieroda, A. Seckam, D. Posso, R. Rodriguez-Fernandez, O. Allen, A. Couthino, T. Anagnostopoulou, N. Keay, J. Harper, Act 9: Towards positive ageing: Collaboratively removing barriers for sustainable person-centred system support, in: Dr Nicky Keay (Ed.), *Myths of Menopause*, Sequoia Books UK, 2024.
- [31] S. Dunn, The experience of workplace coaching for menopausal women: a descriptive phenomenological study, *International Journal of Evidence Based Coaching and Mentoring* S16 (2022) 97–108, <https://doi.org/10.24384/5jaz-sf55>.
- [32] M. Geukes, J.R. Anema, M. Vermeer, M.P. van Aalst, H. Oosterhof, Evaluation of a workplace educational intervention on menopause: a quasi-experimental study, *Maturitas* 174 (2023) 48–56, <https://doi.org/10.1016/j.maturitas.2023.05.005>.
- [33] 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.2018.12.0>.
- [34] R. Targett, V. Beck, Menopause as a well-being strategy: organizational effectiveness, gendered ageism and racism, *Post Reprod. Health* 28 (1) (2022) 23–27, <https://doi.org/10.1177/20533691211060098> [35] Dweck, C. S. (2000).

Self-theories: Their role in motivation, personality, and development '. Philadelphia, PA: Psychology Press).

- [35] C.S. Dweck, *Self-Theories: Their Role in Motivation, Personality, and Development*, Psychology Press, Philadelphia, PA, 2000.

- [36] P.A. Haslin, J.L. Burnette, N.G. Ryu, Does a growth mindset enable successful aging? *Work Aging Retire.* 7 (2) (2021) 79–89, <https://doi.org/10.1093/workar/waaa029>.