

ORIGINAL STUDY

Climacteric status at age 46 is associated with poorer work ability, lower 2-year participation in working life, and a higher 7-year disability retirement rate: a Northern Finland Birth Cohort 1966 study

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Abstract

Objective: To study the association between an advanced climacteric status at 46 years of age and current perceived work ability, the consequent 2-year accumulation of disability and unemployment days, and the 7-year incidence of disability pensions.

Methods: Study participants (n = 2,661) were recruited from the Northern Finland Birth Cohort 1966 study's 46-year follow-up in 2012. The participants' perceived work ability was investigated using the Work Ability Score (0-7 = poor vs 8-10 = good), along with potential covariates. Data concerning their consequent disability days, unemployment days, and disability pensions were collected from national registers. The association between their climacteric status at age 46 years, work ability, and working life participation was assessed using regression models.

Results: The climacteric women were more often smokers and more often had a lower level of education. The odds ratio for poor perceived work ability was 1.41 (95% CI, 1.06-1.87), and the incidence rate ratios for disability and unemployment days during the 2-year follow-up were 1.09 (95% CI, 1.07-1.11) and 1.16 (95% CI, 1.14-1.18), respectively, for the climacteric women compared with the preclimacteric women in models adjusted for smoking and education. The 7-year hazard ratio for disability pensions was 1.72 (95% CI, 1.02-2.91) for the climacteric women.

Conclusions: An earlier menopausal transition is associated with poorer perceived work ability, and it predicts lower recorded work participation and a higher disability pension rate in subsequent years.

Key Words: Climacteric status – Disability – Early menopause – Menopause – Unemployment – Work ability.

Menopause is a natural part of women's lives,¹ with symptoms lasting approximately 7 years.² Therefore, evaluating its effects on public health and functioning in working life is valuable.³ The mean age for menopause in Western countries is 51 years.⁴ Women who undergo menopause before the age of 45 years are categorized as undergoing

early menopause (EM),^{5,6} which affects 5% to 10% of all women.⁷⁻⁹ At this age, women are expected to have almost 20 years of their working life remaining. Therefore, we find studying the associations between an earlier climacteric transition, perceived work ability, and the long-term working life participation of these women particularly important.

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Author Contributions: T.S., S.S., P.P., M.N., and L.A.-M. conceived of and designed the study. T.S., S.S., and P.P. carried out the study's statistical analyses. All the authors analyzed and interpreted the data, drafted the paper, critically revised the paper for important intellectual content, and took responsibility for the integrity of the data and the accuracy of the data analysis.

Continued on next page

During and after the menopausal transition, approximately 80% of women suffer from hot flashes and night sweats,¹⁰ which have been associated with an impaired quality of life.¹¹ Menopause also adversely affects overall health more comprehensively; estrogen deficiency has been associated with an increased risk of cardiovascular disease and osteoporosis,^{6,9} unfavorable changes in body composition,^{12,13} and musculoskeletal pain.¹⁴ In our previous studies, we found that a more advanced climacteric status in 46-year-old women was associated with unfavorable changes in their cardiovascular risk profiles and insulin sensitivity.^{15,16}

To date, a few studies have shown that menopausal symptoms may be negatively associated with work ability and well-being at work,^{3,17-19} whereas other studies have reported the need for further research on this subject.¹⁹⁻²¹ However, most previous studies on menopause and work ability have concentrated on women undergoing menopause within the average range of 45 to 55 years. The only exception was a longitudinal survey-based study in the United Kingdom that also focused on younger women.²² It showed that menopause before 45 years of age was associated with a 9-percentage-point reduction in labor market participation once these women entered their 50s compared with women who did not experience EM. Although replications of this finding are needed, no previous studies based on registered data are available.

In this cohort study, we investigated how women's advanced climacteric status at 46 years of age was associated with their perceived work ability and registered working life participation during subsequent years. Our specific aims were to examine whether a more advanced climacteric status at age 46 years was associated with impaired self-reported work ability, a higher number of unemployment and disability days during a 2-year follow-up concerning nationally registered data, and, finally, a higher incidence of registered disability pensions during a 7-year follow-up period.

METHODS

Study population

The participants in this study were members of the Northern Finland Birth Cohort 1966 (NFBC1966), which originally included 12,058 live-born children: 5,890 girls and 6,168 boys.²³

Our specific focus was NFBC1966's 46-year follow-up study, which took place in 2012. Of the 5,123 Finnish women targeted in the study, 3,848 (68%) returned surveys, and 3,263 (64%) participated in clinical examinations.

We included women ($n = 2,661$ [52%]) who had participated in every necessary part of the 46-year follow-up study for the purpose of defining their climacteric status. They consented to

the linking of their data with precise information concerning their consequent disability days, unemployment days, and disability pensions obtained via the Social Insurance Institution (SII) and Finnish Center for Pensions (FCP) registries (Fig. 1).

Group division

The study's participants were divided into two groups, depending on their follicle-stimulating hormone (FSH) level and menstrual history at 46 years of age: climacteric women and preclimacteric women. The group of climacteric women included women who were experiencing late perimenopause or postmenopause. The group division was based on the Stages of Reproductive Aging Workshop (STRAW +10) staging system for reproductive stages.²⁴ We focused primarily on questionnaire data concerning the participant's last menstruation (>60 days previously for climacteric women) and FSH levels from blood samples (≥ 25 IU/L for climacteric women). Women ($n = 79$) who had undergone hormone therapy (HT) 1 year before the 46-year follow-up study, according to the medicine reimbursement registry maintained by the SII, were automatically included in the climacteric group. Women who were using combined hormonal contraceptives containing estrogen and progesterone or receiving tamoxifen treatment were excluded, as were women whose information concerning FSH levels, HT use, or menstrual cycles was missing or discrepant. Women using progestin-only treatment were grouped based on their FSH levels (Fig. 1).

Outcomes

Self-reported work ability at 46 years of age

To evaluate the study participants' perceptions of their work ability, we utilized the Work Ability Score.^{25,26} The participants scored their current perceived work ability on a 0- to 10-point scale. A score of 0 indicated the complete inability to work, and a score of 10 indicated the best work ability they had experienced. Perceived work ability was then categorized via dichotomizing the scores; 0 to 7 indicated poor work ability, and 8 to 10 indicated good work ability.

Registered unemployment days and disability days

The FCP maintains registries on working life participation and earnings-based long-term disability benefits. Meanwhile, the SII keeps records on non-earnings-based disability pensions and sickness absences that exceed the deductible periods of 1 + 9 weekdays for employers and 1 + 3 weekdays for entrepreneurs. In our study, we utilized registry data to define participants' unemployment days and any type of medically certified disability days exceeding the aforementioned deductible periods

Data Availability Statement: The Northern Finland Birth Cohort (NFBC) data are available from the University of Oulu, Infrastructure for Population Studies. Permission to use the data for research purposes can be sought via an electronic material request portal. Our data use followed the EU general data protection regulation (679/2016) and the Finnish Data Protection Act. The use of personal data was based on cohort participants' written, informed consent during their latest follow-up study, which may limit such data's use. Please contact the NFBC project center (NFBCprojectcenter@oulu.fi) and visit the cohort Website (www.oulu.fi/nfbc) for more information.

Ethical Approval: This study was based on previously collected data. The Ethical Committee of the Northern Ostrobothnia Hospital District approved the

46-year follow-up study of NFBC1966 (#94/2011). All the study participants consented in writing to the use of their data for scientific purposes.

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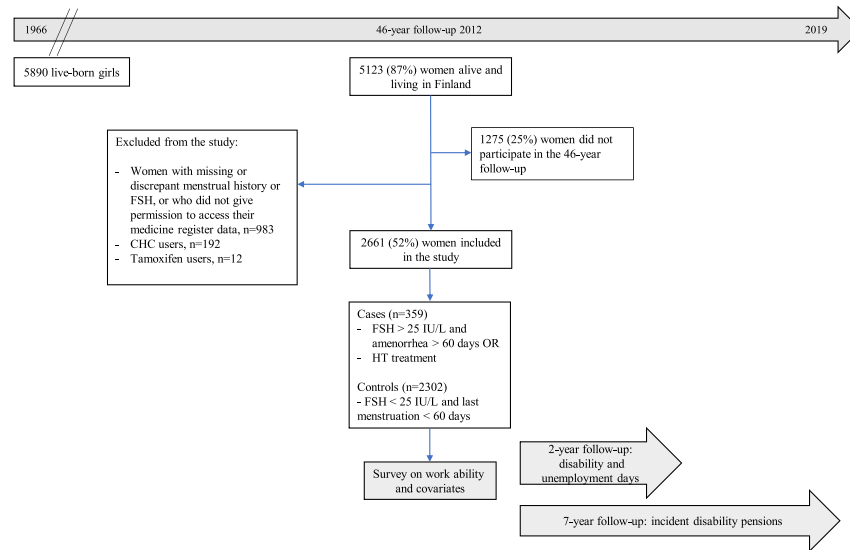


FIG. 1. Flowchart depicting the study population. CHC, combined hormonal contraceptive; FSH, follicle-stimulating hormone; HT, hormone therapy; NFBC, Northern Finland Birth Cohort.

during the individually determined 2-year periods (730 days) that started the day after the 46-year-follow-up study.

Registered disability pensions

Information about disability retirement among the study participants was retrieved from the FCP and SII. As a rule, following the Finnish health insurance law, the SII first pays a sickness allowance for 1 year. After this period, a partial or full-time disability pension can be granted either permanently or for a fixed period. In any case, disability pensions are issued for long-term disabilities with strict criteria. We recorded the dates of all new disability pension decisions starting from the date of the 46-year follow-up study until the end of the year 2019, when the participants were about 53 years old. Thus, this follow-up period lasted approximately 7 years.

Covariates

The 46-year follow-up study comprised a wide range of potential covariates. Health-related variables were derived from the questionnaire responses, except for body mass index (BMI; kg/m²), which was calculated from clinical examinations of weight and height and categorized as *normal weight* (<25 kg/m²), *overweight* (25-29.9 kg/m²), or *obesity* (≥30 kg/m²). Self-rated general health was determined from the question: "How do you rate your current state of health?" The responses were dichotomized using the original 5-point scale. Ratings below *good* (*moderate*, *poor*, and *very poor*) indicated poor self-rated health versus good self-rated health. The participants were categorized by their smoking status at 46 years old as *current smokers*, *former smokers*, or *nonsmokers*. Their alcohol consumption (in grams per day) was calculated using the self-reported average frequencies and amounts of different beverage use and categorized as *abstinence* (0 g/d), *low risk consumption* (<20 g/d), or *high-risk consumption* >20 g/d). Physical activity was measured in minutes per day, sectioned into quartiles, and finally dichotomized as (1) the lowest quartile and (2) the higher quartiles combined.

Socioeconomic factors at 46 years of age were identified based on data collected via the questionnaire. The participants' education levels were categorized as *basic* (9 years of comprehensive school), *secondary* (high school or vocational school), or *tertiary* (the university level) groups. Their marital status was divided into three categories: *married/cohabiting*, *unmarried*, and *divorced/widowed*. In the 46-year questionnaire, the study participants were asked to select their socioeconomic status from eight options, which we later categorized into *white collar*, *blue collar*, or *other* groups. The participants' previous work history, which was self-reported, was categorized as (1) *continuous* (always or mostly working on long-term/permanent contracts) or (2) *discontinuous* (always or mostly unemployed, mostly supported working, mainly short-term contracts, or short- or long-term contracts with unemployment periods).

Statistical analyses

Statistical analyses were performed using IBM's SPSS statistics for Windows, software version 27 (IBM Corp, Armonk, NY), as well as the graphics presented in Figure 2. Figure 1 was created using Microsoft's PowerPoint software, version 16.54 (Microsoft Corporation, Redmond, WA), and Tables 1 and 2 were designed in Microsoft Word, version 16.54 (Microsoft Corporation). Initially, we cross-tabulated the categorical baseline characteristics with the participants' climacteric status, and we tested for associations using Pearson χ^2 test, considering $P < 0.05$ to be significant.

The association between perceived work ability (a dependent variable) and climacteric status (an independent variable) was then analyzed using a binary logistic regression model that reported odds ratios (OR) with 95% CI.

Poisson regression analyses were used to report incidence rate ratios (IRRs) and 95% CI for disability days and unemployment days (dependent variables) for climacteric status (an independent variable) during the 2-year period beginning after the 46-year follow-up study.

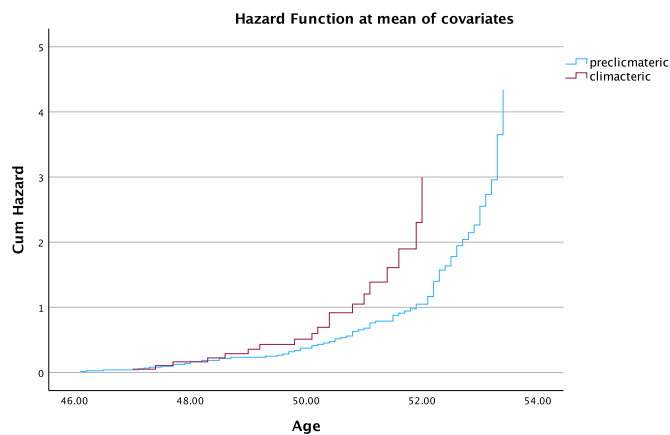


FIG. 2. Kaplan-Meier survival analysis of the disability pension incidence during a 7-year period following the 46-year follow-up study among climacteric and premenopausal women. Blue: climacteric women; red: premenopausal women.

Kaplan-Meier survival analysis was used to compare the incidence of disability pensions between the study groups after the 46-year follow-up study until the end of the year 2019, with a follow-up period of approximately 7 years. Cox regression analyses were used to calculate the hazard ratio (HR) for disability

pensions (a dependent variable) by climacteric status (an independent variable).

All the aforementioned models analyzing climacteric status at the age of 46 years and poor self-reported work ability, disability days and unemployment days, and lastly disability pensions were first applied without adjustment. Next, we separately adjusted for each health-related and socioeconomic factor (Table 2). Finally, we adjusted for the variables that were statistically significantly associated with climacteric status (Table 1): education level and smoking status.

RESULTS

Our study's population (n = 2,661) comprised 359 climacteric women (13%) and 2,302 premenopausal women (87%; the control group; Fig. 1). The climacteric group included 79 women (22%) who had purchased HT 1 year before NFBC1966's 46-year follow-up. Current smoking was more common in the climacteric group (23% vs 17%, *P* = 0.012) than in the control group (Table 1). The premenopausal women had a higher education level at the age of 46 years than the climacteric women (31% vs 26% tertiary education levels, *P* = 0.040). Self-reported health, BMI, alcohol consumption, physical activity, marital status, socioeconomic status, and work history did not differ between our study's climacteric and premenopausal groups.

TABLE 1. Descriptive characteristics of premenopausal and climacteric women at age 46 years

	Total n = 2,661 n (%)	Premenopausal n = 2,302 (86.5%) n (%)	Climacteric n = 359 (13.5%) n (%)	<i>P</i>
Self-reported health	2,565			0.230
Good	1,771 (69.0)	1,539 (69.5)	232 (66.3)	
Poor	794 (31.0)	676 (30.5)	118 (33.7)	
Body mass index, kg/m ²	2,639			0.805
<25	1,215 (46.0)	1,054 (45.9)	161 (47.1)	
25-29.9	856 (32.4)	744 (32.4)	112 (32.7)	
≥30	568 (21.5)	499 (21.7)	69 (20.2)	
Smoking	2,565			0.012
Nonsmoker	1,480 (57.7)	1,297 (58.4)	183 (52.9)	
Former smoker	635 (24.8)	552 (24.9)	83 (24.0)	
Current smoker	450 (17.5)	370 (16.7)	80 (23.1)	
Alcohol consumption, g/d	2,590			0.801
Abstinence (0 g/d)	311 (12.0)	272 (12.2)	39 (11.0)	
Low risk (<20 g/d)	2,090 (80.7)	1,800 (80.5)	290 (81.9)	
High risk (>20 g/d)	189 (7.3)	164 (7.3)	25 (7.1)	
Physical activity, min/d	2,504			0.180
Higher than lowest quartile	1,880 (75.1)	1,645 (75.5)	235 (72.1)	
Lowest quartile	624 (24.9)	533 (24.5)	91 (27.9)	
Educational level	2,591			0.040
Basic	135 (5.3)	112 (5.0)	26 (7.3)	
Secondary	1,660 (64.1)	1,424 (63.7)	236 (66.7)	
Tertiary	793 (30.6)	701 (31.3)	92 (26.0)	
Marital status	2,586			0.549
Married/cohabiting	2,026 (78.3)	1,742 (78.0)	284 (80.2)	
Unmarried	253 (9.8)	219 (9.8)	34 (9.6)	
Divorced/widowed	307 (11.9)	271 (12.1)	36 (10.2)	
Socioeconomic status	2,531			0.100
White collar	989 (39.1)	871 (39.8)	118 (34.6)	
Blue collar	1,167 (46.1)	1,005 (45.9)	162 (47.5)	
Other	375 (14.8)	314 (14.3)	61 (17.9)	
Work history	2,536			0.133
Continuous	1,854 (73.1)	1,614 (73.6)	240 (69.8)	
Discontinuous	682 (26.9)	578 (26.4)	104 (30.2)	

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TABLE 2. OR with 95% CI for poor perceived work ability at age 46 years, IRRs (95% CI) for registered disability days, and unemployment days during 2-year follow-up period and HRs (95% CI) for new disability pensions during 7-year follow-up period for climacteric women at age 46 years compared with preclimacteric women (reference group)

	Perceived poor work ability OR (95% CI)	Disability days IRR (95% CI)	Unemployment days IRR (95% CI)	Disability pensions HR (95% CI)
Unadjusted	1.48 (1.12-1.96)	1.15 (1.13-1.17)	1.20 (1.18-1.21)	1.76 (1.06-2.91)
Adjusted for each health-related factor				
Self-reported health	1.42 (1.04-1.95)	1.04 (1.02-1.06)	1.23 (1.21-1.25)	1.73 (1.03-2.90)
BMI	1.56 (1.17-2.08)	1.17 (1.15-1.19)	1.21 (1.19-1.23)	1.71 (1.01-2.91)
Smoking	1.44 (1.08-1.91)	1.13 (1.11-1.15)	1.14 (1.13-1.16)	1.75 (1.04-2.95)
Alcohol consumption	1.50 (1.13-1.98)	1.24 (1.22-1.26)	1.25 (1.24-1.27)	1.65 (1.00-2.80)
Physical activity	1.52 (1.14-2.04)	1.13 (1.11-1.12)	1.22 (1.20-1.24)	1.69 (1.00-2.89)
Adjusted for each sociodemographic factor				
Educational level	1.43 (1.08-1.90)	1.11 (1.09-1.13)	1.20 (1.18-1.21)	1.77 (1.05-3.00)
Marital status	1.49 (1.13-1.98)	1.23 (1.21-1.25)	1.25 (1.23-1.27)	1.84 (1.10-3.10)
Socioeconomic status	1.43 (1.07-1.90)	1.08 (1.06-1.10)	1.19 (1.18-1.21)	1.79 (1.04-3.08)
Work history	1.45 (1.09-1.92)	1.10 (1.08-1.12)	1.19 (1.17-1.20)	1.65 (0.95-2.86)
Final model				
Adjusted for educational level and smoking status	1.41 (1.06-1.87)	1.09 (1.07-1.11)	1.16 (1.14-1.18)	1.72 (1.02-2.91)

BMI, body mass index; HR, hazard ratio; IRR, incidence rate ratio; OR, odds ratio.

As Table 2 shows, climacteric status was associated with 1.5-fold odds of perceived poor work ability (OR, 1.48; 95% CI, 1.12-1.96) in our unadjusted analysis. This risk slightly increased when adjusted for obesity (BMI >30 kg/m²; OR, 1.56; 95% CI, 1.17-2.08) or the lowest quartile of physical activity (OR, 1.52; 95% CI, 1.14-2.04). This association remained significant after all adjustments were applied separately with all the studied covariates. Moreover, this significance persisted in the final multivariate model, which was adjusted for education level and smoking status, which differed between the study groups.

Climacteric status was also associated with an increased number of subsequent disability days (IRR, 1.15; 95% CI, 1.13-1.17) during the 2-year follow-up. This unadjusted association slightly increased when separate adjustments for BMI, alcohol consumption, and marital status were applied. However, it decreased when adjustments for self-reported health, previous work history, education level, and smoking status were applied. In the final model, the association between education level and smoking remained significant (IRR, 1.09; 95% CI, 1.07-1.11).

Likewise, in the unadjusted analysis, climacteric status was associated with a higher incidence of 2-year unemployment days (IRR, 1.20; 95% CI, 1.18-1.21). This association became slightly stronger when adjustments for self-reported health, alcohol consumption, and marital status were applied. Conversely, it became weaker in the final model (IRR, 1.16; 95% CI, 1.14-1.18), although it remained significant.

By the end of 2019, a higher proportion of participating women who were climacteric at 46 years old had been registered with a new disability pension (5.6% vs 3.3%, $P = 0.03$). Accordingly, our unadjusted analysis revealed that these climacteric women experienced a higher risk of disability retirement (HR, 1.76; 95% CI, 1.04-2.92; Fig. 2). When adjusted for their previous work history, the association decreased to just below the significance level; nonetheless, it appeared robust, regardless of any other adjustments (Table 2).

DISCUSSION

Our population-based cohort study showed that a more advanced menopausal status during the mid-40s was associated with impaired work ability, not only currently perceived work ability but also actual days lost from work in subsequent years. These associations remained significant despite adjustments for relevant confounding factors. Because prior research on the early-onset climacteric phase and work ability is scarce, the current study contributes novel information about the personal and societal effects of an early-onset menopausal transition.

Statistically, a more advanced climacteric status at 46 years of age was associated with 1.5-fold odds of perceived poor work ability versus preclimacteric women. This finding was robust against adjustments for important potential confounders. Because EM is common, and because poor work ability is a known risk factor for premature disability retirement, our population-level results are highly relevant when considering the need to support sustainable careers in aging societies.

Importantly, using registered data, this study verified that the early-onset menopausal transition is associated with an increased risk of a long-term impairment in working life participation. Let us translate the adjusted incidence ratios into the practice: 9% excess disability days corresponded to six days and 16% excess of unemployment days corresponded to 11 days of productivity losses during the 2-year follow-up among climacteric women compared to control group. Moreover, we found a 1.7-fold rate of disability pensions among women who were climacteric at 46 years of age compared with the control group. This rate is high, given that the statutory retirement age for people born in 1966 occurs approximately 20 years later in Finland.

Our findings align with those of the only other study to have provided evidence concerning EM and menopausal symptoms in relation to labor market participation, which was conducted in the United Kingdom. Bryson et al²² found an association between EM and a reduced employment rate once women had reached their 50s. To the best of our knowledge, no other previous studies have focused on EM and work ability.

Future research must thoroughly examine the mechanisms linking a more advanced menopausal status with work ability and the possibility of avoiding disability pensions in our findings. Nevertheless, our results align with those of previous studies that have associated menopausal symptoms with related coping difficulties in the workplace.²⁷ Beyond symptoms, the greater and long-term negative health effects associated with an advanced menopausal status during one's mid-40s, such as osteoporosis²⁸ and cardiovascular disease,⁶ might influence the correlation between poorer work ability and disability incidence among women experiencing EM.

Among the behavioral health risk factors, previous studies have described the association between smoking and an earlier menopausal status,^{29,30} which was also evident in our study. Smoking has been shown to negatively influence work ability.^{31,32} In our study, the association between an advanced climacteric status and poorer work ability remained significant even when adjusted for smoking status. Concerning alcohol consumption, an important determinant of working life participation³³ and an earlier menopausal transition, the previous literature is unequivocal: Mikkelsen et al³⁰ found no association between alcohol consumption and EM, whereas Freeman et al³⁴ reported that moderate alcohol consumption was associated with a lower risk of EM. In our study, we observed no difference in alcohol consumption between the study groups, nor did the adjustments with alcohol use affect our main findings. Likewise, the BMI and leisure time physical activity categories, known predictors of poorer work ability,³⁵ were not associated with the participants' climacteric status at 46 years of age, nor did adjusting for these categories modify the results.

A large US study demonstrated the cost-effectiveness of treating menopausal women experiencing vasomotor symptoms with hormonal treatment; their healthcare visits, workforce losses, and incremental costs decreased compared with untreated women.³⁶ A study by Tang et al³⁷ reported similar results regarding healthcare costs. The negative economic impacts for society due to workplace disability leaves related to an earlier menopausal transition are, indeed, important considerations. Their individual health-related, psychological, social, and economic consequences are, likewise, important.

As the European Menopause and Andropause Society has stated, all healthcare professionals should be better educated on the menopausal transition, and women with EM should receive additional attention.³⁸ A recent review article on menopause and working life pointed out the lack of research on this subject, including studies on various work environments.²¹ A review article by Jack et al³⁹ reported the need for increased awareness of the importance of supporting women with menopause at work and providing practical recommendations for employers,³⁹ such as monitoring room temperatures and ventilation, enabling breaks, and providing easier access to restrooms, as well as enhanced supervisor support.

The current study benefitted from several strengths. First, it was a population-based cohort study of Finnish women (n = 2,661) born within 1 year in the same area, and its relatively large sample represented all economic sectors and a wide range of occupations. Therefore, any biases resulting from macroeconomic

employment turbulence, which may affect studies with wider age ranges, were unlikely in the current work. Second, the study groups were defined based on questionnaire data concerning menstrual periods, FSH measurements, and registry data-based medicine purchases offering a wide range of information on study participants' menopausal stage. Third, the linked, long-term work ability data collected from national registries were highly reliable and enabled daily follow-up for our research period.⁴⁰

Our study was limited, however, in that we had to rely on cross-sectional data concerning the participants' baseline health status, health behaviors, and sociodemographics; we could not, for example, monitor the treatment of menopausal symptoms during follow-up.^{41,42} However, we could make adjustments in our models using a wide variety of established potential confounders in the analyses, including health-related and socioeconomic factors, as well as participants' previous work history at the baseline age of 46 years.

Because of the observational nature of the study's data, we could not specify the mechanisms linking impaired work ability with an early-onset menopausal transition. Earlier studies have suggested that the health risks of surgical and spontaneous menopause may differ.^{43,44} Although both menstrual history and FSH levels were required for categorization in this study, we could not categorize the participating climacteric women using the etiology of declining ovarian function (spontaneous or iatrogenic). Based on survey data, 78 of the women in the climacteric group (22%) had undergone a hysterectomy versus 230 of the women in the preclimacteric group (10%), but information about oophorectomies was not available. Finally, although we collected data on HT purchases at the 46-year follow-up, because of a lack of later details concerning its use (indication, regularity, daily dose, effectiveness in relieving symptoms, and usage duration), as well as the low number of users at the baseline, we could not analyze the effects of HT use on work ability in this study.

CONCLUSIONS

Premature menopausal transition is challenging in that it affects women's work ability. A more advanced climacteric status during one's mid-40s is associated with a higher risk of perceived poorer work ability, as well as impaired long-term working life participation. In healthcare settings, effectively treating menopausal symptoms and promoting the overall health of women experiencing an early-onset climacteric phase are important. In working life, employers should consider making working conditions more flexible for women undergoing the menopausal transition to help them manage their symptoms. In addition, employers should provide these women with increased support; doing so could help minimize their risk of prematurely ending their work careers.

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