

A bio-psycho-social investigation of menopause transition and workplace well-being in the UK police force

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Abstract

Using a bio-psycho-social approach, we examine the implications of menopause transition for workplace well-being. The study draws on a survey of 1684 women in three UK police forces, where growing numbers work during menopause transition within what has been termed a hyper masculine culture. We evidence not only that menopause symptoms can negatively impact employee well-being, but also demonstrate the importance of attitudes and workplace context within this. We extend theory first in integrating bio-psycho-social and well-being frameworks to offer more nuanced understanding. Second, in focusing on older women in menopause transition we extend understanding of gendered ageing. Practically, we evidence the need for human resource practices that go beyond the typical focus on symptoms to also address attitudes towards menopause and develop supportive and inclusive workplaces. We identify support mechanisms that serve to protect women's well-being and retain them in the workplace during menopause transition.

Key words: Menopause transition, bio-psycho-social, well-being, gendered ageing, police service

Introduction

Menopause transition is an important topic: demographic change is extending working lives and, coupled with reductions in pension values and the abolition of default retirement ages in many countries, means that ever-growing proportions of workforces are older in the Global North (Kooij et al., 2015). In the UK, for example, more than 10 million workers, over a third of the workforce, are

aged 50 or over, an increase of 15% since 1984 (GOV.UK, 2021). This pattern is even more notable for older women, where since 2000, the proportion of women working aged 50-64 has grown by 15%, compared to 8% for men (CfAB, 2020). This means that many more women are working through menopause transition, which may create particular challenges (Grandey et al., 2020). Yet older workers are typically presented as an homogeneous group, with little recognition of their diversity of need and the age discourse is typically de-gendered (Authors). Here, we argue that older women are a sub-group that merits particular consideration.

Gendered ageing, that is, the intersection of age and gender (Riach et al., 2015), in the workplace is an important topic for exploration and menopause transition provides a useful mechanism to do this. It is a phenomenon that affects (mainly) older women and is neglected in current work and employment research (Grandey et al., 2020). While every woman's menopause is different (Throsby and Roberts, 2024), and some do not experience difficulties with symptoms, up to three quarters experience some difficulty and one quarter substantial difficulty and these experiences are likely to impact in the workplace (CIPD, 2023). Two-thirds of women report it has a moderate to severe impact on their working lives, 30% that it negatively impacts performance (High and Marcellino, 1994) and each year approaching 400,000 women quit/intend to quit their roles or fear their competence will come under question (Steffan, 2021). Although a robust evidence base is lacking, menopause transition might then be expected to have negative consequences employee well-being (Griffiths et al., 2010).

This is important given the increased attention that workplace well-being is receiving, amid recognition of its importance for both individual and workplace outcomes (see, for example, a special issue of this journal, Kowalski and Loretto, 2017). At the individual level, improved well-being is associated with improved performance and reduced absence (Bahn, 2015), leading to improved workplace outcomes such as reduced labour turnover that delivers enhanced organisational performance (Peccei and van De Voorde 2019). Yet well-being research tends to consider workers as

an homogenous group, which risks losing the nuances of specific groups. Here, we explore workplace well-being of older women, an important workforce group as we note above, during a particular life stage, menopause transition. We adopt a bio-psycho-social approach which recognises that there is no universal menopause experience and allows for both similarities and differences to be identified (Throsby and Roberts, 2024). We do this in the context of the UK police service, where there are growing numbers of older women working within what has been termed a 'hyper masculine' culture (Dick, 2009).

We make an empirical contribution in building an evidence base on menopause transition/well-being relationships. While this is in the police service, our findings have wider relevance as similar patterns are likely to be seen across other sectors, particularly where they are male-dominated (Kirton et al., 2016). We contribute theoretically in two ways. First, we bring together bio-psycho-social and well-being frameworks to evidence the complexity of influences upon workplace well-being. This offers a more nuanced understanding of well-being than existing analyses which typically consider employees as an homogenous group. Second, in addressing this homogeneity issue and examining a specific, and neglected, group, older women (Steffan and Potocnik, 2022), we offer insight into the under-researched area of gendered ageing (Riach et al., 2015, Thomas et al., 2014). Finally, we contribute to practice in providing guidance on HR practices that support the well-being of older women in menopause transition and thus facilitate their performance and retention.

The paper proceeds as follows. First, we review literature on menopause transition and well-being before presenting methods, findings and discussion. We conclude with consideration of our contributions and further avenues for research.

Menopause transition and workplace well-being

Here, we first review what is known about menopause transition in the workplace, situating this within a bio-psycho-social framework (Authors)(Throsby and Roberts, 2024), then conceptualise work-place well-being and how it might be impacted by transition.

Menopause transition in the workplace

Menopause refers to the ceasing of menstruation and is determined by the point at which a woman has not had a period for 12 months, typically aged 51-52. Menopause transition, or perimenopause, describes the time pre- and post-menopause when many women experience symptoms such as hot flushes, night sweats, and disturbed sleep. While menopause transition is typically positioned as a 'women's issue' (Kirton et al., 2016), it has significant workplace ramifications (Authors). However, with a few notable exceptions, discussed further below (Jack et al., 2019, Butler, 2019, Grandey et al., 2020, Steffan and Potocnik, 2022), research on menopause transition sits mainly outside of work and employment disciplines, e.g. in medicine, occupational health and sociology (Griffiths et al., 2010, Hardy et al., 2018, Hyde et al., 2010). This results from a tendency to adopt a bio-medical perspective with a narrow focus on the symptoms of menopause transition (Brewis et al., 2017). Yet women experience these symptoms differently (Throsby and Roberts, 2024), which should be understood within the wider context of their lives, both psychological and social (Authors). Reflecting this, we follow others in adopting a bio-psycho-social framework (Grandey et al., 2020, Throsby and Roberts, 2024) that, alongside biological (physical) symptoms includes psychological factors (e.g. attitudes) and social factors (e.g. workplace context) within experiences of menopause transition (Ballard et al., 2009, Throsby and Roberts, 2024).

A bio-medical model emphasises symptoms (Hunter and Smith, 2017), which are manifold and include hot flushes, night sweats and heavy or irregular periods, together with less-well

recognised symptoms such as poor concentration and memory (Brewis et al., 2017). Some symptoms, such as hot flushes and memory lapses, have been identified as problematic at work (Butler, 2019) and research points to ways in which these relationships are bi-directional (Authors), that is, they can be ameliorated or exacerbated by work (Jack et al., 2019). Current human resource (HR) practice draws largely on a bio-medical perspective and focuses on support via physical aspects of the workplace e.g. access to well-ventilated spaces, cold water and toilets (Brewis et al., 2017).

Psycho-social aspects of menopause transition remain poorly understood. Psychological factors include attitudes towards transition (Hunter and Smith, 2017). For example, women are aware menopause is negatively viewed by many colleagues (Griffiths et al., 2013) and may conceal their menopausal status at work due to embarrassment (Griffiths et al., 2010). They may also fear that transition will disadvantage women (High and Marcellino, 1994), creating negative responses (Authors) and stigma (Jack et al., 2019). Important attitudes such as confidence and self-efficacy can thus be negatively impacted (Grandey et al., 2020). It is important, however, not to assume menopause transition has wholly negative consequences. Indeed, recent work suggests that some women may experience this life stage as a positive (Butler, 2019) and that such attitudes toward ageing and menopause can ameliorate symptoms (Grandey et al., 2020). In the workplace, older women may feel more able to address ageism and sexism (Jack et al., 2019), those in employment tend to have fewer symptoms than those not (Jack et al., 2016) and some may even access new work opportunities (Grandey et al., 2020). Attitudes are thus important influences on how menopause symptoms are experienced (Authors). However, there is limited understanding of this in the workplace.

In wider society, gendered and age-based norms operate to the detriment of older women, especially for those in menopause transition (Jack et al., 2019). Social factors more specific to employment include work settings and roles (Hunter and Smith, 2017), and Grandey et al.'s (2020) review suggests that male-dominated contexts are often inhospitable places for menopausal

women. Most research to date, however, focuses on professional women or those working in admin/clerical roles (Jack et al., 2019, Butler, 2019, Grandey et al., 2020, Steffan and Potocnik, 2022). We know little about other types of roles or workplaces, e.g. shift workers, requirements to wear uniforms (Authors). Our research, situated within the UK police service, is thus important. This is a highly masculine context (Westmarland, 2017) that has been termed hyper-masculine (Yates et al., 2018). Women are routinely harassed and excluded (Kringen and Novich, 2018), bodily conformity is demanded and there is little tolerance of workers that are not masculine, fit and strong (Yates et al., 2018). A hostile environment creates an important role for line managers (Heffernan and Dundon, 2016), but their willingness or capacity to offer support has been called into question. For example, managers may not view menopause as a legitimate workplace concern and may therefore treat it as abnormal and disruptive rather than a routine aspect of employment (Jack et al., 2016). They may also prefer to avoid discussing sensitive topics (Heffernan and Dundon, 2016), which often includes menopause. Yet lack of manager support can exacerbate symptoms (Jack et al., 2019) and unsupportive line managers create reluctance to disclose menopause status, resulting in women not accessing required interventions (Grandey et al., 2020).

In summary, reliance on a medical model of menopause tends to embed negative attitudes. In wider society, it marks the end of a woman's reproductive life; in the workplace, often the end of her productive capacity, despite potentially having many years of employment left (Grandey et al., 2020). Yet women's experiences of menopause transition vary widely and a bio-psycho-social approach can develop understanding of this (Hunter and Smith, 2017) and identify commonalities and differences (Throsby and Roberts, 2024). There is, however, limited research within a bio-psycho-social framework and, in addressing this, we ask the following research questions:

RQ1: How are menopause transition symptoms experienced in the workplace?

RQ2: How do women's attitudes affect experiences of menopause transition?

RQ3: How does workplace context affect experiences of menopause transition?

Transition and workplace well-being

Menopause transition may have implications for workplace well-being but, amidst a general gap in research on how it is related to work outcomes (Grandey et al., 2020), there is no current exploration of this. It is an important gap. Contemporary HR research affords increased recognition to workplace well-being (Peccei and van De Voorde 2019), not least because of its impact on individual and organisational outcomes (Cao et al., 2023). Indeed, the topic has been extensively covered in this journal (Coyne et al., 2017, Kowalski and Loretto, 2017, Guerci et al., 2022, Veld and Alfes, 2017). In the workplace, well-being is defined as the overall quality of an employee's experience and functioning (Warr, 2007), albeit there is no widely accepted approach to investigating it (Imhof and Andresen, 2018). Workplace well-being is often conceived of as simply psychological and this is its most commonly studied facet (Peccei et al., 2013). However, the need for a multi-faceted, rather than narrow, definition has been argued (Hauff et al., 2022, Guerci et al., 2022) and here, we draw on Peccei and Van de Voorde's (2019) definition of workplace well-being as comprising both happiness and health (see also Veld and Alfes, 2017). As is common, we conceptualise happiness via job satisfaction (Imhof and Andresen, 2018), that is, a subjective positive state that arises from a worker's perception of work itself and the work situation (Hauff et al., 2022). We combine this with mental health, understood here as either positive, for example, being confident or feeling valued, or negative, for example psychological strain or anxiety (as per García-Juan et al., 2023, Coyne et al., 2017).

Our study is important in two ways. First, existing well-being research tends to consider workers as an homogenous group with only a few notable exceptions e.g. older workers (Kooij et al., 2015), temporary workers (Imhof and Andresen, 2018, Bahn, 2015), non-profit (Baluch, 2017) and female workers (Huang and Gamble, 2015). Addressing this, we examine a neglected group, older women (Steffan and Potocnik, 2022). This is an important omission given, as noted above, their

growing workplace representation and we seek to explore the intersection of age and gender through examining menopause transition and its implications for workplace well-being. Second, we are the first to examine the menopause transition/well-being relationship. While academic evidence on the impact of menopause transition is sparse, some research demonstrates negative associations with other workplace outcomes, for example, retention and performance (Steffan and Potocnik, 2022, Grandey et al., 2020, Griffiths et al., 2013). Hardy et al. (2018) further suggest that hot flushes are related to intention to exit the labour market, though not necessarily associated with outcomes such as job performance. Its impact on well-being is, however, an important outcome and absent from current research.

Here, we draw on wider research to outline the possible impact of menopause transition on well-being, again through a bio-psycho-social lens. From a biological perspective, we might expect the implications to be substantial. Each year, menopause symptoms are responsible for the loss of over 14 million working days (ONS, 2018), and around a quarter of those with serious symptoms have left jobs (Powell, 2021). As severe physical symptoms are associated with reduced performance and retention (Steffan and Potocnik, 2022), we might also expect them to negatively impact well-being. But these relationships ignore the influence of psychological and social factors. We know that attitudes generally influence well-being (Emre and De Spiegeleare, 2021). For example, self-efficacy and social support are positively associated with well-being (Straus et al., 2023), although there is no evidence specific to menopause transition. Grandey et al. (2020), however, found that negative attitudes towards menopause transition were associated with poorer performance. Attitudes are thus likely to influence how menopause transition impacts well-being. Similarly social factors are likely to be important. Taking gender, evidence suggests that women have higher levels of job satisfaction than men (Huang and Gamble, 2015) and experience strain differently to men (Huang et al., 2019). Older workers also have higher job satisfaction than younger workers (Kooij et al., 2015). However, there is an again absence of research on the intersection of age and gender for well-being, particularly in respect of menopause transition. This absence of evidence is reflected in workplace

settings, though we know that social support is positively associated with well-being (Straus et al., 2023). Menopause transition is also negatively with performance, although social support can offset this (Steffan and Potocnik, 2022). Inclusive climates also build well-being (Cao et al., 2023), but this is likely to be problematic in relation to menopause transition in a highly masculine contexts, such as the police service (Westmarland, 2017). Stigmatisation, again likely in a police service context when considering menopause transition, also reduces well-being, (Cheng et al., 2023). Given the lacuna in relevant research, these are important topics to explore.

In summary, drawing on a bio-medical model, we might expect that more severe experience of symptoms would have a negative impact on well-being. However, we argue that a more nuanced approach is needed that also considers the influence of psychological and social factors to better understand the menopause transition/well-being relationship. Accordingly, we address the following research questions:

RQ4: How do experiences of menopause symptoms impact job satisfaction and mental health?

RQ5: How do attitudes towards menopause affect relationships between menopause transition, job satisfaction and mental health

RQ6: How does workplace context affect relationships between menopause transition, job satisfaction and mental health?

Methods

Data were gathered via an online survey circulated to all workers self-identifying as womenⁱ in three large urban UK police forces (Table 1), referred to as A, B and C to maintain anonymity. The survey collected quantitative and qualitative data, using both closed and open questions. Women aged 40-plus, and those self-identifying as in early menopause transition, were invited to participate.

Menopausal status was determined by questions on regularity and frequency of menstruation. The sample comprised those who were pre-, peri- and post-menopausal, allowing for cross-group comparison. The mean age of the sample was 50. For those identifying as peri-menopause the mean age was 48 and for identifying as post-menopause the mean age was 52.5

Table 1 here

Quantitative analysis

Quantitative data were subjected to regression analysis with dependent variables measuring job satisfaction and health. Job satisfaction was constructed from six WERS 2011 items (Van Wanrooy et al., 2013); satisfaction with scope for using own initiative, sense of achievement, influence, training, pay and the work itself, on a 5-point scale (1=strongly disagree and 5=strongly agree). The measure summed responses taking values 6 to 30 with a mean value of 21. The mental health measure was constructed from the twelve-item General Health Questionnaire (GHQ-12) (Goldberg et al., 1997) which assesses participants' current psychological states e.g. playing a useful part, ability to make decisions, whether feeling under strain, overcoming difficulties. It uses a 4-point scale (0=much less than usual-3=more than usual). The measure sums responses taking values 0 to 33 with a mean value of 14.5. Since both measures take multiple values the regressions were estimated using ordinary least squares (OLS) and since neither variable is truly continuous we conducted robustness checks using ordered logit and Poisson models. These estimations produced very similar patterns of results in terms of signs and significance.

Independent variables included indicators of menopause status, pre-, peri- or post menopause, and measures capturing experience of menopause symptoms. These were constructed from responses about the degree to which 39 possible menopausal symptoms had been 'bothersome' on a scale of 0-6 (0 = not experienced; 6= high degree of bother) (MenQual survey, Lewis and Hilditch, 1996) in the format, *Have you experienced any of the following menopause symptoms? If so, how much are you/were you bothered by these at work?* Mean scores for the

symptoms were around the mid-point of the scale with the mean score above 4 for only two symptoms (fatigue and sleep problems). Principal component factor analysis with varimax rotation was used to create three indexes capturing the underlying experience of symptom groups (Table A3 shows the factor loadings). The indexes captured more troublesome experiences of: *primary symptoms* e.g. sleep problems, hot flushes, fatigue, mood swings, poor memory and concentration, low confidence; *secondary symptoms* e.g. hair loss, brittle nails, allergies, digestive problems, muscle tension, osteoporosis; and *menstrual symptoms*: heavy or irregular periods.

Attitudinal measures were constructed from 12 questions recording agreement with statements adapted from Griffiths et al. (2010) capturing attitudes to menopause in work and life more generally e.g. menopause means that: *I do my job less well; that managers perceive me to be less competent* (Table A2). Only peri- and post-menopausal women were asked these questions as they referred directly to experience of menopause. Principal component factor analysis with varimax rotation was used to create three indexes capturing attitudes to menopause (Appendix table A4 shows the factor loadings). The three underlying groups were: *positivity towards menopause in managing work and life*; *negativity towards life stage and lack of preparedness*; and, *openness and age positive image*.

Other independent variables in the regressions controlled for workplace context (wears a uniform, body armour, police force, gender balance of workplace, gender of manager) and individual characteristics (marital status, highest educational attainment and ethnicity). Job satisfaction was additionally included in the mental health estimations to capture overall importance of work to well-being (Sironi, 2019). To investigate the importance of these characteristics, the extent to which they were more important for peri-menopausal women transitioning through menopause separate regressions were estimated for the whole sample and separately for peri- and post-menopausal women. Table A5 provides definitions and sample means for all the variables used in the analysis.

Qualitative analysis

Qualitative data consisted of open comment in boxes placed at various points in the survey which provided over 37,000 words from 345 participants. While qualitative survey data may be considered to provide less depth than traditional qualitative methods, we argue that its breadth counters this and that, perhaps because anonymous, the data evidenced an unusual level of insight and emotion. We conducted thematic analysis using a hybrid approach (Fereday and Muir-Cochrane, 2006), combining initial use of codes derived from literature and statistically significant relationships identified in the quantitative data analysis with those that emerged from the qualitative data. Combining quantitative and qualitative data in this way offered rich and in-depth insights. For example, mean scores in response to questions about symptoms may mask the experiences of numerous women who experienced significant difficulties (Table A1). The qualitative data offers powerful illustration of this important group and further illuminates quantitative findings.

Findings

Here, we first report how experiences of symptoms impact on job satisfaction and health, next discussing how attitudes to menopause influence these relationships. Analysis of social factors is woven through both sections.

Experiences of symptoms, job satisfaction and health

Space limitations mean that we report experiences of symptoms in brief (RQ1). Many reported bothersome symptoms, with sleep problems, fatigue, irritability, hot flushes and poor concentration, means of 3.6-4.4 (Table A1). Wide standard deviations suggest that there was a group for whom menopause symptoms created a substantial degree of bother. Regression analysis explored relationships between menopause symptoms and dependent variables of job satisfaction and mental health (RQ 4, Tables 2-3). Peri- and post-menopausal women had significantly higher job

satisfaction than pre-menopausal women (the reference group). However, only post-menopausal women had better mental health. These relationships were counteracted by more troublesome experiences of *primary* and *secondary symptoms*. More troublesome *menstrual symptoms* were also associated with poorer mental health. *Primary symptoms* had the strongest negative effect on both mental health and job satisfaction: the marginal effect on job satisfaction of -0.711 equates to a reduction of 3.36% at the mean and the marginal reduction in health of -2.311 equates to a 15.94% reduction at the mean.

Separate estimations (columns 2 and 3) for peri- and post-menopausal women indicated some differences in the associations between bothersome experiences of symptoms and job satisfaction and mental health. In particular, troublesome experiences of *secondary symptoms* were more strongly and negatively associated with job satisfaction among peri-menopausal women. Troublesome *menstrual symptoms*, as would be expected, were only associated with mental health in peri-menopause.

Qualitative data illustrate how more troublesome experience of primary symptoms in particular can impact women's experience of work, the first quote in relation to job satisfaction and the second to mental health:

I find now that my memory and concentration is not as it was ... so this can cause a problem ... with my job role. I have to wear layers ... because of hot flushes. I can feel dizzy and sick ...
Force C

I have lost my confidence, am clumsy and have real memory loss... I don't feel worthy any more, or valued. Force C

Regressions also included workplace context (RQ3). Some workplace characteristics were significant although there were differences in their importance for peri- and post-menopausal women. For example, working shifts was negatively associated with job satisfaction for peri-menopausal women,

but not post-menopausal women suggesting that shift working caused particular difficulties during menopause transition:

I intend to apply for a flexible shift due to the symptoms I am experiencing. I find that night shifts make me anxious, extremely fatigued and I cannot recover from 24/7 shifts in the way that I used to. Force B

The positive effect on mental health of a more female workforce and the negative association between job satisfaction and preferring not to state the manager's gender were only significant for peri-menopausal women. However, a more female workforce was significantly and positively associated with job satisfaction for post-menopausal women. There was a stronger positive relationship between job satisfaction and wearing body armour for peri-menopausal women and also a stronger positive association between wearing a uniform and mental health. In contrast, among post-menopausal women, mental health well-being was significantly and negatively associated with wearing body armour

These results highlight the complex relationship between menopause transition and well-being and also flag the importance of some workplace characteristics for job satisfaction and mental health. In the qualitative evidence, this was particularly evident around gender in the workplace:

What keeps me going on a daily basis is that the office is mainly women with quite a few of us going through the same thing. We can talk about it, laugh about and cry about it. I will retire after 25yrs service as I feel that it is becoming harder every day to get up and do a full day's work. Force C

I get the overall general opinion that supervisors/managers (who are usually male) think it's just life and women should get on with it. It's just not that easy sometimes. Force B

Attitudes to menopause, job satisfaction and health

In relation to attitudes to menopause (RQ2), just over half of peri- and post-menopausal women were prepared for/aware of menopause. For some, completing survey questions on

symptoms had created a realisation that '*this might be me*' (Force A) and they might be in transition, suggesting a surprising lack of awareness of menopause and its symptoms. Responses to attitudinal questions also showed that some viewed menopause positively, as *the start of a positive new life phase* (23%) and *a release from having to think about periods and contraception* (60.91%) (Table A2). These views were also displayed in open comment with many women positive towards menopause transition:

I didn't allow any of my symptoms get in the way as I embraced my menopause.... Workwise I was surrounded by people I felt comfortable in telling I was menopausal and that if I was crabby or forgetful they would have to work with me... Force C

displaying openness and age positivity:

We worry about the menopause but with age hopefully comes maturity, wisdom and greater self-assurance which has helped me cope. Force B

However, others felt it was harder to manage life (52.68%) and they had to work harder to maintain job performance (54.98%) and were negative and worried that menopause was a sign of ageing and were not prepared for it. Smaller but important groups worried about the attitudes of others, for example, that managers and colleagues might perceive them as less competent. As qualitative data revealed, this experience was clearly problematic for some:

I feel that I am considered a whinging old woman or 'past it' if I voice any concerns or have time off due to.... menopause. Force A

Additional regression analyses included the three attitudinal measures for the sub-sample of peri- and post-menopausal women, with the former the reference group and job satisfaction and mental health the dependent variables, (RQ5-6, Table 4). All the attitudinal measures were significant in both estimations and take expected signs: positive for *positivity* and *openness*, negative for *negativity*. For job satisfaction, inclusion of the attitudinal measures caused all the symptom measures to lose significance. In contrast, for mental health, *primary* and *secondary symptoms*

retained significance, albeit at somewhat lower levels (than Table 3). Reduced significance of symptoms with the inclusion of the attitudinal measures is indicative of interrelationships between experience of symptoms, particularly *primary symptoms* and attitudes to menopause (see Table A6 which shows correlations between symptom indexes and attitudes).

Influence of workplace context was also evident in the attitudinal data. Two of the five items weighted highly in the significant *positivity* measure reflected perceived attitudes of managers and colleagues towards the individuals' competency (Table A4). This is consistent with qualitative data highlighting the importance of managers and peers. There were numerous comments about the impact of unsupportive managers or peers upon women's experiences at work:

I do think that my manager believes 'I'm losing it' as I keep forgetting things. He is a very traditional gaffer (male) I could not discuss menopause with him. Force C

Supervisor constantly makes remarks to myself about being in menopause, because I have hot flushes ... [Work colleagues] don't actually care that you tell them not to, it's just seen as 'a laugh'. Force B

The qualitative data offered clear insight into the critical role of line manager, both positive and negative, in women's experiences of menopause symptoms and their well-being.

Discussion

Our findings evidence complex patterns, demonstrating that experiences of menopause transition differ widely. As anticipated, symptoms of menopause transition were experienced by many women (supporting Jack et al., 2019, Butler, 2019), and for some were extremely bothersome. This makes it important to account for individual experiences of symptoms. Exploring these symptoms in relation to workplace well-being allows us to go further and demonstrate that negative experience of symptoms is likely to impact negatively on both job satisfaction and mental health. In particular, primary and secondary symptoms were associated with reduced job satisfaction and

mental health for peri- and post-menopausal women. Menstrual symptoms were associated with reduced mental health in peri-menopause. This contrasts with findings that job satisfaction was higher in peri- and post- than in pre-menopause. While the latter supports existing research showing that levels are higher among older employees (Kooij et al., 2015), the former indicates that, for women, positive age effects are moderated by negative experiences of menopause symptoms. Our findings suggest that investment in support for women during menopause transition is important in maintaining positive individual and organisational performance outcomes.

We also evidence the importance of understanding menopause transition within the context of a woman's life, particularly in relation to attitudes and workplace context. Taking first job satisfaction, significant relationships with primary and secondary symptoms were substantially influenced by workplace context. For example, there was a positive association between wearing body armour and job satisfaction, presumably related to holding specialist and highly-skilled roles, but a negative association with working shifts, particularly in peri-menopause. This was explained by participant accounts of, for example, the difficulties in accessing appropriate facilities while on the beat at night and managing excessive fatigue. Gender was also an important workplace influence: a female-dominated workplace enhanced job satisfaction and this was reduced in peri-menopause for those who (even in an anonymous survey) preferred not to disclose their manager's gender. This suggests lack of workplace trust and chimes with a reluctance, noted in qualitative data, to disclose symptoms in male-dominated environments (Authors). Here, the importance of line manager support repeatedly emerged as vital, but often lacking in a hyper-masculine context (Dick, 2009), amidst tales of being bullied, humiliated and stigmatised.

Importantly, we also evidence the influence of attitudes, *positivity* and *openness* both being associated with higher, and *negativity* with lower, job satisfaction and mental health. In particular, *positivity* highlights the importance of the work environment as a determinant of the well-being of older female employees. The significance in the mental health estimations of *negativity* towards life

stage and lack of preparedness suggests that those who saw menopause as a natural life stage and were better prepared for it had higher mental health. Attitudes appeared to outweigh (counteracting or exacerbating) the effect of negative experiences of menopause on job satisfaction, but did not negate the directly negative effect of women's experience of primary and secondary symptoms on mental health. They were, perhaps inevitably, shaped by the hyper-masculine context and women worked harder to maintain their job performance, reflecting what Steffan (2021) refers to as 'the neo-liberal project of the self' as women assumed responsibility for managing their symptoms:

'As police officers, we are resilient and will always make it work.' Force C

The reduced significance of symptoms following inclusion of attitudinal measures is also indicative of the interplay between experiences and context (Authors). For job satisfaction, experience of symptoms lost statistical significance when individual attitudes were added. This suggests the relationship between symptoms and well-being is moderated by women's attitudes towards ageing and menopause, again highlighting the complexity of relationships and the importance of a positive workplace culture.

Together these results suggest that symptoms, attitudes and workplace context have important implications for well-being. While adopting a bio-medical model leads to environmental adaptations that address the negative effects of symptoms (Griffiths et al., 2010), within a bio-psycho-social approach, we have evidenced that positive attitudes and a supportive environment can ameliorate the impact of menopause transition on well-being. Awareness and understanding of and positivity towards menopause transition were important within this, as was creating an open workplace culture where disclosure and discussion were possible. Our qualitative data, however, suggests that this culture was largely absent and indeed, some participants raised concerns about mainstreaming a menopause discourse fearing, as High and Marcellino (1994: 352, cited in Grandey

et al., 2020) suggest, that women will be seen as the weaker sex and it will be '*one more reason to... keep them in their place*'.

Conclusions

Here, we have adopted a bio-psycho-social model to explore menopause transition and its impact on workplace well-being. In relation to our research questions, we have evidenced both that symptoms have important implications for well-being and that women's experiences of symptoms are influenced by their own, and perceptions of others', attitudes and workplace context which again influences well-being. Our findings are important as they are the first empirical examination of these relationships.

Our work makes two important theoretical contributions. First, we bring together bio-psycho-social and well-being frameworks to evidence the complexity of influences upon workplace well-being. We demonstrate varied impacts of symptoms and how these inter-relate with both attitudes to ageing/menopause and with the wider context. This offers a much more nuanced understanding of well-being than existing analyses which typically consider employees as an homogenous group. Second, in focusing on older women, who are a substantial and growing workplace group (ONS, 2022), we extend understanding of gendered ageing. This understanding is lacking (Riach et al., 2015, Thomas et al., 2014) and here we evidence the negative attitudes that women fear from managers and the disadvantage that they experience in hostile work environments. Despite this, we also demonstrate that this can be offset by women themselves having more positive attitudes and, for some, a growing confidence at this life stage.

Our work also makes an important contribution to practice, where there is a lack of knowledge about how to support women experiencing menopause transition (Brewis et al., 2017). This is important given recent trends of older workers leaving employment and the need to retain

this group, particularly given the noted productivity of post-menopausal women (Authors). While we need to understand varied worker needs and preferences (Stirpe et al., 2018), current interventions tend to focus on addressing symptoms rather than the psycho-social aspects of menopause transition (Grandey et al., 2020). Practices that offer appropriate environments, e.g., access to toilets, cold water and ventilation are necessary but not sufficient. It is also important to address psychological factors to create positive attitudes though e.g., communications programmes that raise awareness. Finally, social factors should be addressed to e.g., build inclusive, supportive and open workplace cultures and offer managers support and training in managing menopause related issues in a sensitive and effective way. This will further serve to counter gendered ageism, which has received relatively limited attention (Thomas et al., 2014). As Hardy et al. (2018) note, this is important not just for women and organisations, but also for the wider economy and society in enabling older women to remain active in the labour market. Further, while some identified practices are menopause transition-specific, many have benefits that spill over to create generally more diverse and inclusive workplace e.g., psychological and social factors are also important in the disclosure of mental health (Hastuti and Timming, 2021).

Our study has limitations in that it is confined to one sector, the police service, and future research could usefully extend to other sectors. Given the identified importance of line managers, further research into their role in implementing diversity policies would also be of benefit (Kirton et al., 2016). Finally, we have explored the intersection of age and gender in a predominantly White British workforce. Research that integrates the role of race and ethnicity is also much needed. Our research is nevertheless powerful: older women are an important and growing workforce group and our work contributes to improving their well-being and countering gendered ageism.

Data availability statement: for to commercial reasons, supporting data is not available.

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Tables

Table 1: Participant numbers and menopausal status

	Force A	Force B	Force C	Total
Police Officers (and PCSOs)	116 (10)	381 (26)	167 (12)	460 (48)
Police staff	115	263	104	600
Volunteers	122	341	113	576
Pre-menopause	113	306	68	487
Peri-and post-menopause	250	592	328	1197
Total	363	925	396	1684

Table 2. Menopause and job satisfaction

Independent variables	(1) All	(2) Peri- menopause	(3) Post- menopause
<i>Menopause measures</i>			
Peri-menopause	1.399*** (0.51)		
Post-menopause	1.218** (0.50)		
Primary symptoms	-0.705*** (0.18)	-0.618** (0.28)	-0.756*** (0.26)
Secondary symptoms	-0.410*** (0.13)	-0.463** (0.19)	-0.299* (0.17)
Menstrual Symptoms	-0.148 (0.13)	-0.163 (0.20)	-0.106 (0.19)
<i>Workplace context</i>			
Wears uniform	-0.333 (0.37)	0.124 (0.52)	-0.916 (0.56)
Wears body armour always	0.864* (0.52)	1.936*** (0.74)	0.467 (0.80)
Wears body armour occasionally	1.433*** (0.33)	1.842*** (0.46)	1.177** (0.50)
Works shifts	-1.140*** (0.34)	-2.149*** (0.48)	0.004 (0.50)
More female workplace	0.147 (0.30)	-0.444 (0.45)	0.784* (0.43)
Manager's Gender: female	-0.207 (0.29)	-0.012 (0.44)	-0.343 (0.42)
Manager's Gender: prefer not to say	-2.276*** (0.80)	-4.721*** (1.17)	-0.687 (1.10)
<i>Controls for Force and individual characteristics</i>	yes	yes	yes
Observations	1,034	409	526
R ²	0.088	0.163	0.078
F	5.14***	4.49***	2.52***

Reported figures are OLS coefficients, standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1

Table 3. Menopause and mental health

Independent variables	(1) All	(2) Peri- menopause	(3) Post- menopause
<i>Menopause measures</i>			
Peri-menopause	-0.169 (0.60)		
Post-menopause	1.466** (0.59)		
Primary (physical health & emotional) Symptoms	-2.311*** (0.21)	-2.590*** (0.32)	-2.487*** (0.31)
Secondary Physical Effects	-0.729*** (0.14)	-0.765*** (0.21)	-0.764*** (0.20)
Menstrual Symptoms	-0.263* (0.15)	-0.649*** (0.22)	-0.103 (0.22)
<i>Workplace context</i>			
Wears uniform	0.211 (0.41)	1.298** (0.59)	-0.969 (0.64)
Wears body armour always	0.677 (0.58)	-0.529 (0.83)	1.922** (0.92)
Wears body armour occasionally	-0.683* (0.38)	-0.511 (0.53)	-1.143** (0.58)
Works shifts	-0.204 (0.38)	-0.212 (0.56)	-0.182 (0.58)
	(0.37)	(0.57)	(0.55)
More female workplace	0.690** (0.34)	1.093** (0.51)	0.555 (0.50)
Manager's Gender: female	0.392 (0.33)	0.851* (0.49)	0.301 (0.48)
Manager's Gender: prefer not to say	0.283 (0.90)	0.977 (1.31)	0.235 (1.30)
Job satisfaction	0.232*** (0.04)	0.249*** (0.06)	0.234*** (0.05)
<i>Controls for Force and individual characteristics</i>	yes	yes	yes
Observations	954	384	490
R ²	0.216	0.260	0.215
F	12.84***	7.11***	7.15***

Reported figures are OLS coefficients, standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1

Table 4: Menopause symptoms, attitudes and job satisfaction and mental health

Independent Variables	(1) Job Satisfaction	(2) Mental health
<i>Menopause measures</i>		
Post-menopause (reference group: Peri-menopause)	-0.332 (0.31)	1.368*** (0.35)
Primary symptoms	0.027 (0.22)	-1.654*** (0.25)
Secondary symptoms	-0.043 (0.13)	-0.389** (0.15)

Menstrual symptoms	0.068	-0.035
	(0.14)	(0.16)
<i>Attitudinal measures</i>		
Positivity: Positivity towards menopause in managing work & life	1.217***	1.311***
	(0.15)	(0.18)
Negativity: Negativity towards life-stage & lack of preparedness	-0.413***	-0.573***
	(0.14)	(0.16)
Openness: Openness & age positive image	0.291**	0.352**
	(0.14)	(0.16)
<i>Controls for workplace context</i>	yes	yes
<i>Controls for Force and individual characteristics</i>	yes	yes
Observations	879	822
R ²	0.157	0.292
F	7.61***	14.98***

Reported figures are OLS coefficients, standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1

ⁱ Data was drawn from Human Resource Information Systems in which participants had self-identified as female. On this basis, we use the terms female/women, although we recognise that menopause transition is experienced by other groups, including non-binary and trans people.

Author Bios

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Jo Duberley is Professor of Organisation Studies at University of Birmingham. Central to her research is an interest in the concept of career. In recent years, she has developed research examining the impact of gender, ethnicity, social class and age on careers in a variety of contexts, including defence, professional service organisations and the police in the UK. Current interests focus on the career progression of women in the professions, ageing and menopause at work. She co-directs the Work Inclusivity Research Centre at the University of Birmingham with Dr Holly Birkett.