

The influence of menopausal complaints on employee well-being and the moderating effect of job resources

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Abstract

This thesis describes the cross sectional research about the relationship between perceived menopausal complaints and employee well-being and the moderating effect of flexible work arrangements, supervisor support and coworker support. 405 Women between 40 and 65 years indicated their menopausal complaints, level of burnout, level of engagement, supervisor support, coworker support and their use of flexible work arrangements on a questionnaire. Results showed that perceived menopausal complaints decreased the level of engagement and increased the level of burnout. Coworker support turned out to be the only job resource that weakens the relationship between perceived menopausal complaints and burnout. No results were found for the moderating effects of flexible work arrangements and supervisor support. Supervisor and coworker support did moderate the relationships between several dimensions of menopausal complaints and dimensions of burnout and engagement. These results implicate the importance to recognize the menopause at work and to further investigate which job resources can help women to cope with their menopausal complaints.

Introduction

More and more employees older than 50 years are participating on the labor market nowadays in the Netherlands. The net labor participation of people from 50 to 65 years old has increased from 40% up to 55% in the period from 1996 until 2008. Women are responsible for 67% of this increase. The labor participation among women between 50 and 55 years old has almost doubled between 1996 and 2008 according to Otten, Arts, Siermann and Ybema of 'Statistics Netherlands' (2010). According to Otten et al (2010) this increase in labor participation of women from 50 to 65 years old will continue the next years, due to the steady inflow of the younger generation with higher levels of labor participation.

These changes in labor participation among older women create new challenges for human resource management (HRM). One of these challenges for HRM is managing women in the menopause. According to Goldman (2010), the menopause occurs between the ages of 48 and 58. In medical terms the menopause means the last menstruation period and the menopause is a natural stage in every woman's life (Goldman, 2010). The complaints, caused by the menopause, occur when the natural estrogen level of a woman falls (Goldman, 2010). Hot flushes, tiredness, mood swings, aches and pains, night sweats that lead to insomnia, urinary frequency, depression and anxiety are the complaints that are most likely to affect women at work (Goldman, 2010). It is not difficult to imagine that these complaints will indeed affect older women at work. However, there is still limited information available about how human resources management can develop appropriate support and how the workplace can deal with the menopause (Fisher, 1994).

The job demands – resources (JDR) model (Bakker & Demerouti, 2007) can help in describing the situation for older women on the workplace. The JDR model assumes that every occupation has to deal with certain factors that can be classified into two general categories: Job demands and job resources (Bakker & Demerouti, 2007).

Bakker and Demerouti (2007) define job demands as the “physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort or skills and are therefore associated with certain physiological and/or psychological costs”. The menopausal complaints that older women have to cope with are not job demands, but these complaints can make it more difficult for older women to cope with the existing job demands.

Job resources can be used to help older women to cope with their job demands. Bakker and Demerouti (2007) define job resources as “the physical, psychological, social or organizational aspects of the job that are either/or: Functional in achieving goals, reducing job demands and the associated physiological and psychological costs, and stimulating personal growth, learning and development”. The JDR model assumes that there are two different underlying psychological processes that play a role in developing job strain or motivation (Bakker & Demerouti, 2007). In the end these processes will affect organizational outcomes. The JDR model also proposes that job resources may buffer the impact of job demands on job strain, including burnout (Bakker & Demerouti, 2007).

The changing demographic characteristics of the workforce and the challenges this new situation brings make it seem very interesting to investigate whether the menopause has an influence on employee well-being and whether job resources can be used to diminish this negative effect. Therefore, the research question is:

To what extent have menopausal complaints a negative effect on the well-being of older women at work and to what extent can a selection of job resources limit this negative influence?

Menopause and employee wellbeing

In medical terms, the menopause is defined as the last menstruation in a woman's life (Groeneveld, Bijl, Smulders, Bartels, Vanneste, Kortmann, Eizenga & Boukes, 2001). However, the menopausal transition is the period of irregular menstruations and the first years without menstruation (Groeneveld et al, 2001). According to Groeneveld et al (2001) half of the women in the Netherlands have reached the menopause at an age of 51 years. During the menopausal transition 80 per cent of the women have to cope with menopausal complaints but only a small amount of these women will look for medical help (Groeneveld et al, 2001). Typical complaints of the menopausal transition are a changing menstruation

cycle, not menstruating any more, hot flushes, night sweats, tiredness, vaginal dryness or irritation, depression and anxiety (Groeneveld et al, 2001). The menopausal complaints can be divided into different dimensions. Dimensions that are often mentioned are sleeping problems, physical complaints, vasomotor complaints, depressed mood, anxiety and sexual problems (Heinemann, Potthoff & Schneider, 2003; Greene, 2008; Borud, Martinussen & Eggen, 2009; Hilditch, Lewis, Peter, Marls, Ross, Franssen, Guyatt, Norton & Dunn, 2006). It is not hard to imagine that all these physical and psychological complaints can have a negative effect on the well-being of working older women.

The meaning of well-being is very complex. Meyer and Maltin (2010) state that well-being should be viewed as more than the absence of illness; measures of personal growth and optimal functioning should also be included. This definition shows two aspects of well-being: Absence or presence of illness versus personal growth and optimal functioning. Since well-being is very complex, this study will focus on burnout as the presence or absence of illness and engagement as a measure of optimal functioning. However, discussing burnout and engagement just as the absence of illness and optimal functioning does not cover the complete image. Therefore, both constructs will be explained separately.

Engaged employees are highly involved in their job, emotionally attached to their organization and are willing to go the extra mile beyond the contractual job description (Markos & Sridevi, 2010). According to Markos and Sridevi (2010), employers nowadays realize that they can create a more efficient and productive workforce by focusing on employee engagement. Robinson, Perryman and Hayday (2004) define employee engagement as “a positive attitude held by the employee towards the organization and its value. An engaged employee is aware of the business context, and works with colleagues to improve performance within the job for the benefit of the organization. The organization must work to develop and nurture engagement, which requires a two-way relationship between employer and employee.” Engagement can be characterized by three dimensions: vigor, dedication and absorption (Schaufeli & Bakker, 2004).

Burnout is a work-related stress syndrome with exhaustion, cynicism and reduced personal accomplishment as the three core dimensions (Bakker, Demerouti & Schaufeli, 2002). According to Bakker et al (2002) burnout, and its core dimensions, can be observed in any occupational group. Exhaustion seems to be most clearly the result of job demands whereas cynicism and reduced personal accomplishment are more strongly related to a lack of job resources (Demerouti, Bakker, Nachreiner & Schaufeli, 2001). According to Demerouti et al. (2001), reduced personal accomplishment is often only studied as an afterthought. Cynicism refers to the development of a negative, cynical, attitude (Demerouti et al, 2001). Emotional exhaustion refers to the draining of emotional resources or energy depletion (Demerouti et al, 2001).

Burnout and engagement together will represent well-being in this study; feelings of wellbeing are an essential element of any attempt to measure quality of life (Utian, Janata, Kingsberg, Schluchter & Hamilton, 2002). Quality of life (QoL) is defined by the World Health Organization (1993) as 'an individual's perception of their position in life in the context of culture and values systems in which they live and in relation to their goal expectations, standards and concerns'. Nisar and Sohoo (2009) found that the presence of menopausal complaints was overall associated with a decrease in the QoL of their study population. This is probably caused by the lack of estrogen which decreases physical and mental wellbeing among postmenopausal women (Nisar & Sohoo, 2009). Since wellbeing is an essential element of QoL and the QoL decreases when menopausal complaints increase, wellbeing is expected to decrease when the number of menopausal complaints increases. Therefore, the first two hypotheses are:

Hypothesis 1: The higher the level of perceived menopausal complaints of older women, the lower the level of engagement will be.

Hypothesis 2: The higher the level of perceived menopausal complaints of older women, the higher the level of burnout will be.

This study will not only focus on the relationship between the scales 'perceived menopausal complaints' and 'engagement' and 'burnout', but will also explore the relationships between the different dimensions of these variables.

Menopause, employee wellbeing and job resources

As mentioned in the introduction, the JDR model states that there are two different psychological processes that will lead to job strain or motivation. The first two hypotheses represent the process of the JDR-model that leads to job strain. In this process job demands, for example in poorly designed jobs or work overload will exhaust the mental and physical resources of the employee and may lead to exhaustion or health problems (Bakker & Demerouti, 2006). In the case of menopausal complaints the job demands will not change, but the complaints will make it more difficult for older women to cope with these job demands. Therefore, it is important to know which job resources can be used to restore employee wellbeing. The job resources have to help older women to cope with their job demands. This represents the second psychological process of the JDR-model; this process is motivational in nature. Bakker and Demerouti (2006) assume that job resources have motivational potential and resources will lead to low cynicism, excellent performance and high work engagement. Examples of job resources are support, control, autonomy and

feedback (Bakker & Demerouti, 2006). In this study, the focus will be on control and support because they are expected to have a moderating influence on the relationship between menopausal complaints and well-being. This means that it is expected that the relationship between perceived menopausal complaints and well-being will be different for women who perceive high support and control than for women who perceive low support and control. Autonomy and feedback are not taken into account because they seem to be more related to a specific job than to the work environment women with menopausal complaints have to deal with. Flexible working will be studied as a job resource that increases job control about where, when and how much older women work. Support will be separated into supervisor support and coworker support. All these job resources are expected to increase wellbeing of older women at work.

Control: Flexible working

The last few years, there has been growing interest in flexible working. An increasing number of employers have introduced a range of flexible working options for their employees (Anderson & Kelliher, 2009). Of all working Dutch people, 35% is working flexible (Koenen, Vieira & Verhue, 2010). Flexible working options offer employees a degree of choice over when, where and how much they work (Anderson & Kelliher, 2009). Typical examples of flexible working are flexi-time, remote working or reduced hours (Anderson & Kelliher, 2009). In this study these three aspects of flexible work will be taken into account.

According to Sladek and Hollander (2009) offering flexible work arrangements will significantly lead to higher engagement among employees. Almer and Kaplan (2002) found evidence that work arrangement is significantly associated with the emotional exhaustion aspect of burnout. When a company offered flexible work arrangements the mean for each emotional exhaustion question was significantly lower than offering a standard work arrangement. This means that offering flexible work arrangements will lead to more engagement and less burnout. However, this is a direct effect. In this study flexible work arrangements are expected to moderate the effect between menopausal complaints and burnout or engagement. This is in line with the JDR-model that proposes that job resources are able to buffer the relationship between job demands and job strain, including burnout (Bakker & Demerouti, 2007). Flexible work environments are seen as the job resource 'control'. Perceived menopausal complaints are seen as an aspect that makes it harder for women to cope with their job demands. Job demands do not increase officially, but they relatively feel more demanding. Therefore, it is expected that the same amount of menopausal complaints will lead to a smaller decrease in wellbeing when companies offer flexible work arrangements. Therefore, hypothesis 3 is:

Hypothesis 3a: The negative effect of the perceived menopausal complaints on engagement will be less strong when an organization offers flexible work arrangements.

Hypothesis 3b: The positive effect of the perceived menopausal complaints on the level of burnout will be less strong when an organization offers flexible work arrangements.

Supervisor Support

Supervisor support refers to showing concern for the feelings and needs of employees, encouraging employees to voice their own concerns, facilitating employee skill development and providing positive, chiefly informational feedback (Oldham and Cummings, 1996).

According to James, McKechnie and Swanberg (2011) employees who perceive their supervisor to be more supportive, who recognize them for their accomplishments and who are concerned about their wellbeing will be more engaged than their colleagues who do not experience this level of support. This effect was the strongest for the older employees in their study, those approaching retirement and those who were retirement-eligible (James et al, 2011). Schaufeli and Bakker (2004) found limited support that supervisory coaching had negative, but weak, relationships with the burnout dimensions *exhaustion* and *cynicism* and a weak positive relationship with the dimension *personal accomplishment*. These are all direct effects between supervisor support, burnout and engagement. This study will focus on a moderating effect of supervisor support for the relationship between menopausal complaints and the levels of burnout and engagement. This is a new topic in scientific research. Therefore, no evidence was found to predict this relationship. However, menopausal complaints can be compared to other health complaints people may have to cope with at work. Therefore, literature about rheumatoid arthritis was used to explain this relationship. In a study among Dutch employees with rheumatoid arthritis (RA) significant evidence has been found that employees with RA who perceive a lack of supervisor support will report a lower level of work ability compared to those who did not report such an adverse work characteristic (de Croon, Sluiter, Nijssen, Kammeijer, Dijkmans, Lankhorst & Frings-Dresen, 2005). RA patients are temporarily or permanently unable to meet job demands because of consequent limitations of their physical functioning (de Croon et al, 2005). It seems reasonable that supervisor support will also moderate the relationship between menopausal complaints and the levels of burnout and engagement for older women that have to cope with menopausal complaints. Therefore, hypothesis 4 is:

Hypothesis 4a: The negative effect of the perceived menopausal complaints on engagement will be less strong when the women experience more supervisor support.

Hypothesis 4b: The positive effect of the perceived menopausal complaints on the level of burnout will be less strong when the women experience more supervisor support.

Coworker support

According to Liao, Joshi and Chuang (2004) coworkers supports refers to the extent to which employees can count on their colleagues to support and to assist them when it is needed. The absence of coworker support may have negative consequences such as aggression, verbal abuse or stealing aimed at coworkers (Liao et al, 2004).

Schaufeli and Bakker (2004) confirmed a negative relationship between social support and the exhaustion and cynicism dimensions of burnout. There is a positive relationship between social support and personal accomplishment, which is the third dimension of burnout (Schaufeli & Bakker, 2004). Schaufeli and Bakker (2004) also studied the relationship between social support and engagement. Engagement was characterized by *vigor*, *dedication* and *absorption*. There is a positive relationship between these three characteristics of engagement and social support (Schaufeli & Bakker, 2004). De Croon et al (2005) found significant evidence for the relationship between a lack of coworker support and the work ability of RA patients. Gignac, Sutton and Badley (2007) studied job strain among employees with arthritis complaints. Participants in this study reported more job strain when perceived coworker support was absence.

Although there is no empirical evidence available for the following relationship at this moment, coworker support is just like supervisor support expected to moderate the relationship between menopausal complaints and the levels of burnout and engagement. Therefore, hypothesis 5 is:

Hypothesis 5a: The negative effect of the perceived menopausal complaints on engagement will be less strong when the women experience a higher amount of coworker support.

Hypothesis 5b: The positive effect of the perceived menopausal complaints on the level of burnout will be less strong when the women experience a higher amount of coworker support.

These hypotheses will lead to the following contextual model.

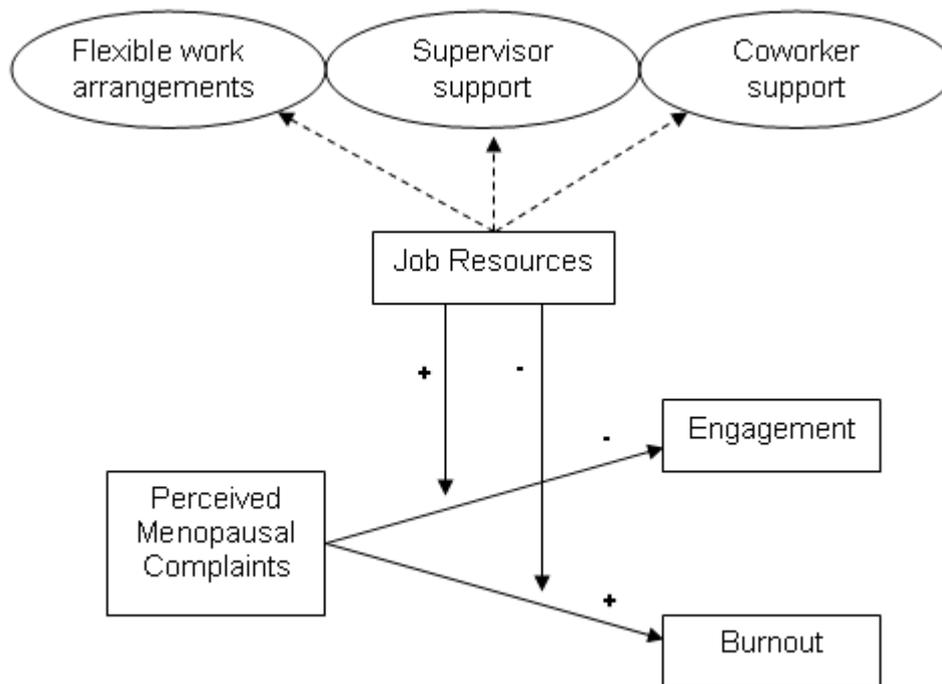


Figure 1. Contextual model

Research design and procedure

The cross sectional data in this study were gathered in cooperation with three other students from Tilburg University. The perceived menopausal complaints, the level of engagement, the level of burnout, the opportunity to work flexible, the average amount of working hours each week, the perceived level of supervisor support and the perceived level of coworker support were measured on the individual level with this questionnaire. The variables age, education, sector and menstruation cycle were taken into account as control variables.

Several strategies were used to gather the data. First of all, the personal and professional networks of the students were used to reach women between 40 and 65 years old. The questionnaire was spread digital and on paper. Secondly, forums and websites that women of this age often visit or which had a connection to the menopause were contacted. A hyperlink to the digital version of the questionnaire was posted on forums and websites during the data collection. Finally, questionnaires were spread at an event, 'The Libelle Summerweek' of a Dutch magazine for women between 28 and 55 years old and at Eindhoven airport.

Sample

The sample consisted of 405 women between 40 and 64 years old. The average age of these women was 52 years old (SD 5,141). Of these women, 42,2 percent was working in health care, 14,3 percent was working in education and 16,8 percent was working in the 'other services' sector. Only low percentiles (< 6%) were found in the other sectors. These results are in proportion to the all the women in the Netherlands according to the 'Emancipatiemonitor 2008' of Statistics Netherlands. According to Statistics Netherlands, eight of ten people working in healthcare are women and women represent 60 per cent of the people working in education (Merens & Hermans, 2009).

Most women were highly educated (40,3 %) or were vocational educated (41,6 %). The amount of working hours each week varied from 4 to 63 with a mean of 26 hours a week (SD 10,109). The average amount of colleagues was 20 (SD 24,179). With regard to flexible work arrangements, only 25,4 percent of these women worked from home and 37,8 percent of these women used flexible working hours. 26,4 Percent of the employers offered working from home and 44,9 percent offered flexible working hours.

Most women who participated in this research did not menstruate for the last year (57,6 %). 21,3 Percent had an irregular menstruation cycle and 21,1 percent was still having a regular menstruation cycle. Only 3,8 percent of these women were using medical hormonal treatment against menopausal complaints. Out of every 100 women, 86 of them did not use any hormonal anti-conception and only 7,1 percent had their uterus or womb removed.

A multivariate analysis of variance (MANOVA) was used to check whether the respondents that filled in a questionnaire on paper during 'The Libelle Summerweek', at Eindhoven airport or from the networks of the students differed from the women who were approached online. There were no significant differences between these groups. This means that the different approaches did not lead to variations in the levels of burnout or engagement.

Measures

The **perceived menopausal complaints** were measured with a 38 item questionnaire measuring different categories of possible menopausal complaints. This scale was a combination of several existing menopausal symptoms scales, such as: The Dutch version of the Menopause Rating Scale (MRS) (Heinemann, Potthoff & Schneider, 2003) the Green climacteric scale (Greene, 2008), the Women's Health Questionnaire (WHQ) (Borud, Martinussen & Eggen, 2009) and the Menopause-Specific Quality of Life (MENQOL) questionnaire (Hilditch, Lewis, Peter, Marls, Ross, Franssen, Guyatt, Norton & Dunn, 2006). The perceived menopausal complaints were measured with a question about the perceived burden every symptom caused with a 5 point Likert scale answering category varying from

not a burden at all to a very serious burden. The scale consisted out of 6 factors: A depressed mood, vasomotor complaints, fear, changes in sexuality, physical complaints and sleeping problems. The factor-analysis can be found in Table 1. The reliability of the total scale was good with a cronbach's alpha of 0,965. The cronbach's alphas of the factors varied from 0,785 to 0,959.

Table 1
Factor analysis Perceived Menopausal Complaints

| | Depressed Mood | Sleeping Problems | Changes in sexuality | Physical complaints | Fear | Vasomotor Complaints |
|--|----------------|-------------------|----------------------|---------------------|------|----------------------|
| Mood swings | ,869 | | | | | |
| Feeling unhappy or depressed | ,843 | | | | | |
| Lost interest in things | ,792 | | | | | |
| More irritable than normal | ,791 | | | | | |
| Crying spells | ,724 | | | | | |
| Feeling nervous | ,679 | | | | | |
| Feeling life is not worth living | ,678 | | | | | |
| Being more clumsy than usual | ,667 | | | | | |
| Decrease in prestatations | ,662 | | | | | |
| Difficulty in concentrating | ,638 | | | | | |
| Shortage of motivation | ,633 | | | ,325 | | |
| Poor memory | ,590 | | | | | |
| Feeling tense | ,581 | | | | | |
| Feeling tired or lacking energy | ,580 | | | | | |
| Agressive feelings | ,550 | | | | | |
| Having difficulties with sleeping all night long | | ,877 | | | | |
| Feeling restless and unable to keep still | | ,835 | | | | |
| Difficulties in getting off to sleep | | ,832 | | | | |
| Waking up early | | ,816 | | | | |
| Loss of interest in sex | | | ,863 | | | |
| Changing sexual activity | | | ,830 | | | |
| Avoiding intimacy | | | ,661 | | | |
| Dry feeling in the vagina | | | ,497 | | | |
| Loss of feelings in hands or feet | | | | ,726 | | |
| Parts of body feel numb or tingling | | | | ,629 | | |
| Problems with holding up urine | | | | ,625 | | |
| Passing urine more than usual | | | | ,608 | | |
| Muscle and joint pains | | | | ,521 | | |
| Headache | | | | ,375 | | |
| Feeling anxious when going out of the house on my own | | | | | ,613 | |
| Panic attacks | | | | | ,606 | |
| Feeling frightened or panic feelings for apparently no reason at all | ,339 | | | | ,600 | |
| Feeling sick or nauseous | | | | | ,552 | |
| Having dizzy spells | | | | ,344 | ,525 | |
| | | | | | ,341 | ,328 |

| | | |
|---------------------------|------|------|
| Quick or strong heartbeat | | |
| Hot flushes | | ,718 |
| Sweating more than usual | | ,647 |
| Night sweats | ,312 | ,643 |

Engagement was measured with the Utrechtse Bevlogenheid Schaal (UBES) (Schaufeli & Bakker, 2004); this is the Dutch version of the Utrechtse Work Engagement Scale: UWES. The UBES is a 15-item scale with 7 point Lickert scale answering categories, ranging from never to daily. An example question is: 'My work inspires me'. One item (When I am at work I forget all the things around me) was removed from the scale with a Cronbach's alpha if item deleted higher than the Cronbach's alpha and a corrected item total correlation below .3. Therefore, only 14 items remained. The scale consisted out of 2 factors: Absorption and dedication. This is not in line with the theory about engagement that suggested three factors. The reliability of the scale was good with a Cronbach's alpha of 0,928. The Cronbach's alphas of the two factors were 0,910 and 0,844.

Burnout was measured with the Utrechtse Burnout Schaal (UBOS) by Schaufeli and van Dierendonck (2000). The UBOS is a 15-item scale with 7 point Lickert scale answering categories, ranging from never to always. An example question is: 'I feel mentally exhausted because of my job'. The scale consisted out of 3 factors: Exhaustion, reduced personal accomplishment and cynicism. This is in line with existing literature about burnout. The reliability of the scale was good with a Cronbach's alpha of 0,862 and the Cronbach's alphas of the factors varied from 0,682 to 0,875.

Flexible work was divided in 'flexible working hours', 'working from home' and 'hours worked each week'. The first two variables were measured with one question. This question measured whether the respondents actually worked flexible or worked from home. 'Hours worked each week' was measured with one open ended question about the average amount of hours worked each week.

Supervisor support was measured by a Dutch version of the 4-item "supervisor support" scale from Caplan (1975). The original scale had a yes/no answering category. In this study, the answering scale was adjusted to a 5 point Lickert scale, ranging from totally agree to totally disagree. An example question is: 'When things get tough at work, I can always rely on my supervisor to help me solve the problem'. The scale did not consist out of multiple factors and the reliability of the scale was good with a cronbach's alpha of 0,958.

Coworker support was measured by a Dutch version of the 4-item 'coworker support' scale from Caplan (1975). The original scale had a yes/no answering category. In this study, the answering scale was adjusted to a 5 point Lickert scale, ranging from totally agree to totally disagree. An example question is: 'My colleagues will go out of their way to

support me in my work'. The scale did not consist out of multiple factors and the reliability of the scale was good with a Cronbach's alpha of 0,952.

Control variables were also taken into account in this study. In order to get an impression of the sample the control variables age, sector, education and menstruation cycle were measured.

Preliminary analysis

The control variables were entered in a multivariate analysis of variance (MANOVA) to test whether changes in the independent (control) variables had significant effects on the dependent variables burnout and engagement. There were no significant differences found for age, education and menstruation cycle with regard to burnout and engagement. This means that variations in age, education and menstruation cycle did not influence the level of burnout or engagement of the women in this study. However, it showed significant differences between the sectors health care and industry with engagement as dependent variable. Therefore, a dummy variable with these two sectors (Industry = 0, health care = 1) was entered in the regression analyses with engagement as dependent variable. The other control variables were no longer taken into account during the analyses.

A scatter plot was used to check for violation of the assumptions of linearity and homoscedasticity (Pallant, 2007). These assumptions were not violated. In order to reveal potential multicollinearity problems and to determine the strength and the direction of the linear relationships between the studied variables, Pearson correlation analysis was used. As can be seen in Table 2, correlations between engagement and burnout are very high. Since engagement and burnout are both dependent variable and were not entered in the same regression analysis this is not a problem. Correlations between supervisor support and co-worker support were also very high. Therefore, these variables were not tested in the same regression analysis while testing the direct and interaction effects. These variables were only entered in the same regression analysis in order to find out which of them was the strongest predictor. According to the analyses, multicollinearity occurred with the interaction variables. This can be explained by the fact that every interaction variable exists out of two other variables and therefore the correlations between the interaction variable and the other variable is very high.

Table 2
Correlation Matrix

| | Mean | SD | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. | 11. | 12. | 13. | 14. |
|--|--------|--------|----|---------|---------|--------|--------|---------|---------|---------|--------|--------|---------|--------|---------|---------|
| 1. Burnout | 2,698 | 0,889 | 1 | -.738** | ,393** | -.056 | -.075 | 0,059 | -.330** | -.226** | -.004 | ,032 | 0,375** | ,060 | 0,160** | -.194** |
| 2. Engagement | 5,217 | 1,004 | | 1 | -.277** | ,112** | ,067 | 0,021 | ,284** | ,205** | ,080 | -.016 | -.291** | -.022 | -.102** | ,175** |
| 3. Perceived menopausal complaints (PMC) | 2,004 | 0,776 | | | 1 | -.031 | ,022 | 0,090 | -.190** | -.123** | ,161** | ,305** | ,713** | ,642** | ,753** | -.055 |
| 4. Working from home | . | . | | | | 1 | ,469** | 0,137 | -.014 | -.052 | ,918** | ,406** | -.082 | -.053 | -.079 | ,030 |
| 5. Flexible working hours | . | . | | | | | 1 | 0,198** | ,027 | -.036 | ,444** | ,894** | -.074 | ,022 | -.024 | -.073 |
| 6. Hours worked each week | 25,927 | 10,109 | | | | | | 1 | -.054 | -.165* | ,042 | -.001 | 0,738** | 0,032 | -.033 | -.026 |
| 7. Supervisor support | 3,604 | 1,221 | | | | | | | 1 | ,688** | -.055 | -.025 | -.314** | ,575** | ,268** | ,001 |
| 8. Coworker support | 3,793 | 1,100 | | | | | | | | 1 | -.085 | -.075 | -.261* | ,374** | ,510** | ,055 |
| 9. Work from home * PMC | 0,499 | 0,932 | | | | | | | | | 1 | ,487** | ,438 | ,073 | ,057 | -.112 |
| 10. Flexible working hours * PMC | 0,765 | 1,099 | | | | | | | | | | 1 | ,398 | ,222** | ,195** | -.189 |
| 11. Average amount of hours worked each week * PMC | | | | | | | | | | | | | 1 | | ,257* | . |
| 12. Supervisor support * PMC | 7,051 | 3,361 | | | | | | | | | | | | 1 | ,821** | -.055 |
| 13. Coworker support * PMC | 7,480 | 3,426 | | | | | | | | | | | | | 1 | -.006 |
| 14. Sector | . | . | | | | | | | | | | | | | | 1 |

Notes: **: p<,005 *:p<,05

Model analysis

In order to test the five hypotheses, stepwise regression analyses were used. The sequential regression analyses were conducted in three steps. In the first step the perceived menopausal complaints were entered, the direct effects of the interaction variables were entered in step two and in the final step the interaction variables were entered. The R square change and the sig in the ANOVA table were interpreted in order to find out whether the interaction effect significantly improved the model. Flexible hours and remote working both were recoded into dummy variables, with women who did not work flexible as '0' and women who worked flexible as '1'.

Results

As was hypothesized in hypothesis 1 and 2, the results show that women who experience more menopausal complaints will have a lower level of engagement ($\beta = -.296$, $p < .005$) and a higher level of burnout ($\beta = .400$, $p < .005$). Therefore, hypothesis 1 and hypothesis 2 were confirmed.

Hypothesis 3a was tested in three stepwise regression analyses that excised out of three models. Flexible working hours, working from home and average amount of hours worked each week were first tested all together in one analysis, as direct and as interaction effects, and after that they were tested separately in three analyses.

The regression analyses did not show any significant direct or interaction effects. This means that flexible work arrangements did not have a relationship with engagement and hypothesis 3a was rejected. Testing the three dimensions of flexible work arrangements separately also did not show any significant direct or interaction effects.

Hypothesis 3b was tested in the same way as 3a. Only the first step of each regression analysis turned out to be significant. This showed the direct effect between perceived menopausal complaints and burnout. No direct or interaction effects between flexible working arrangements and burnout were found. Therefore, hypothesis 3b is rejected.

Hypothesis 4a was also tested with a stepwise regression analyses. This analysis tested the direct effects of perceived menopausal complaints and supervisor support and the interaction effect of perceived menopausal complaints * supervisor support on engagement.

Table 3:

Stepwise regression analysis with supervisor support and engagement

| | β | β | β | B |
|---------------------------------------|----------------|----------------|----------------|---------|
| | <i>Model 1</i> | <i>Model 2</i> | <i>Model 3</i> | |
| Constant (B) | 5,967** | 4,854** | 5,307** | 5,307** |
| Perceived Menopausal Complaints (PMC) | -,287** | -,234** | -,406* | -,517* |
| Sector | | 0,154* | ,155* | ,341* |
| Supervisor Support | | ,243** | ,522 | ,070 |
| Supervisor support x PMC | | | ,222 | ,063 |
| R^2 | 0,082 | ,162 | ,166 | |
| ΔR^2 | ,082** | ,080** | ,004 | |
| F | 18,968 | 13,528 | 10,415 | |

Notes **: $p < ,005$ *: $p < ,05$ two-sided t-test

As can be seen in Table 3, entering the direct effect of supervisor support and the control variable sector in model 2 improved the R Square significantly ($\Delta R^2 = ,080$, $p < ,005$). This means that women who experience more supervisor support have a higher level of engagement ($\beta = ,243$, $p < ,005$). Women who worked in health care had a higher level of engagement than women who worked in industry ($\beta = ,154$, $p < ,005$). In the third model, the interaction term was added. This did not lead to a significant improvement. Therefore hypothesis 4a was rejected; this means that supervisor support does not have a moderating effect on the relationship between perceived menopausal complaints and engagement. However, supervisor support did moderate the relationship between the 'physical complaints' ($\Delta R^2 = ,022$, $p < ,05$) and 'sleeping problems' dimensions of perceived menopausal complaints ($\Delta R^2 = ,022$, $p < ,05$) and the 'dedication' dimension of engagement. The negative relationships between physical complaints and sleeping problems and dedication was weaker for women who experienced a high level of supervisor support than for women who perceived a low level of supervisor support.

The relationship between perceived menopausal complaints, supervisor support and burnout and the interaction effect was tested in the same way, these results can be found in Table 4.

Table 4

Stepwise regression analysis with supervisor support and burnout

| | β | β | β | B |
|---------------------------------------|----------------|----------------|----------------|---------|
| | <i>Model 1</i> | <i>Model 2</i> | <i>Model 3</i> | |
| Constant (B) | 1,757** | 2,561** | 2,119** | 2,119** |
| Perceived Menopausal Complaints (PMC) | ,470** | ,355** | ,541** | ,632** |
| Supervisor Support | | -,262** | -.090 | -,067 |
| Supervisor support x PMC | | | -,240 | ,064 |
| R^2 | 0,162 | ,228 | ,233 | |
| ΔR^2 | ,162 ** | ,066** | ,005 | |
| F | 62,731 | 47,901 | 32,683 | |

Note: **: $p < ,005$ *: $p < ,05$ two-sided t-test

Only the first two models turned out to be significant. This means that there are direct effects between perceived menopausal complaints, supervisor support and burnout. Women who experience more supervisor support will have a lower level of burnout. The interaction effect was not confirmed. Therefore, hypothesis 4b was rejected. Supervisor support does not moderate the relationship between perceived menopausal complaints and burnout. However, supervisor support did moderate relationships between dimension of perceived menopausal complaints and (dimensions of) burnout. Supervisor support moderated the relationships between physical complaints and burnout ($\Delta R^2 = ,014$, $p < ,05$), physical complaints and the 'reduced personal accomplishment' dimension of burnout ($\Delta R^2 = ,016$, $p < ,05$), sleeping problems and exhaustion ($\Delta R^2 = ,014$, $p < ,05$), changes in sexuality and exhaustion ($\Delta R^2 = ,014$, $p < ,05$), physical complaints and exhaustion ($\Delta R^2 = ,013$, $p < ,05$) and fear and exhaustion ($\Delta R^2 = ,011$, $p < ,05$). The relationship between these dimensions of perceived menopausal complaints and (dimensions of) burnout was less strong for women who perceived a high level supervisor support than for their colleagues who did not perceive supervisor support.

In order to test hypotheses 5a and 5b, the same models were produced with coworker support as independent variable. First, engagement was the dependent variable, these results can be found in Table 5.

Table 5

Stepwise regression analysis with coworker support and engagement

| | β | β | β | B |
|---------------------------------------|----------------|----------------|----------------|---------|
| | <i>Model 1</i> | <i>Model 2</i> | <i>Model 3</i> | |
| Constant (B) | 5,995** | 5,076** | 6,005** | 6,005** |
| Perceived Menopausal Complaints (PMC) | -,293** | -,268** | -,638** | -,820** |
| Sector | | ,133* | ,132* | ,291* |
| Coworker Support | | ,182** | -,087 | -,080 |
| Coworker support x PMC | | | ,449 | ,128 |
| R^2 | ,086 | ,139 | ,151 | |
| ΔR^2 | ,086** | ,053** | ,013 | |
| F | 20,348 | 11,501 | 9,498 | |

Notes: **: $p < ,005$ *: $p < ,05$ two-sided t-test

Perceived menopausal complaints, coworker support and sector are all significant predictors of engagement. The higher the level of coworker support, the higher the level of engagement will be ($\beta = ,182$, $p < ,005$) and women who work in healthcare have a higher level of engagement than women who work in industry ($\beta = ,133$, $p < ,05$). The interaction effect did not turn out to moderate the relationship between perceived menopausal complaints and engagement. This means that hypothesis 5a is rejected. However, coworker support moderated the relationship between the 'sleeping problems' ($\Delta R^2 = ,027$, $p < ,05$) 'changes in sexuality' ($R^2 = ,020$, $p < ,05$) and 'physical complaints' ($R^2 = ,018$, $p < ,05$) dimensions of perceived menopausal complaints and the 'dedication' dimension of engagement. This means that the negative effect of sleeping problems, changes in sexuality and physical complaints on the 'dedication' dimension of engagement is less strong for women who experience more coworker support than for those who do not perceive coworker support. The level of dedication of women who perceive coworker support will not decrease as much as the dedication level of the women who do not perceive coworker support.

Hypothesis 5b was tested with burnout as the dependent variable. Table 6 shows the results of this stepwise regression analysis.

Table 6

Stepwise regression analysis with coworker support and burnout

| | β | β | β | B |
|---------------------------------------|----------------|----------------|----------------|---------|
| | <i>Model 1</i> | <i>Model 2</i> | <i>Model 3</i> | |
| Constant (B) | 1,765** | 2,365** | 1,534** | 1,534** |
| Perceived Menopausal Complaints (PMC) | ,469** | ,448** | ,754** | ,883** |
| Coworker Support | | -,148** | ,099 | ,080 |
| Coworker support x PMC | | | -,458* | -,121* |
| R | ,160 | ,193 | ,207 | |
| ΔR^2 | ,160** | ,033** | ,014* | |
| F | 62,762 | 39,248 | 28,407 | |

Notes: **: $p < ,005$ *: $p < ,05$ two-sided t-test

As can be seen in Table 6, all the models turned out to be significant. This means that there are direct effects between perceived menopausal complaints, coworker support and burnout. Women who experience more coworker support will have a lower level of burnout. In the third model, the interaction effect was entered. This led to a small, but significant improvement in R Square ($\Delta R^2 = ,011$, $p < ,05$). Therefore, hypothesis 5b, 'the positive effect of the perceived menopausal complaints on the level of burnout will be less strong when the women experience a higher amount of coworker support' was confirmed. This means that the effect of perceived menopausal complaints on burnout is less strong for women who experience more coworker support. This can be seen in Figure 2.

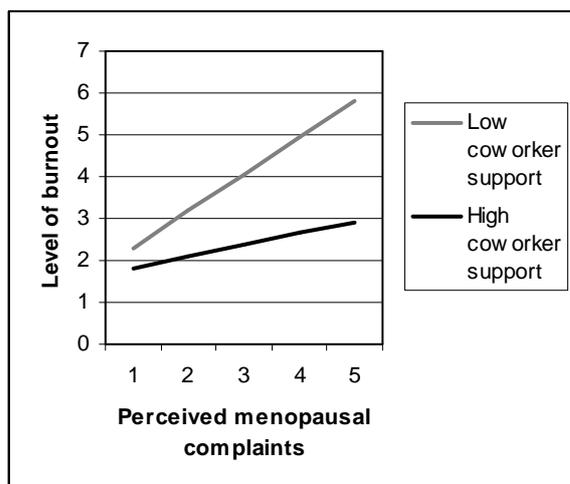


Figure 2. Moderating effect of coworker support

This effect was also tested for different dimensions of the perceived menopausal complaints scale. Coworker support had a moderating effect on the relationship between sleeping problems and burnout ($\Delta R^2=.013, p<.05$), physical complaints and burnout ($\Delta R^2=.021, p<.005$) and vasomotor complaints and burnout ($\Delta R^2=.013, p<.05$). Coworker support also had a moderating effect on the relationship between changes in sexuality and the 'reduced personal accomplishment' dimension of burnout ($\Delta R^2=.011, p<.05$), physical complaints and reduced personal accomplishment ($\Delta R^2=.020, p<.05$), sleeping problems and exhaustion ($\Delta R^2=.019, p<.05$) and physical complaints and exhaustion ($\Delta R^2=.013, p<.05$). The positive relationships between dimensions of complaints and (dimensions of) burnout were less strong for women who perceived more coworker support than for women who did not perceive coworker support.

Supervisor support and coworker support were also entered in one stepwise regression analysis for burnout and engagement. Results showed that supervisor support was the only significant predictor of engagement and burnout in these analyses. This means that supervisor support is a stronger predictor of burnout and engagement than coworker support.

Finally, the six dimensions of perceived menopausal complaints were entered in a two regression analyses with engagement and burnout as dependent variables. The 'depressed mood' dimension of perceived menopausal complaints was the strongest predictor for as well burnout as engagement.

Discussion

The goal of this research was to find out whether perceived menopausal complaints negatively affected women's well-being at work and to test several job resources that can diminish this negative effect.

This research confirmed that perceived menopausal complaints decrease the level of engagement and increase the level of burnout. However, the moderating effect of job resources was only partial confirmed. The higher the level of coworker support, the weaker the relationship between perceived menopausal complaints and burnout was. Supervisor support, flexible working hours and working from home did not show any moderating relationships. Coworker support was also unable to moderate the relationship between perceived menopausal complaints and engagement. However, supervisor support and coworker support will directly lead to a lower level of burnout and a higher level of engagement.

Explorative investigation, with regard to the different dimension of the dependent variables and the perceived menopausal complaints scale, showed that supervisor support and coworker support did moderate relationships between these dimensions. Supervisor

support moderated the relationships between physical complaints, sleeping problems and the 'dedication' dimension of engagement. Supervisor support also moderated the relationships between sleeping problems, changes in sexuality, fear and the 'exhaustion' dimension of burnout. Finally, supervisor support did not only moderate the relationship between physical complaints and the burnout scale. It also moderated the relationships between physical complaints and two of the burnout dimensions, 'reduced personal accomplishment' and 'exhaustion'.

Coworker support moderated the relationships between sleeping problems, changes in sexuality, physical complaints and the 'dedication' dimension of engagement. The relationships between sleeping problems, physical complaints and vasomotor complaints and the burnout scale were also moderated by coworker support. Coworker support also moderated the relationships between changes in sexuality, physical complaints and the 'reduced personal accomplishment' dimension of burnout. Finally, the relationships between physical complaints, sleeping problems and the 'exhaustion' dimension of burnout were moderated through coworker support.

The moderating effects of coworker support and supervisor support mean that the relationships between perceived menopausal complaints and (the dimensions of) burnout or engagement are less strong for women who perceive high support than for women who perceive low support. This explorative investigation shows that physical complaints are an important dimension of perceived menopausal complaints that is often moderated by coworker support or supervisor support. Relationships with the 'dedication' dimension of engagement as the dependent variable are also often moderated. Dimensions that were not moderated at all are the 'absorption' dimension of engagement and the 'cynicism' dimension of burnout. This means that job resources do not weaken the relationships between perceived menopausal complaints and absorption or cynicism.

Interpretation

These results mean that perceived menopausal complaints have a negative influence on employee well-being, as was expected in the introduction. Nisar and Sohoo (2009) also found that the presence of menopausal complaints was overall associated with a decrease in the QoL of their study population. The menopausal complaints that women have to deal with, also seem to be a heavy burden for women at work. It is very important that the menopause is not underestimated or ignored at the workplace.

Coworker support seemed to be the only hr practice that moderated the relationship between perceived menopausal complaints and burnout. This finding is in line with the expectations that coworker support can increase the work ability of employees that have to deal with health complaints (De Croon et al, 2005).

However, coworker support and supervisor support did not moderate the relationships between perceived menopausal complaints and engagement. Supervisor support also did not moderate the relationship between perceived menopausal complaints and burnout. A possible reason for these results is that the supervisor support and coworker support scales were not based on menopausal support but on social support in general. It is possible that women feel supported in work-related issues but do not feel supported with their menopausal complaints through their colleagues or supervisor. This was not measured in this study. Women who perceived coworker or supervisor support at work were more engaged and had a lower level of burnout, but it is possible that this support did not help them to cope with their menopausal complaints. Another possible explanation is that the menopause is not a subject that is often talked about at the workplace. When coworkers or supervisors are not aware of the problems, they are not aware of the support they can offer. Therefore, supervisor and coworker support may stay superficial and therefore does not help women in the menopause to completely cope with menopausal complaints.

An interesting result is that coworker support moderated the relationship between perceived menopausal complaints and burnout, and supervisor support did not. However, supervisor support was a stronger predictor of engagement and burnout than coworker support. This could mean that supervisor support has got a stronger relationship with general employee outcomes, but coworker support was able to moderate the relationship between perceived menopausal complaints and burnout. Coworker support also moderated more relationships on the dimension-level than supervisor support. A possible explanation for this finding is that coworkers are often working on the same level and this contact is more frequent. Therefore it is possible that the colleagues can support these women with their complaints better than a supervisor can. Besides this, supervisor support and coworker support are also different variables that often lead to different employee outcomes.

Flexible work arrangements did not moderate the relationships between perceived menopausal complaints, burnout and engagement. Relationships between flexible work arrangements, burnout and engagement were also not found. A possible explanation for these results is that women who work flexible or from home still experience menopausal complaints while working, even though they are not "at work". Another possible explanation is that some complaints, for example hot flushes, will appear unannounced and very sudden. It is possible that women who sometimes work from home or work flexible hours still experience menopausal complaints in the workplace.

The direct relationships that were confirmed but not hypothesized between supervisor support, coworker support, engagement and burnout are not surprisingly. These relationships have already been tested several times in literature.

Limitations

This research had several limitations. First, it was a cross-sectional study. All the variables were assessed at the same time. Therefore, causal interpretations could not be demonstrated with these data. This limitation might decrease with a longitudinal study (Van der Heijden et al., 2009). A longitudinal research design will increase the generalizability of the outcomes and conclusions of the study.

Second, the sample consisted out of 405 women between 40 and 65 years old. Increasing the sample will increase the quality of the analyses.

The length of the questionnaire was another weakness in this research. It took the respondents a very long time to fill in the questionnaire. The scales at the end of the questionnaire had a lot of missing values. The question about the average amount of working hours each week was added to the questionnaire in a later stage, therefore the amount of women who filled in this question was only 199.

Finally, the supervisor support and coworker support scale were general scales and did not measure menopausal support. Therefore, relationships were found between these scales and general outcomes such as burnout and engagement but they did not moderate all the relationships between menopausal complaints and employee well-being.

Implications

A few suggestions for future research on menopausal complaints at work can be made. First, to demonstrate causality using a longitudinal study is recommended (Van der Heijden et al., 2009).

Studying the effect of perceived menopausal complaints in the workplace is a rather new field in science. This study showed that perceived menopausal complaints lead to a lower level of employee well-being. However, little is known about job resources that can diminish this effect. Only coworker support seemed to moderate the relationship. Because a lot is undiscovered in this area future research is needed. Developing and testing job resources that are aimed at moderating the relationship between perceived menopausal complaints and employee well-being is an important field for future research. This research confirmed the need for these job resources but unfortunately general job resources did not seem to be sufficient. It is also important to further explore the relationships between dimensions of perceived menopausal complaints, burnout and engagement. The relationships between the scales were hardly moderated by the job resources in this study. However, a lot of moderating effects were found for the relationships between the several dimensions. Dedication was often moderated by supervisor and coworker support. This means that a high level of social support weakens the negative relationship between dimensions of perceived menopausal complaints and dedication. The relationship between

physical complaints and dimensions of burnout and engagement was also often moderated by social support. These results show potential for the moderating effect of job resources on relationships between perceived menopausal complaints and employee outcomes. Therefore, more research is needed on this topic.

This research also has important implications for the work field. Menopausal complaints are often ignored at the workplace. However, menopausal complaints have shown to decrease employee well-being. An increase in burnout and decrease in engagement can have a lot of negative consequences for companies. Burnout is, for example, very costly for both employers as the employees (Cordes & Dougherty, 1993) and it sometimes results in employee turnover (Maslach & Goldberg, 1998).

Coworker support and supervisor support both reduce burnout and increase engagement. This means that social support is an important job resource at the workplace. However, social support also moderated the relationships between dimensions of perceived menopausal complaints and dimensions of burnout and engagement. This shows the potential for social support to function as an important source of motivation for women who perceive menopausal complaints. Social support is able to decrease the negative effect on employee well-being and to increase employee well-being directly. But as long as the core problem, the decrease in well-being because of menopausal complaints, is not solved, this direct effect will not be enough. A possible way of solving this problem is to increase awareness about the menopause in the workplace. When colleagues and supervisors are aware of the complaints and the negative influence on employee well-being they can support their colleagues who suffer from menopausal complaints.

Conclusion

During this research a lot of women were very relieved to hear that the menopause finally was recognized at the workplace, as well as in science. Half a year ago, little was known about the negative effects of women who perceived menopausal complaints and their well-being. This research recognized the impact of these menopausal complaints on burnout and engagement. However, less is known about job resources that can help women to cope with these menopausal complaints. An interesting field of study has been discovered. At this moment it is very important that the menopause receives a lot more attention than it did in the past. Until now, women were on their own in this process. Therefore, the final suggestion of this study is: Stop ignoring, start supporting!

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