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Atkinson, Carol , Carmichael, Fiona and Duberley, Joanne (2024) A bio-psycho-social investigation of menopause transition and job satisfaction. *Maturitas*. 108187 ISSN 0378-5122

DOI: <https://doi.org/10.1016/j.maturitas.2024.108187>

Publisher: Elsevier

Version: Accepted Version

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Data Access Statement: There are no linked research data sets for this paper. The data was collected in conjunction with the police service in England and they do not give permission to share the data for reasons of organisational sensitivity.

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A bio-psycho-social investigation of menopause transition and job satisfaction

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Abstract

Objectives: To examine the implications of menopause transition for job satisfaction within a framework that integrates bio-psycho-social factors and effects.

Study design: The study analyses quantitative and qualitative data from 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.

Results: We evidence that job satisfaction is negatively impacted by experience of menopause symptoms. Attitudes towards age and menopause are also important: job satisfaction is lower for peri- and post-menopausal women with negative attitudes and higher for women with more positive and open attitudes. Some workplace factors such as shift working and the gender balance of the workplace also have a significant impact on the job satisfaction of women transitioning menopause.

Conclusion: Our results highlight the need for human resource practices that go beyond the typical focus on symptoms. Support mechanisms need to address attitudes towards menopause and develop more inclusive workplaces in order to maintain women's job satisfaction and retain them in the workplace during menopause transition.

Key words

Menopause transition, bio-psycho-social, job satisfaction

1.Introduction

Menopause transition is an important topic: extended working lives means that ever-growing proportions of workforces in the Global North are older [1]. This is particularly notable for women: in the UK since 2000, the proportion of women working aged 50-64 has grown by 15%, compared to 8% for men [2]. This means that many more women are working through menopause transition [3]

which can have a moderate to severe impact on their working lives leading to a reduction in working hours or job market exit [4]. To date, most research focuses on professional women or those working in admin/clerical roles [3, 5-7]. We know little about other types of roles or workplaces, e.g. shift workers, uniform wearers [8]. This paper reports on the job satisfaction of older women transitioning through menopause 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 [9].

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, heavy or irregular periods, disturbed sleep and less-well recognised symptoms including poor concentration and memory [10]. While not every woman experiences problematic symptoms [11], up to three quarters experience some difficulty and one quarter substantial difficulty [12].

Whilst research has started to highlight the workplace implications of menopause [3, 5-7], much research on menopause transition sits outside of work and employment disciplines, e.g. in medicine and occupational health [13-15]. Some symptoms, such as hot flushes and memory lapses, have been identified as problematic at work [6] and these relationships are bi-directional [8], that is, they can be ameliorated or exacerbated via physical aspects of the workplace e.g. access to well-ventilated spaces, cold water and toilets [10].

Although a robust evidence base is lacking, menopause transition might be expected to have negative consequences for job satisfaction (JS). JS is a subjective positive state that arises from a worker's perception of work itself and the work situation [16]. That there is an absence of research on the implications of menopause transition for JS is an important gap given long established links between JS and individual performance and reduced labour turnover [17].

The bio-psycho-social approach recognises that there is no universal menopause experience [11] and considers that experience of menopause extends beyond the biological. It should be understood within the wider psycho-social context of women's lives [18]. Psychological factors include negative attitudes towards menopause [19] including negative perceptions of colleagues [20] which can lead women to conceal their menopausal status at work due to embarrassment [13]. However, some women may experience this life stage positively [6] and positive attitudes toward ageing and menopause can ameliorate symptoms [3]. Social factors specific to employment include work settings and roles [19]. Grandey et al.'s [3] review suggests that male-dominated contexts are often inhospitable places for menopausal women. Our research is situated within the UK police service, a highly masculine context [21] where there is little tolerance of workers that are not masculine, fit and strong [22]. A hostile environment creates an important role for line managers [23], but their willingness or capacity to offer support has often 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 [24]. Yet lack of manager support can exacerbate symptoms [5] and unsupportive line managers create reluctance to disclose menopause status [3]. Our research uses a bio-psychosocial framework to extend understanding of the relationship between menopause transition and women's satisfaction with work.

2. Methods

Drawing on a bio-medical perspective, we expect severe physical symptoms to be associated with reduced performance [7] which might then negatively impact JS. From a psychological perspective, Grandey, Gabriel [3] found negative attitudes towards menopause transition were associated with poorer performance, which we expect to negatively impact JS. From a social perspective, workplace factors can reinforce or offset the negative effects of menopause

transition on performance and satisfaction. For example, factors impacting inclusivity [25] and support [7] which may be more difficult to access in a highly masculine contexts, such as the police service [21]. Accordingly, our research examines the hypotheses that the job satisfaction of women transitioning menopause is impacted by:

- (1) the bio-medical experiences of menopause symptoms;
- (2) psychological factors underlying attitudes towards menopause; and
- (3) social factors within workplace contexts.

Data were gathered via an online survey circulated to all workers self-identifying as womenⁱ within the HR Information Systems of three large urban UK police forces (Table 1), referred to as A, B and C. The survey collected quantitative and qualitative data, using 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

Regression analysis was conducted with the dependent variable measuring JS constructed from six WERS 2011 items [26] specifically 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 scores over responses taking values from 6 to 30 with a mean of 21. The measure approximates a continuous variable and ordinary least squares (OLS) estimation was considered appropriate (robustness checks using ordered logit and Poisson models produced similar results).

Independent variables include a categorical variable recording menopause status; pre-, peri- and post menopause (depending on the sub-sample). All regressions include three independent variables capturing experiences of bio-medical menopause symptoms. These were constructed using principal component factor analysis with varimax rotation from responses recording the degree to which 39 menopausal symptoms were 'bothersome' on a scale of 0-6 (0 = not experienced; 6= high degree of bother) [MenQual survey, 27]. The questions asked, *Have you experienced any of the following menopause symptoms? If so, how much are you/were you bothered by these at work?* Many reported bothersome symptoms, particularly with sleep problems, fatigue, irritability, hot flushes and poor concentration (means scores of 4.41, 4.29, 3.75, 3.76 and 3.62 respectively). The three constructed measures captured more troublesome experiences of: *classic symptoms, particularly* sleep problems, hot flushes, fatigue, irritability, depression, mood swings, poor memory, poor concentration, low confidence; *less reported symptoms, notably* hair loss, allergies, gum problems, burning tongue, electric shocks, hearing loss, osteoporosis; and *menstrual symptoms:* heavy or irregular periods.

Three psychological measures of attitudes to menopause were constructed from factor analysis of responses to 12 questions recording agreement with statements (adapted from Griffiths et al. (2010)) capturing attitudes to menopause e.g. menopause means *that I do my job less well* (29.95% agreed); *that managers (colleagues) perceive me to be less competent* (17.72% (17.69%)); *it is generally harder to manage my life* (52.68%); *I need to make more effort to maintain my job performance* (54.98%); *a sign of age* (80.07%) or; that menopause is *the start of a positive new life phase* (23%); *a natural life stage not a medical disorder* (75.76%); *a release from having to think about periods and contraception* (60.91%); *something I was prepared for/aware of* (52.52%). The three constructed groups were: *positivity towards menopause in managing work and life; negativity towards life stage and lack of preparedness; and, openness and age positive image.* Peri- and post-menopausal women were asked these questions in relation to their experience of menopause.

Social factors reflecting workplace and job context included: wearing a uniform or body armour (whether and how often), the gender balance of the workplace and the manager's gender. Other included variables controlled the police force and for individual characteristics: marital status, highest educational attainment and ethnicity.

Qualitative analysis

Qualitative data consisted of open comment in boxes which provided over 37,000 words from 345 participants. We conducted thematic analysis using a hybrid approach [28], combining 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 provides more in-depth insights into the regression results.

Ethical approval, including informed consent, was awarded from Author 1's Faculty Research Ethics and Governance Committee, Ethos reference 324.

3. Results

(Table 2 here)

3.1 Bio-medical symptoms

The results in estimation 1 in Table 2 indicate that peri- and post-menopausal women have significantly higher JS than pre-menopausal women (the reference group). These relationships contrast with a negative relation between JS and more troublesome experiences of *classic* and *less reported symptoms*. There is no association between *menstrual symptoms* and JS. More troublesome *classic symptoms* have the strongest negative effect on JS: the marginal effect on JS of -0.711 equates to a reduction of 3.36% at the mean. Estimations 2 and 3 are for the separate sub-samples of peri- and post-menopausal women. These indicate that more troublesome experiences of *less reported symptoms* are more negatively associated with JS among peri-menopausal women.

Qualitative data reinforced how troublesome experience of classic symptoms in particular can impact women's experience of work:

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

3.2 Attitudes to menopause

Estimation 4 in Table 2 includes the three attitudinal measures for the sub sample of peri- and post-menopausal women who answered the attitudinal questions. All the attitudinal measures are significant and take expected signs: positive for *positivity* and *openness*, negative for *negativity*. With the inclusion of the attitudinal measures the direct effect of symptoms loses significance reflecting the interrelationship between symptoms and attitudes; more negative (positive and open) attitudes are positively (negatively) correlated with more troublesome experience of symptoms.

Two of the five items weighted highly in the *positivity* measure reflected perceived attitudes of managers and colleagues towards the individuals' competency. This underscores the critical role of unsupportive managers or peers upon women's experiences at work reflected in numerous open comments indicating that working relationships were clearly problematic for some:

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

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

However, positivity and openness towards menopause transition and ageing were also voiced:

I didn't allow any of my symptoms get in the way as I embraced my menopause.... Force C

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

3.3 Workplace factors

Some work characteristics are significant and there are differences in their importance for women at different stages in menopause. There is a positive relationship between JS and wearing body armour and this is stronger and more consistent for women in menopause transition, particularly peri-menopausal women. This suggests that satisfaction with types of police work that require body armour is not negatively impacted by menopause (once symptoms are controlled for). In contrast, working shifts is negatively associated with JS for peri-menopausal but not post-menopausal women, suggesting that shift working causes particular difficulties during menopause transition:

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

A more female workforce is significantly and positively associated with JS for post-menopausal women while (preferring not to report) a manager's gender is a significant issue for peri-menopausal women. The importance of gender in the workplace was evident in the qualitative data:

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

4. Discussion

Our findings demonstrate that negative experience of classic and less reported menopause symptoms is likely to reduce JS. In contrast, after controlling for symptoms, JS is higher in peri- and post- than in pre-menopause suggesting that positive age effects are counteracted by negative experiences of menopause.

Importantly, we also evidence the influence of psychological factors and attitudes towards ageing and menopause with JS. For example, the significance 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 JS. That attitudes also appeared to counteract a direct effect of negative experiences of menopause symptoms on JS is indicative of the interplay between bio-medical and social factors [18]. Attitudes were inevitably shaped by the hyper-masculine context requiring women to work harder to maintain job performance, reflecting what Steffan [29] refers to as ‘the neo-liberal project of the self’: *‘As police officers, we are resilient and will always make it work’* (Force C). That the relationship between symptoms and JS is intertwined with women’s attitudes towards ageing and menopause highlights the complexity of these relationships and the importance of a positive workplace culture.

We also evidence the importance of understanding menopause transition in relation to workplace context. The stronger positive association between wearing body armour and JS in peri-menopause is presumably related to holding specialist and highly-skilled roles. The negative association with working shifts, particularly in peri-menopause, was explained by participant accounts of the difficulties in accessing appropriate facilities while on the beat at night and managing excessive fatigue. Gender is also an important social workplace factor. Post-menopausal women reported higher JS in a female-dominated workplace and line manager support emerged as vital but often lacking, amidst tales of being bullied, humiliated and stigmatised.

These results suggest that bio-medical symptoms, psychological attitudes and social workplace context have important implications for JS. Bio-medical models focus on the negative effects of symptoms [13], our bio-psycho-social approach evidences how positive attitudes and a supportive environment can ameliorate the impact of menopause transition on JS. Our qualitative data, however, suggests that positivity and openness towards menopause were uncommon. Indeed, some participants raised concerns about mainstreaming a menopause discourse fearing that women will be seen as the weaker sex and it will be *‘one more reason to... keep them in their place’*.

Older women are an important and growing workforce group and our work contributes to improving their working lives. However, generalisability is limited by confinement to the police

service. Future research could usefully extend to other sectors. Our sample is also predominantly (82.8%) White British. Research considering the role of race and ethnicity is much needed. Given the importance of line managers, further research into their role in implementing diversity policies would be of benefit.

5. Conclusions

We adopt a bio-psycho-social approach to explore menopause transition and JS. Our findings represent the first empirical examination of these relationships. We evidence that experience of symptoms and women's own attitudes, and their perceptions of others' attitudes towards menopause and ageing have important implications for JS.

Our work makes an important contribution to practice, where there is a lack of knowledge about how to support women experiencing menopause transition [10]. This is important given the need to retain older women and support their performance. Current interventions tend to focus on addressing bio-medical symptoms rather than the psycho-social aspects of menopause transition [3]. Practices that offer appropriate environments, e.g. 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. Social factors should also be addressed by building more inclusive, supportive and open workplace cultures and training in managing menopause related issues in a sensitive and effective way. As Hardy et al. [14] note, making these changes is important for women and organisations, but enabling older women to remain active in the labour market is also beneficial for the economy and society.

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Tables

Table 1: Participant numbers and menopausal status

	Force A	Force B	Force C	Total
Police Officers (and Police Community Support Officers)	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. Job satisfaction

Independent variables	(1) All	(2) Peri-menopause	(3) Post-menopause	(4) Peri/post- menopause
Classic symptoms	-0.705*** (0.18)	-0.618** (0.28)	-0.756*** (0.26)	0.027 (0.22)
Less reported symptoms	-0.410*** (0.13)	-0.463** (0.19)	-0.299* (0.17)	-0.043 (0.13)
Menstrual Symptoms	-0.148 (0.13)	-0.163 (0.20)	-0.106 (0.19)	0.068 (0.14)
Peri-menopause	1.399*** (0.51)			
Post-menopause	1.218** (0.50)			-0.332 (0.31)
Positivity towards menopause in managing work & life				1.217*** (0.15)
Negativity towards life- stage & lack of preparedness				-0.413*** (0.14)
Openness & age positive image				0.291** (0.14)
<i>Workplace context</i>				
Wears uniform	-0.333 (0.37)	0.124 (0.52)	-0.916 (0.56)	-0.295 (0.38)
Wears body armour always	0.864* (0.52)	1.936*** (0.74)	0.467 (0.80)	1.147** (0.55)
Wears body armour occasionally	1.433*** (0.33)	1.842*** (0.46)	1.177** (0.50)	1.586*** (0.34)
Works shifts	-1.140*** (0.34)	-2.149*** (0.48)	0.004 (0.50)	-0.931*** (0.35)
More female workplace	0.147 (0.30)	-0.444 (0.45)	0.784* (0.43)	(0.087) (0.31)
Manager's Gender: female	-0.207 (0.29)	-0.012 (0.44)	-0.343 (0.42)	-0.32 (0.3)
Manager's Gender: prefer not to say	-2.276*** (0.80)	-4.721*** (1.17)	-0.687 (1.10)	-1.924** (0.78)
<i>Controls for Force and individual characteristics</i>	yes	yes	yes	yes
Observations	1,034	409	526	879
R ²	0.088	0.163	0.078	0.157
F	5.14***	4.49***	2.52***	7.61***

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

ⁱ We use the terms female/women on this basis while recognising that menopause transition is experienced by other groups.