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ORIGINAL ARTICLE  
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## Effects of workplace ageism on negative perception of aging and subjective well-being of older adults according to gender and employment status

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**Aim:** According to stereotype embodiment theory, workplace ageism can worsen older adults' self-perceptions of aging and subjective well-being. However, there has been little research on gender differences in this regard. This study examined the effects of workplace ageism on attitudes toward aging and subjective well-being according to gender and employment status.

**Methods:** We carried out an online survey of 600 participants aged 60–74 years in October 2021. Participants were equally divided into women who had worked full-time, women who had worked part-time and men who had worked full-time, and further divided by current employment status, forming a total of six groups for comparison.

**Results:** A total of 75% of the participants perceived some form of workplace ageism. Structural equation modeling showed that, for men and women in full-time employment, workplace ageism was associated with a negative self-perception of aging and poor subjective well-being, the effect of which was strong among those currently employed and weak among those who had retired. For women working part-time, the impact of workplace ageism on subjective well-being was stronger among those who were currently unemployed.

**Conclusion:** Workplace ageism exacerbates older adults' self-perception of aging and decreases their subjective well-being. Women working part-time might quit their jobs when their subjective well-being worsens due to workplace ageism. Therefore, it is necessary to create a workplace environment that is comfortable for older workers and free of ageism. *Geriatr Gerontol Int* 2024; 24: 259–265.

**Keywords:** ageism, gender, older workers, self-perception of aging, survey.

## Introduction

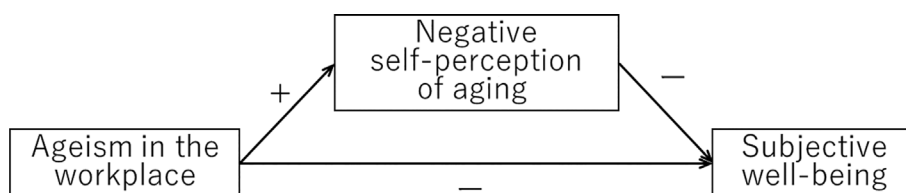
In today's aging society, there is a growing need for employment for older adults. In 2022, 29.1% of the Japanese population was aged ≥65 years, the highest in the world,<sup>1</sup> making the older workforce indispensable to society. In Japan in 2022, employment rates for people aged 60–64 years and 65–69 years were 73.0% and 50.8%, respectively.<sup>2</sup> This was significantly higher than the OECD average of 53.8% and 24.5%, respectively.<sup>3</sup> The Japanese government's policy to extend employment for older people and the Act on Stabilization of Employment of Elderly Persons, revised in 2021, require companies to make efforts to extend employment for workers to the age of 70 years,<sup>4</sup> although this is not mandatory. As the number of older workers is expected to increase, creating a work environment in which older workers can work comfortably and continue working is necessary.

Workplace ageism exists in various forms. For example, older people are less likely to be chosen than younger people in job search and hiring,<sup>5</sup> and receive greater punishment for mistakes at work.<sup>6</sup> A retirement system that uniformly takes jobs away from older adults based on age, or positional retirement systems that reduce status and salary at a certain age, are widespread and can be described as institutional ageism. The experience of workplace

ageism decreases the subjective well-being of older adults.<sup>7–9</sup> A Japanese survey of older workers showed that workplace ageism decreases job satisfaction<sup>10</sup> and worsens their mental health.<sup>11</sup>

Stereotype embodiment theory is a possible mechanism underlying the effects of experiencing ageism on the subjective well-being of older adults.<sup>12</sup> Stereotype embodiment theory argues that negative attitudes toward aging are internalized as negative self-concepts in old age, and have long-term negative effects on the health and longevity of older adults.<sup>13</sup> This theory was supported by follow-up studies for 38 years, and showed that older adults with negative perceptions of aging were more likely to have poorer health later in life.<sup>14</sup> This theory has also been applied to subjective well-being. Longitudinal studies have shown that a negative self-perception of aging has a negative impact on social relationships,<sup>15</sup> social participation<sup>16</sup> and subjective well-being in later life.<sup>17</sup>

Previous studies have shown that perceived ageism negatively affects self-perceptions of aging and decreases self-esteem in older adults,<sup>12</sup> and the experience of ageism worsens self-perceptions of aging and increases cancer risk behaviors.<sup>18</sup> Based on these studies, we predict that older adults who experience workplace ageism will have a negative self-perception of aging, and consequently, negative subjective well-being (Fig. 1).



**Figure 1** The model assumed in this study. Ageism in the workplace mediates negative self-perceptions of aging and reduces subjective well-being.

Additionally, as a negative self-perception of aging has long-term effects,<sup>14</sup> workplace ageism might affect older adults after retirement. Experiencing ageism while being employed might lead to negative attitudes toward aging that cannot be erased and might not restore a sense of well-being even after retirement. Therefore, the impact of workplace ageism should be examined not only during employment, but also after retirement.

Furthermore, gender differences should be considered. The employment rate among older people in Japan differs between men and women. In 2022, employment rates for men and women aged 60–64 years were 83.9% and 62.7%, respectively, and for those aged 65–69 years, 61.0% and 41.3%, respectively.<sup>2</sup>

A previous study noted that women face the “double jeopardy” of sexism and ageism.<sup>19</sup> Women are subjected to ageism from an earlier age<sup>20</sup> and with a greater intensity<sup>21</sup> than men. This gender disparity is especially relevant to Japan, as Japan ranked 125th out of 146 countries according to the gender gap rankings of the World Economic Forum released in 2023.<sup>22</sup> In terms of employment, this large gender gap can be attributed to two factors: the large number of women in part-time employment and the disparity between men and women in full-time employment. In Japan, among workers aged between 25 and 64 years, most men (95%) work full-time, whereas 38.4% of women work part-time with lower wages.<sup>23</sup> Additionally, there is a disparity in wages between men and women with full-time jobs. When compared among full-time employees, women’s wages were 77.6 when men’s wages were set at 100, which is significantly lower than the average for OECD countries (88.4).<sup>24</sup> These gender disparities in the workplace could impact the experience of workplace ageism and the relationship between the experience of ageism and subjective well-being. However, few studies have examined the impact of age discrimination on subjective well-being according to gender or employment type.

Therefore, the present study aimed to examine whether workplace ageism led to lower subjective well-being mediated by negative perceptions of aging, according to gender and employment status. In addition, this study investigated the impact of workplace ageism on subjective well-being during employment and after retirement.

## Methods

### Sample

An anonymous Internet survey was carried out in October 2021. The survey included 600 residents of Tokyo and 20 other major Japanese cities, aged 60–74 years, among individuals registered with the research firm. To compare differences by gender and employment status, quota sampling was used. At survey commencement, participants were asked, “What is the longest form of employment you have had in your adult life?” and they selected one of the following options: “worked full-time,” “worked part-time” or “did not work.” Based on these answers and their gender, three groups were included in the study: women working full time ( $n = 200$ ), women working part time ( $n = 200$ ) and men working full time ( $n = 200$ ).

In Japan, approximately 5% of employed men aged 25–64 years work part-time,<sup>25</sup> showing that, for the majority of men, the longest employment form is full-time work. Therefore, only men who responded with “worked full time” were included in the present study. Men who selected “worked part-time” as the longest employment status, and men and women who responded with “did not work” were excluded from the survey.

This study was approved by the Ethics Review Committee of the Graduate School of Human Development and Environmental Studies at Kobe University.

### Measures

#### Workplace ageism

Workplace ageism was measured using four items modified by Harada *et al.*<sup>10,11</sup> This measure was originally used in the Health and Retirement Study in the USA.<sup>26</sup> Participants were asked to indicate whether each of the following four types of workplace discrimination existed in their current or most recent workplace: (i) employees are moved to the left after a certain age; (ii) the opinions of older workers tend to be ignored; (iii) the general opinion is that employees should leave their jobs by the age of 60 years; and (iv) workers are ridiculed or made fun of for their age. The original scale had three items (i, ii and iii); item (iv) was added to make it applicable to women working part-time. The responses ranged from 1 (not true at all) to 5 (very true), and the total scores for all items were summed for each participant.

#### Subjective well-being

Subjective well-being includes both cognitive and affective aspects.<sup>27</sup> The cognitive aspect refers to the respondent’s cognitive evaluation of their life, whereas the affective aspect refers to the respondent’s positive or negative feelings. In the present study, the cognitive aspect of subjective well-being was measured using the Japanese version of the Satisfaction with Life Scale (SWLS).<sup>28,29</sup> The mean score was calculated, with a higher score representing greater satisfaction with life. The affective aspect of subjective well-being was measured using negative affect (NA) subscale of the Affect Balance Scale.<sup>30,31</sup> The mean score was calculated, with higher values indicating greater negative affect.

#### Self-perception of aging

Self-perception of aging was measured using five items from the Philadelphia Geriatric Center Morale subscale on “attitudes toward own aging” (ATOA)<sup>32</sup> and five items from the Aging Anxiety Subscale (AAS) on “anxiety about loss.”<sup>33</sup> Self-perception of aging is commonly measured using the ATOA scale. However, Ayalon validated the stereotype embodiment theory using “aging anxiety” to represent self-perception of aging.<sup>34</sup> As the present study measured the cognitive and affective aspects of subjective well-being, we used ATOA as well as aging anxiety, which indicates negative affect toward one’s own aging. Mean scores were calculated for both scales, with higher scores indicating a more negative self-perception of aging.

### Sociodemographic variables

Age, education, marital status, current employment status, subjective health status and subjective economic status were also included in the questionnaire.

### Statistical analysis

First, we used ANOVA to examine whether the experience of workplace ageism differed by gender and employment status. Next, the effects of the experience of workplace ageism on negative self-perception of aging and subjective well-being were examined by path analysis using structural equation modeling. A path analysis was carried out in a simultaneous multi-population analysis. This analysis investigates several populations simultaneously using a common model, and path coefficients were compared for each group. Analyses was carried out on six groups; participants were divided into three groups by gender and longest employment status (women working full-time, women working part-time and men), and further divided by employment status (currently employed or unemployed). Indirect effects were tested using bootstrap correction. We controlled for age, education, subjective health and subjective economy in the analyses. Analyses were performed using SPSS 29.0 (IBM Corporation, Armonk, NY, USA) and AMOS 18.0 (IBM Corporation).

## Results

### Variables

Cronbach's alpha coefficients were calculated for each variable. All values were sufficiently high to indicate no problems in adding

items to create a variable (workplace ageism  $\alpha = 0.88$ ; SWLS  $\alpha = 0.90$ ; NA  $\alpha = 0.76$ ; ATOA  $\alpha = 0.69$ ; AAS  $\alpha = 0.84$ ).

The distribution of workplace ageism was highly skewed, with 25.2% of respondents scoring 4 (no ageism) on a scale ranging from 4 to 20. Therefore, we reclassified this variable into a four-level ordinal scale: 1 = no ageism (original score: 4), 2 = low ageism (original score: 5–8), 3 = medium ageism (original score: 9–11) and 4 = high ageism (original score: 12–20; See Table 2 in the later section for details).

### Sample characteristics

Participant characteristics are presented in Table 1. The mean age was 65.7 years (SD 4.24 years). There were no differences in mean age and subjective health among the three groups according to gender or longest type of employment.

### Workplace ageism

The ageism scores for each group are presented in Table 2. Of the participants, 25.2% experienced no ageism, and 75% were aware of some form of workplace ageism. The most common type of ageism was low ageism (35.8%), whereas high ageism (9.5%) was the least common.

There were no differences in the experience of workplace ageism based on gender and longest working status. However, when the analysis was restricted to currently employed workers, women in full-time employment reported significantly more high ageism and women in part-time employment reported more no ageism.

**Table 1** Participant characteristics

	Women working full-time ( <i>n</i> = 200)	Women working part-time ( <i>n</i> = 200)	Men ( <i>n</i> = 200)	Statistical test results (Anova or $\chi^2$ test)
Means <sup>‡</sup>				
Age (years)	65.8	65.4	65.6	NS
Subjective health (1–5)	3.57	3.49	3.38	NS
Subjective economy (1–5)	2.78	2.99	<b>3.02</b>	<i>p</i> < .05
Subjective well-being				
SWLS (1–6)	3.41	3.24	3.4	NS
Negative affect (1–4)	1.36	1.39	1.36	NS
Self-perception on aging				
Attitude toward own aging (0–5)	2.73	2.57	2.75	NS
Aging anxiety (1–5)	<b>2.91</b>	2.75	2.72	<i>p</i> < .05
Frequency(%) <sup>§</sup>				
Current working status				
Currently working	105 (52.5)	118 (59.0)	<b>140 (70.0)</b>	<i>p</i> < .001
Not working	<b>95 (47.5)</b>	82 (41.0)	60 (30.0)	
Marital status				
Currently married	95 (47.5)	<b>147 (73.5)</b>	<b>160 (80.0)</b>	<i>p</i> < .001
Not married <sup>¶</sup>	<b>105 (52.5)</b>	53 (26.5)	40 (20.0)	
Education				
Junior high and high school	<b>62 (31.0)</b>	55 (27.5)	33 (16.5)	<i>p</i> < .001
Vocational school/junior college	54 (27.0)	<b>73 (36.5)</b>	16 (8.0)	
University/graduate School	84 (42.0)	72 (36.0)	<b>151 (75.5)</b>	

Abbreviations: NS, not significant; SWLS, Satisfaction with Life Scale.

<sup>‡</sup>Comparisons between groups using ANOVA. Bolded values show significantly higher means based on Tukey's multiple comparisons (*p* < .05).

<sup>§</sup>Comparisons between groups using the  $\chi^2$  test. Bolded values show significantly higher numbers than for other groups based on the residual analysis (*p* < .05).

<sup>¶</sup>Includes bereaved, divorced, and unmarried individuals.

**Table 2** Ageism experiences in the workplace by gender, longest employment status and current work status

	<i>n</i>	No ageism	Low ageism	Medium ageism	High ageism	$\chi^2$ -test results
All	600	151 (25.2)	215 (35.8)	177 (29.5)	57 (9.5)	NS
Women working full-time	200	46 (23.0)	72 (36.0)	58 (29.0)	24 (12.0)	
Women working part-time	200	62 (31.0)	67 (33.5)	53 (26.5)	18 (9.0)	
Men	200	43 (21.5)	76 (38.0)	66 (33.0)	15 (7.5)	
Currently working						
Women working full-time	105	28 (26.7)	37 (35.2)	25 (23.8)	<b>15 (14.3)</b>	$P < 0.05$
Women working part-time	118	<b>43 (36.4)</b>	33 (28.0)	32 (27.1)	10 (8.5)	
Men	140	31 (22.1)	55 (39.3)	46 (32.9)	8 (5.7)	
Not currently working						
Women working full-time	95	18 (18.9)	35 (36.8)	33 (34.7)	9 (9.5)	NS
Women working part-time	82	19 (23.2)	34 (41.5)	21 (25.6)	8 (9.8)	
Men	60	12 (20.0)	21 (35.0)	20 (33.3)	7 (11.7)	

Note: Bold values indicate significantly higher numbers based on the residual analysis ( $P < 0.05$ ).

Abbreviations: NS, not significant.

### Association between workplace ageism, self-perception of aging and subjective well-being

We examined the direct and indirect effects of workplace ageism on subjective well-being. Age, education, subjective health status and subjective economic status were controlled for. Simultaneous multi-population analysis was carried out for six groups: full-time working women (currently working/not working), part-time working women (currently working/not working) and men (currently working/not working). The fitted model is shown in Fig. 2. The original model included a path from AAS to SWLS in addition to the path shown in Fig. 2; however, this path was excluded from the model, because it had no significant effect in any group. As the AAS was a measure of negative affect (anxiety) about aging, it likely had little effect on the SWLS, which involved the cognitive aspect of subjective well-being.

Table 3 presents the standardized estimates of the direct and indirect effects of the path model in Fig. 2 for each of the six groups. Among the six groups, the results fit the model best for currently employed men, with all paths and indirect effects being significant. In this group, workplace ageism was associated with more negative ATOA and AAS scores, which were associated with lower SWLS and higher NA scores. The indirect effects of ageism on the SWLS and NA were significant. Additionally, workplace ageism was directly associated with lower SWLS and higher NA scores. Contrastingly, the effect of ageism on subjective well-being was weaker for men who were not currently employed. Workplace ageism was associated with more negative ATOA and

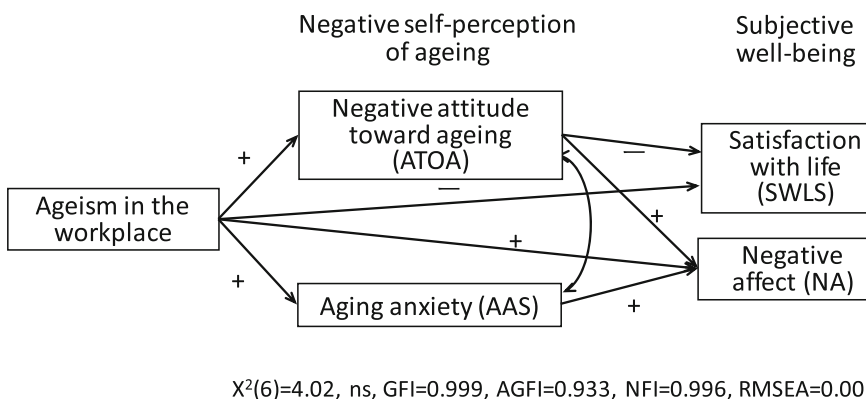
AAS scores, whereas negative ATOA was associated with lower SWLS scores. The indirect effects of ageism on the SWLS were significant.

For women working full-time in the currently employed group, workplace ageism was associated with negative ATOA and AAS scores, which were associated with lower SWLS and higher NA. The indirect effects of workplace ageism on the SWLS and NA were significant. In the unemployed group, workplace ageism was associated with negative AAS, which was associated with a higher NA. This indirect effect was significant.

For currently employed women working part-time, workplace ageism was associated with a negative AAS score, which was associated with higher NA, but the indirect effect of ageism on NA was not significant. In contrast, in the unemployed group, workplace ageism was associated with more negative ATOA and AAS scores, which were associated with lower SWLS and higher NA. The indirect effects of ageism on SWLS and NA were significant. Additionally, workplace ageism was directly associated with higher NA.

### Discussion

The present study examines whether the experience of workplace ageism, mediated by negative perceptions of aging, leads to a decline in subjective well-being according to gender, longest employment status and current employment status. The path analysis results were consistent with these predictions. According to gender and working status, for men and women in full-time



**Figure 2** The fitted path model resulting from the structural equation model. Ageism in the workplace was associated with subjective well-being mediated by negative self-perception of aging. Age, education, subjective health and subjective economy were controlled in the analyses.



**Table 3** Standardized estimates of direct and indirect effects by gender, longest employment status and current work status

	Independent variable	Dependent variable	Women working full-time		Women working part-time		Men	
			Currently working (n = 105)	Not working (n = 95)	Currently working (n = 118)	Not working (n = 82)	Currently working (n = 140)	Not working (n = 60)
Direct effect	Ageism	SWLS	−0.035 NS	−0.08 NS	−0.089 NS	0.032 NS	−0.176*	0.004 NS
		NA	0.104 NS	−0.073 NS	0.049 NS	0.256*	0.179*	0.187 NS
		ATOA	0.247**	0.111 NS	0.069 NS	0.185†	0.219**	0.321**
	ATOA	AAS	0.462***	0.344***	0.142†	0.372***	0.284***	0.459***
		SWLS	−0.235**	−0.434***	−0.262***	−0.305**	−0.319***	−0.258*
		NA	0.226*	0.223†	0.351***	0.188†	0.206*	0.084 NS
		AAS	0.194†	0.203†	0.217*	0.264**	0.193*	0.063 NS
Indirect effect	Ageism	SWLS	−0.058*	−0.048 NS	−0.018 NS	−0.056†	−0.070**	−0.083†
		NA	0.145*	0.094*	0.055 NS	0.133*	1.000*	0.056 NS

\*\*\* $P < 0.001$ .\*\* $P < 0.01$ .\* $P < 0.05$ .† $P < 0.10$ .

Abbreviations: AAS, aging anxiety scale; ATOA, attitude toward own aging; LSF, satisfaction with life scale; NA, negative affect; NS, not significant; SWLS, Satisfaction with Life Scale.

employment, this effect was stronger for currently employed individuals and weaker for unemployed individuals. In contrast, for women who worked part-time, the effect was stronger for unemployed women, but not for currently employed women.

Among the participants, 75% perceived workplace ageism. Most participants recognized weak ageism, indicating the existence of a weak and broad sense of ageism in Japan. However, women in full-time employment tended to be more likely to perceive higher levels of ageism. These results were consistent with those of previous studies in the USA, which showed that women were more vulnerable to ageism than men.<sup>19–21</sup> In Japan, to the best of our knowledge, no existing studies have examined gender differences in ageism using empirical data. The present findings suggest that in Japan, as in the USA, women are more vulnerable to age discrimination in full-time employment than men.

Conversely, more women who worked part-time had not experienced workplace ageism when compared with full-time workers. This might be due to the fact that part-time workers in Japan are marginalized in career advancement and decision-making.<sup>35</sup> As this study assumed that workplace ageism included being deprived of one's position or having one's opinions ignored because of age, it might have missed other forms of ageism that female part-time workers are more likely to experience, such as belittling for physical attractiveness.<sup>36</sup>

The relationship between workplace ageism, self-perception of aging and subjective well-being was consistent with that predicted by the stereotype embodiment theory.<sup>13</sup> Among men and women with full-time employment who were currently employed, those who had experienced workplace ageism had more negative self-perceptions of aging and lower subjective well-being. Workplace ageism may thus lead to a more negative self-perception of aging, reducing subjective well-being. This effect was stronger for men, with a direct effect of workplace ageism on subjective well-being only among them. This is thought to be due to the fact that men lead more work-oriented lives than women.<sup>37</sup> In Japan, men work 1.7-fold longer hours than women in paid work,<sup>38</sup> and it has been suggested that such long working hours narrow men's social relationships outside the workplace and lead to maladjustment during old age.<sup>39</sup> Conversely, women are likely to have a larger and more

diverse network, and engage in more social support exchanges than men.<sup>40,41</sup> Therefore, although women might be mitigated from the negative effects of a poor work environment by other sources of support, men might be strongly affected by the work environment.

The effect of ageism on subjective well-being was weaker among retired individuals. Quitting work and moving away from ageist environments might weaken the negative effects of ageism. However, it is concerning that this negative impact, although weak, persists after retirement. Stereotype embodiment theory shows that the effects of negative self-perception on aging can have long-term effects lasting over 30 years.<sup>14</sup> This study points out that workplace ageism leads to a negative self-perception of aging, and decreases subjective well-being in the long term until after retirement.

In contrast, for part-time working women who were currently employed, workplace ageism had no direct or indirect effect on subjective well-being. However, among retired individuals, those subjected to ageism at work (in the past) had more negative self-perceptions of aging and lower subjective well-being. This might be because women who work part-time continue to work when the work environment is good, but quit their jobs when their subjective well-being is hurt by workplace ageism. As part-time employees have a lower status in the workplace and lower pay than full-time employees,<sup>23</sup> they might be less motivated to continue working in situations where subjective well-being is exacerbated by ageism. The elimination of workplace ageism and improvements in the status of part-time workers are required to ensure that women in part-time employment continue to work as they age.

Furthermore, workplace ageism tended to increase aging anxiety in all six groups. Self-perceptions of aging have often been measured using the ATOA scale, whereas few studies have examined aging anxiety.<sup>34</sup> The present findings showed that ageism affected aging anxiety more than ATOA. Furthermore, aging anxiety affected only the affective aspect of subjective well-being, which could be because aging anxiety is a negative emotion about aging. Further research is required to evaluate the effects of aging anxiety on psychology and behavior.

The present study had three limitations. First, this study used survey company monitors to secure the unusual sample of women

aged >60 years in full-time employment. Therefore, the sample for this study was not representative, and the distribution of workplace ageism obtained in this study cannot be generalized to society as a whole. Second, we did not measure the number of years since retirement for the sample that was not currently working. This study showed that workplace ageism has long-term effects, even after retirement; however, we could not determine how long these effects last. Third, men whose longest employment status was part-time were not included in this study, because they were considered to be a small number. However, the number of men who work part-time in informal jobs is increasing, and men with this type of work might face different issues than men with full-time employment. We intend to explore this in a future study.

In accordance with the stereotype embodiment theory, the present study showed that experiencing workplace-related age discrimination led to negative perceptions of aging and decreased subjective well-being. Experiencing ageism in the workplace led to negative attitudes toward aging among all people, but the implications were different for men and women. In the case of men, this led to a decline in subjective well-being, particularly during their tenure. Thus, to prevent a decline in men's subjective well-being during old age, workplace support, such as systems that enable people to demonstrate their abilities even in old age and consultation services for perceived age discrimination, must be developed. Meanwhile, for women, especially women who work part-time, negative attitudes toward aging due to ageism in the workplace led to them quitting their jobs, which had a lasting effect, leading to a lower subjective sense of well-being after retirement. Full-time working women were more likely to be victims of workplace age discrimination than men and women who worked part-time. Many women are in precarious part-time employment from a young age, and even full-time working women often have low status at the workplace. Workplace age discrimination must be eliminated, and the employment gap between men and women must be corrected to maintain women's willingness to continue working.

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## Disclosure statement

The authors declare no conflict of interest.

## Data availability statement

Data available on request from the authors.

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