

Journal of Aging & Social Policy

ISSN: 0895-9420 (Print) 1545-0821 (Online) Journal homepage: www.tandfonline.com/journals/wasp20

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To cite this article: Anna Amilon, Mona Larsen & Anu Siren (17 Nov 2025): Work Adversities, Job Lock, and Well-Being: A Study of Low-Skilled Older Workers in the Era of Delayed Retirement, Journal of Aging & Social Policy, DOI: 10.1080/08959420.2025.2587366

To link to this article: https://doi.org/10.1080/08959420.2025.2587366

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Published online: 17 Nov 2025.

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JOURNAL OF AGING & SOCIAL POLICY
https://doi.org/10.1080/08959420.2025.2587366

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Work Adversities, Job Lock, and Well-Being: A Study of Low-Skilled Older Workers in the Era of Delayed Retirement

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ABSTRACT

Changes in policies that restrict early retirement have raised the retirement age for many low-skilled older workers in Denmark. This study examines the prevalence of adversities among these workers and their impact on mental well-being. Using latent class analysis on Danish survey data from 5,453 low-skilled workers aged 57–62 years, five distinct adversity profiles were identified: "poor health" (17%), "adverse working conditions" (11%), "dire financial situation" (11%), "poor health and adverse working conditions" (8%), and "no adversities" (52%). Workers facing adversities report significantly lower mental well-being, with a higher risk of depression and increased stress levels, compared to those without adversities. The risk of poor mental well-being is highest among those experiencing both health and work-related adversities. Additionally, "job lock" – when workers wish to retire but cannot afford to – emerges as a key factor associated with reduced mental well-being across all adversity profiles. The findings suggest that efforts to extend working lives by limiting early retirement opportunities could have unintended implications for the mental well-being of low-skilled older workers. Notably, the findings indicate that firms actively engaging in supportive practices can mitigate some adverse effects, underscoring the critical role employers play in safeguarding the mental well-being of older employees.

ARTICLE HISTORY
Received 12 February 2025
Accepted 7 August 2025

KEYWORDS
Adversity; cohen's perceived stress scale (pss); Denmark; job lock; latent class analysis; mental well-being; older workers; World Health Organization Well-Being Index (WHO-5)

Introduction

With aging populations, many countries have reformed their pension systems to increase older adults' labor participation (McLaughlin & Neumark, 2018). Reforms include raising pension eligibility ages, restricting early retirement, and offering financial incentives to delay retirement (OECD, 2023). Consequently, retirement ages have increased over the past two to three decades (OECD, 2019). However, pension systems often fail to accommodate

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Supplemental data for this article can be accessed online at https://doi.org/10.1080/08959420.2025.2587366

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differences in older workers' ability and willingness to continue working (Henkens & van Solinge, 2021; Turek et al., 2022).

Research shows that higher-skilled workers, who benefit from better health, employability, and job flexibility, are more likely to postpone retirement (Henkens & van Solinge, 2021; Robroek et al., 2015; Turek et al., 2022). Conversely, low-skilled workers often have poorer health and less job control (Taylor, 2019) and are more likely to face "job lock"—the inability to retire despite wanting to—due to financial constraints (Fisher et al., 2016; Turek et al., 2022). Job lock has been linked to poorer mental well-being (Fisher et al., 2016; Turek et al., 2022), and low-skilled older workers tend to experience lower mental well-being than their high-skilled peers (Munnell et al., 2021). Given reduced early retirement options, low-skilled older workers may be disadvantaged under current pension policies. This study examines which adversities low-skilled older workers face and how such adversities shape their mental well-being.

Low-skilled older workers are at risk of reduced mental well-being for three reasons. First, they are more exposed to adverse working conditions, such as job strain and poor psycho-social and physical environments (Amilon et al., 2024; Hasselhorn et al., 2020; Mezuk et al., 2011), which may influence mental well-being directly and indirectly through their impact on physical health (Ohrnberger et al., 2017). Moreover, as retirement ages rise, worries about sustaining physical capacity may further harm mental well-being (de Breij et al., 2020; Irvine & Rose, 2022; van Solinge & Henkens, 2017). Second, many low-skilled older workers have experienced adversities throughout the life course, including childhood poverty, limited education, and substandard housing (Wilkinson & Marmot, 2003). Consequently, their mental well-being may be linked to broader socio-economic health disparities. Third, financial insecurity, due to lower wages and job insecurity, is detrimental to workers' mental well-being (Green & Leeves, 2013) and restricts their ability to leave the labor market when facing health issues or adverse working conditions, increasing the risk of job lock. While these adversities are likely interconnected, research has overlooked how intersections across adversities correlate with low-skilled workers' mental well-being (Amilon et al., 2024). This study addresses this gap by i) identifying adversity profiles and their prevalence among low-skilled older workers, and ii) examining the associations between adversity profiles and mental well-being outcomes.

Different segments of older workers may face varying risks of adversities. For example, women and unpartnered individuals are often particularly vulnerable (Lain & Phillipson, 2019), leading us to investigate how socio-demographic characteristics relate to adversity profiles. Moreover, extended working lives heighten the importance of psychosocial and physical working conditions, underscoring the critical role of workplaces (Conen et al., 2011). Since a workplace's ability to provide support varies with its size, product or service diversity, and market conditions (Fleischmann et al., 2015; Qvist,

2023), we also explore how organizational characteristics and policies relate to adversity profiles.

The Danish context

Our study is situated in Denmark, a country known for its comprehensive welfare state and "flexicurity" model, which combines labor market flexibility with strong income protection (STAR, 2024). Nevertheless, low-skilled workers face higher unemployment and longer jobless periods than their high-skilled counterparts (Bang-Petersen et al., 2018), leaving them more vulnerable to financial insecurity. Recent pension reforms have further disadvantaged this group. First, the statutory retirement age (67 in 2025) is indexed to life expectancy, which varies by socioeconomic status, leaving low-skilled workers with fewer retirement years on average (Strozza et al., 2024). Second, changes to the Voluntary Early Retirement Program (VERP) – including higher eligibility ages and less generous benefits – have made early retirement less accessible (STAR, 2024).

Although high-skilled workers still retire nearly three years later than their low-skilled peers (at age 69.1 vs. 66.2), recent reforms limiting early retirement options have led to a larger increase in retirement ages among low-skilled older workers in Denmark (Amilon & Larsen, 2023; Caspersen, 2025). This indicates that the recent adjustments to the Danish pension system may have amplified inequalities in retirement opportunities, increasing low-skilled workers' risk of health-related, work-related, and financial adversities, thereby exacerbating the risk of job lock.

While collective agreements regulate public-sector work conditions, private-sector workers are more exposed to competitive market forces and operate under conditions that more closely resemble those of global labor markets. This study, therefore, focuses on private-sector workers.

By examining adversity profiles among low-skilled private sector workers aged 57–62—about 10% of workers in this age-group – and the link between adversity profiles and mental well-being, we aim to inform policymakers of the potential unintended consequences of increasing retirement ages. Such knowledge is crucial for shaping future pension policies. As mental well-being is associated with productivity and labor force participation (Nielsen et al., 2017; Santini et al., 2022), our findings also offer guidance for employers seeking to retain and support older low-skilled workers.

Methods

Data

For this study, we drew a sample of 20,062 low-skilled workers aged 57–62 in 2022 (born in 1960–1965) from the Danish administrative population registry. Although there is no universally agreed-upon definition of "low-skilled,"

classifying individuals based on low educational attainment has been found appropriate in the European context (Steedman & McIntosh, 2001). Accordingly, we defined low-skilled workers as those who had not attained education beyond basic (compulsory) schooling, were employed (wage earners) in the private sector, and held occupations under International Standard Classification of Occupations (ISCO) major groups 4 to 9: clerical support workers (4), service and sales workers (5), skilled agricultural, forestry and fishery workers (6), craft and related trades workers (7), plant and machine operators and assemblers (8), and elementary occupations (9) (ILO, 2012). While professional activity could serve as a more precise indicator of skill level, such information was not available in the registries and could therefore not be used for sampling.

To ensure that all individuals in the sample were active in the labor market, we included only individuals who worked at least 50 hours in May–June 2022 (the most recent data available at the time of sampling). This threshold was selected to also capture those with weaker labor market attachment, reflecting the prevalence of temporary and hourly contracts among low-skilled workers in Denmark. Data collection was approved by Statistics Denmark (reference number 704433).

In November 2022, sampled individuals received a letter with a link to the questionnaire, outlining the study's purpose and emphasizing voluntary participation. Because low-skilled older workers, on average, have poor reading skills (Rosdahl et al., 2013), we designed the questionnaire to be brief and easy to read. We used previous literature and a focus group with researchers and representatives from unions organizing low-skilled workers to help construct the questionnaire. To ensure that the questionnaire and its response categories were clear and meaningful to respondents, we conducted two individual face-to-face interviews in which participants completed the questionnaire using the "think-aloud" method. Insights from these interviews were used to refine the wording of selected questions and response options to improve clarity and respondent understanding.

Statistics Denmark distributed the web-based questionnaire, and the response rate was 29.7% (n = 5,963). We excluded respondents who reported that they were not employed in the private sector (451) and for whom information was missing about both education and ISCO code (59). The final sample included 5,453 respondents. In all analyses, the data were weighted using information on sex, age, country of origin, family type, region, and family income obtained from the Danish administrative registries.

Measures

Low-skilled older workers face an elevated risk of encountering work-related, health, and financial adversities, or combinations thereof. We measure these adversities using three dichotomized items for each category (nine in total).

A key criterion in selecting these items was ensuring that they exhibited sufficient variability in responses, thereby capturing meaningful individual differences (Masyn, 2013). Individuals were classified as experiencing work-related adversities if they responded with "disagree" or "strongly disagree" (as opposed to "neither agree nor disagree," "partly agree" or "completely agree") to any of the following statements: i) "I have sufficient time to complete my tasks," ii) "I have an influence on my work," or iii) "I have a good professional relationship with my a) immediate manager or b) colleagues." For the last statement, disagreement with either relationship was combined into a single indicator. Items for health adversities were as follows: i) "Poor health" (self-reported health is "poor" or "fair" as opposed to "good," "very good" or "excellent"), ii) "Takes painkillers" (takes painkillers to cope with the working day "every day" or "one or more times a week" as opposed to "a couple of times a month" "rarely" or "never"), and iii) "Health problems make it hard to work" (respondent reports "to a high degree" as opposed to "to some degree" or "no" that it is difficult to work due to pain, allergy or eczema, vision or hearing impairment, memory or concentration problem or fatigue). Financial adversities were assessed using three items: i) ability to pay unexpected bill of DKK 10,000 ($1,450) without credit ("no" vs. "yes"); ii) whether financial circumstances allow working fewer hours ("no, certainly not" vs. "no, probably not"; "yes, maybe"; "yes, absolutely"); iii) whether rising prices (e.g. electricity, gas and food) have significantly worsened once financial situation over the past six months ("to a high degree" vs. "to some degree" or "no"), in the context of inflation following COVID-19 and the war in Ukraine.

We examine how adversity profiles relate to respondent characteristics, including *sex* (male vs. female), *partnership status* (lives alone vs. cohabits), and *age group* (57–59 vs. 60–62). In addition, we investigate job-related factors, including *workplace size* (< 50; 50–249; ≥ 250 employees), *working time* (hours are < 20; 20–29; 30–36; 37–40; > 40; variable) and *job tenure* (< 2; 2–4; 5–9; 10–24; ≥25 years). To asses employer support, we include whether the *employer tries to retain older workers* ("to a high/some degree" vs. "to a low degree/not at all"). Finally, we construct an indicator for *possible to reduce work-load* based on the questions i) "Does your workplace allow you to reduce your weekly hours?" and ii) "Does your workplace allow you to take on less demanding tasks" ("yes, positively" or "yes, probably" to either vs. "no, probably not" or "no, certainly not" to both).

"Job lock" refers to workers feeling unable to leave their current jobs, for instance, due to financial constraints or loss of benefits (Fisher et al., 2016; Huysse-Gaytandjieva et al., 2013). We classify respondents as experiencing job lock if they prefer to retire earlier than their expected retirement age due to health considerations but cannot afford to do so.

Last, we asses mental well-being through two measures: Cohen's Perceived Stress Scale (PSS-10) and the World Health Organization Well-Being Index

(WHO-5) (Eskildsen et al., 2015; Topp et al., 2015). PSS-10 is a widely used tool measuring how unpredictable, uncontrollable, and overloading respondents perceived their lives as during the past month (Cohen et al., 1983). Scores range from 1 to 40, with higher values indicating a higher risk of stress: 1–13 (low), 14–26 (moderate), and 27–40 (high) (Gambetta-Tessini et al., 2013).

The WHO-5 assesses subjective well-being and serves as a validated screening tool for depression. Respondents rate five positive statements based on the past two weeks. Scores range from 0 to 100, with lower scores indicating more depressive symptoms; 0–35 (high risk), 36–50 (moderate risk), and >50 (no risk) (Glintborg et al., 2018; Topp et al., 2015).

Analytic strategy

We used three empirical approaches: i) Latent class analysis (LCA), ii) multinomial logit analysis, and iii) ordinary least squares (OLS) regression. First, we used unconditional LCA to identify adversity profiles among low-skilled older workers, where adversities may be related to work, health, or financial adversities and intersections between these factors. We compared fit indices to determine the optimal number of adversity profiles.

Second, having identified an optimal number of adversity profiles, we assigned each respondent to the most likely profile based on their maximum posterior probability. We then used multinomial logit analysis to investigate the characteristics of workers belonging to each profile. To facilitate interpretation, we calculated average marginal effects that reveal the average change in probability of belonging to a certain adversity profile when an explanatory variable increases by one unit.

Third, we used OLS regression models to assess how adversity profiles relate to mental well-being outcomes, controlling for individual and job characteristics. Moreover, we investigated if mental well-being measures differ systematically by workers' job lock status. We present results as adjusted predictions, that is, the predicted value for the outcome variables for each of the adversity profiles, while keeping all other variables at their means. All analyses were conducted using STATA, version 17.

Results

Descriptive statistics

Table 1 presents descriptive statistics. The mean scores for risk of stress and risk of depression were 14 and 63, respectively, indicating a moderate risk of stress and no risk of depression. Job lock affected 24% of respondents, and between 19% (for "health problems make it hard to work") and 35% (for "poor health") faced each of the adversity indicators. The sample is 36% female, 74%

Table 1. Descriptive statistics.

Variable	N	Mean (standard deviation)/%
Mental well-being measures		
Risk of stress (PSS-10) (average score)	5,393	14.3 (0.09)
Risk of depression (WHO-5) (average score)	5,439	63.4 (0.31)
Job lock	5,453	24.1
Adversity indicators		
Work-related adversities:		
Not sufficient time to complete tasks	5,448	26.6
No influence at work	5,447	22.3
Not good relationship with manager and colleagues	5,437	18.9
Health adversities:		
Poor health	5,452	34.6
Takes painkillers	5,438	31.2
Health problems make it hard to work	5,449	18.8
Financial adversities:		
Cannot pay unexpected bill	5,438	23.5
Worsening financial situation	5,432	21.0
Cannot afford to reduce working hours	5,428	23.1
Worker characteristics		
Woman (vs. man)	5,453	36.1
Cohabits with a partner or spouse (vs. lives alone)	5,453	73.6
57–59 years (vs. 60–62 years)	5,453	48.0
Job characteristics		
Firm size	5,453	
Less than 50 employees (small)		48.3
50–249 employees (medium)		27.5
250 or more employees (large)		24.2
Number of working hours per week	5,402	
Less than 20		6.8
20–29		3.8
30–36		9.6
37–40		64.0
More than 40		5.5
Varies		10.3
Job tenure (years)	5,397	
Less than 2		15.0
2–4		14.8
5–9		18.8
10–24		30.4
25 or more		20.9
Firm efforts		
Firm tries to retain older workers	5,453	44.7
Possible to reduce workload	5,453	51.7

N = 5,493 respondents were included in the latent class analysis. The sample size in subsequent analyses is slightly smaller, as some participants did not complete all survey questions.

cohabiting, and 48% aged 57–59 years. Almost half of our respondents (48%) work for a small firm, the vast majority (64%) work full-time, and 51% have a tenure of at least 10 years. About 45% reported employer efforts to retain older workers and 52% stated that it would be possible for them to reduce their workload if needed.

Number and characteristics of adversity profiles

To select the model with the optimal number of profiles in the LCA, we compared a series of fit indices and statistical tests for models with 1–8 adversity profiles (classes). The results favored a model with 4–7 classes, and

we chose to proceed with the 5-class model. Supplementary Appendix A reports model fit indices, statistical tests, and our considerations in connection with model choice in further detail.

Figure 1 shows the probabilities of older workers in each profile being affected by each of the nine adversity indicators. The largest profile "no adversities" (52%) has low exposure to all adversities. The "poor health" profile (17%) is characterized by poor self-reported health (92%), regular pain-killer use (87%), and health-related work difficulties (59%). Workers facing "adverse working conditions" (11%) frequently report insufficient time to complete tasks, limited influence, and poor workplace relationships (around 80%). The "dire financial situation" profile (11%) is marked by financial struggles, including inability to cover unexpected bills (86%), worsening finances due to inflation (71%), and inability to afford to reduce their working hours (83%). The final group, "poor health and adverse working conditions" (8%), shows high levels of both health and work-related adversities (67%–95%), with about half also experiencing financial adversities (though not enough to be considered a defining characteristic of the profile (Masyn, 2013)). Overall, nearly half of low-skilled Danish

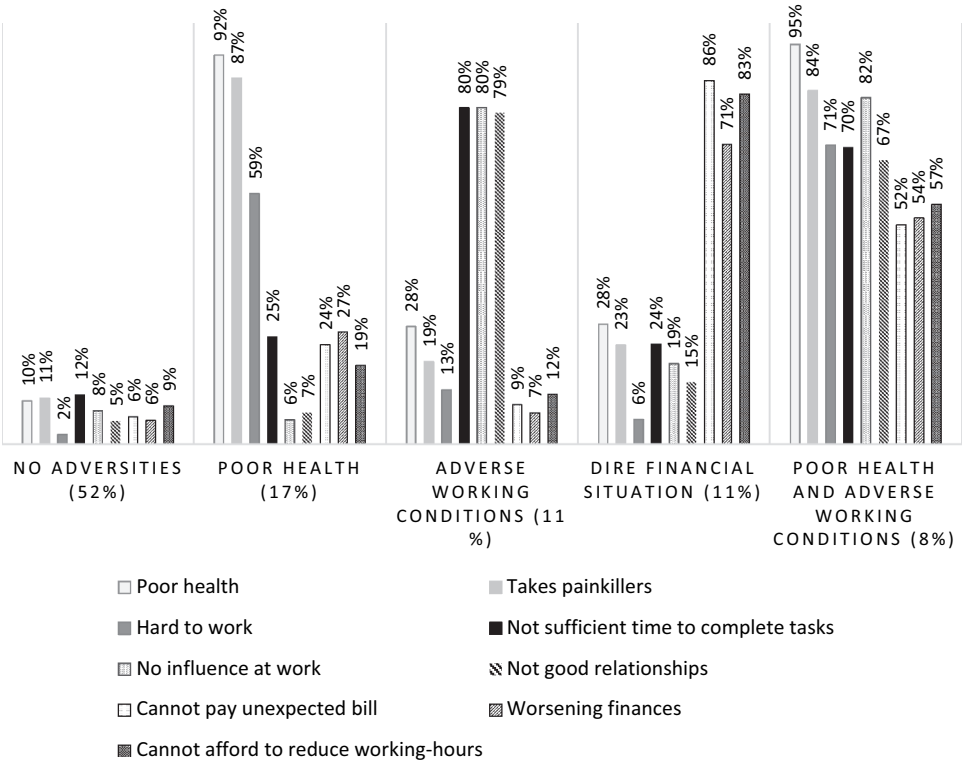


Figure 1. Adversity profiles of low-skilled older Danish workers. X-axis: adversity indicators for each adversity profile; y-axis: item response probabilities.

private-sector workers face at least one type of adversity, while intersecting adversities are relatively rare.

Characteristics of workers belonging to each adversity profile

We assigned individuals to their most likely adversity profile and analyzed associations with individual and job characteristics using a multinomial logit model (see Supplementary Tables B1 and B2 for descriptive statistics and job types by profile). Table 2 shows that job characteristics (e.g., working hours, tenure) are more strongly linked to adversity profiles than individual traits (e.g., sex, age), underscoring the employer's role in shaping older workers' experiences.

The "no adversities" profile is associated with longer hours, greater seniority, supportive workplace practices, lower job lock, and a higher likelihood of living with a partner. The "poor health" profile is associated with living with a partner, working in small workplaces and working less than 20 hours a week. In addition, there is a (small) positive association with being able to reduce one's workload. Workers in this profile run the highest risk of being in job lock. In contrast, the "adverse working conditions" profile is more common among men, individuals aged 60–62, those in medium or large enterprises and those working 30+ or variable hours. Workers in this profile are least likely to report workload flexibility or retention efforts.

Table 2. Multinomial logit analysis of individual and job characteristics of older low-skilled workers belonging to the five adversity profiles. Average marginal effects.

	No adversity		Poor health		Adverse working conditions		Dire financial situation		Poor health & adverse working conditions	
Women	0.014		−0.021		−0.023	*	0.015		0.015	(*)
Not living with a partner	−0.085	***	−0.023	(*)	−0.006		0.089	***	0.025	**
57–59 years (b)	0		0		0		0		0	
60–62 years	−0.010		0.010		0.019	*	−0.030	***	0.012	
Small workplace (b)	0		0		0		0		0	
Medium workplace	0.016		−0.036	**	0.024	*	−0.018	(*)	0.014	
Large workplace	−0.019		−0.037	**	0.040	***	−0.010		0.026	*
Less than 20 hours (b)	0		0		0		0		0	
20–29 hours	0.222	***	−0.223	***	0.019		0.047		−0.065	*
30–36 hours	0.260	***	−0.300	***	0.071	***	0.027		−0.058	*
37–40 hours	0.323	***	−0.297	***	0.064	***	0.006		−0.096	***
More than 40 hours	0.335	***	−0.305	***	0.116	***	−0.036		−0.110	***
Varying hours	0.305	***	−0.289	***	0.052	**	0.016		−0.084	***
Less than 2 years (b)	0		0		0		0		0	
2–4 years	0.051	*	0.002		−0.017		−0.016		−0.021	
5–9 years	0.087	***	−0.018		−0.004		−0.044	**	−0.020	
10–24 years	0.079	***	0.008		−0.006		−0.058	***	−0.022	(*)
At least 25 years	0.145	***	−0.007		−0.012		−0.075	***	−0.051	***
Job lock	−0.242	***	0.089	***	−0.006		0.078	***	0.081	***
Firm tries to retain older workers	0.131	***	0.005		−0.079	***	0.000		−0.056	***
Possible to reduce workload	0.080	***	0.027	*	−0.044	***	−0.020	*	−0.044	***

N = 5,351. (*) $p < .1$, *$p < .05$, **$p < .01$, ***$p < .001$.

Single workers and those with less than two years of seniority are more likely to fall in the "dire financial situation" or "poor health and adverse working conditions" profiles. The former is also linked to being aged 57–59 and working in small workplaces, while the latter is associated with being female, working at a large workplace, and part-time work (< 20 hours). Both profiles correlate with job lock and limited workload flexibility, and the 'poor health and adverse working conditions' profile also correlates with a lack of retention efforts.

Mental well-being

Figure 2 shows adjusted predictions of mental well-being outcomes from OLS models (for details on the distribution of stress and depression by adversity profile and age group, see Supplementary Tables C.1-C.4). Results indicate that adversity profiles are linked to mental well-being. Stress levels (PSS-10) are lowest among those with no adversities (12 points) and highest for those facing both poor health and adverse working conditions (20 points). Among single adversities, stress scores are slightly higher for "poor health" (17) than for "adverse working conditions" (16) or "dire financial situation" (15). Based

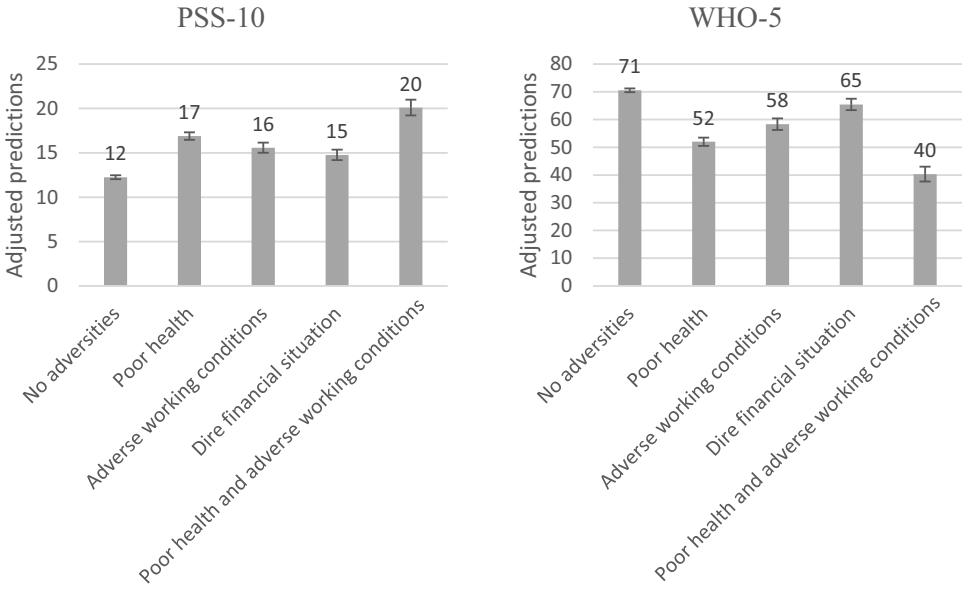


Figure 2. Associations between adversity profiles and mental well-being, measured by PSS-10 and WHO-5. Adjusted predictions with 95% confidence intervals. N (left panel) = 5,295; N (right panel) = 5,338. Controls: Gender, living with a partner, age, workplace size, number of work hours per week, seniority. Cohen's perceived stress scale, PSS-10: Score range 0–40, values 14–26 indicate a moderate risk of stress, and 27–40 a high risk of stress. World Health Organization Well-Being index, WHO-5: Score range 0–100, values 0–35 indicate a high risk of depression and 36–50 a risk of depression.

on cutoffs, only the "no adversities" group is at low stress risk; all others fall into the moderate range.

Similarly, depression risk (WHO-5) is lowest for "no adversities" (71 points) and highest for combined health and work-related adversities (40 points). "Poor health" alone shows greater depression risk (52) than "adverse working conditions" (58) or "dire financial situation" (65). While any adversity reduces well-being, only the combined health and work adversity group crosses the threshold for depression risk.

Last, Figure 3 displays parallel results by job lock situation. Across all profiles, job-locked workers have significantly worse mental well-being. In particular, depression risk is elevated for job-locked workers, with those experiencing "poor health" at risk and those experiencing "poor health and adverse working conditions" at high risk of depression. For PSS-10, all workers facing adversities are at a moderate risk of stress.

Discussion

While existing research highlights the adversities low-skilled older workers face, including health issues, poor working conditions, and financial strain, the

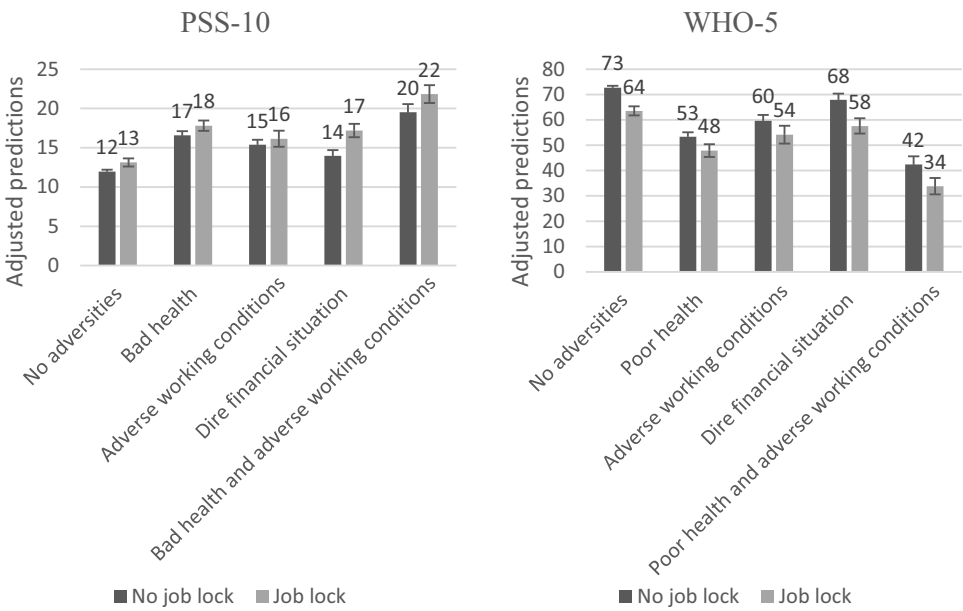


Figure 3. Associations between adversity profiles and mental well-being, measured by PSS-10 and the WHO-5, by workers' job lock status. Adjusted predictions with 95% confidence intervals. N (left panel) = 5,295; N (right panel) = 5,338. Controls: Gender, living with a partner, age, workplace size, number of work hours per week, seniority. Cohen's perceived stress scale, PSS-10: Score range 0–40, values 14–26 indicate a moderate risk of stress, and 27–40 a high risk of stress. World Health Organization Well-Being Index, WHO-5: Score range 0–100, values 0–35 indicate a high risk of depression and 36–50 a risk of depression.

prevalence and intersection of these adversities remain underexplored. Little is also known about the characteristics of affected workers or the link between adversities and mental well-being. Our study addresses these gaps by examining the prevalence and overlap of adversities, worker characteristics across adversity profiles, and their association with mental well-being.

First, our findings show that, despite rising retirement ages, about half of the sample face none of the adversities investigated. While not directly comparable to other labor market contexts, our results contrast with previous studies from the Netherlands and the USA, which find that low-skilled workers are particularly exposed to such adversities (de Breij et al., 2020; Mezuk et al., 2011; van Solinge & Henkens, 2017). The relatively low prevalence of adversities in our study may reflect strong protections against hazardous work and the presence of a supportive welfare state (Eurofound, 2017). Contrary to our expectations, intersecting adversities are rare. Nevertheless, health-related challenges remain prevalent, with general health issues more common than work-impairing conditions. This highlights underlying life-course socioeconomic inequalities and underscores the need for preventive health measures and targeted support to sustain low-skilled workers' participation (Ashton et al., 2020; Nurse et al., 2014).

Second, consistent with previous studies (Hasselhorn et al., 2020; Henseke, 2018), we find that work-related factors are strongly linked to job profiles. Workers facing health or work-related adversities tend to have shorter hours, lower tenure, work in small firms, and report less employer support. In contrast, those not facing adversities typically have longer hours, greater job tenure, and more adjustable workloads. These findings suggest that stable employment conditions reduce exposure to adversities and that workplace accommodations can help mitigate work-related challenges. Our results support earlier work highlighting the role of supportive work environments in prolonging working lives (Mulders et al., 2021). Workplaces can promote continued engagement among older workers by offering flexibility and influence over their tasks and work organization. Providing opportunities for skill development, new roles, and ensuring professional and social inclusion can further encourage continued engagement (Rasmussen et al., 2025).

Third, consistent with previous research, we find that work-related adversities are associated with poorer mental well-being (Amilon et al., 2024), especially when combined with health-related adversities. Studies on the health consequences of prolonged working lives among low-skilled older workers show considerable variation across countries and contexts (Garrouste & Perdrix, 2022). Our findings suggest that these conflicting results may, in part, reflect the diverse late-career experiences of low-skilled older workers.

In line with earlier findings, we also observe that job lock further worsens mental health outcomes, with the most severe effects among

workers in poor health (Fisher et al., 2016). These results suggest that pension system cutbacks – which may increase the risk of job lock – could have unintended mental health consequences. As statutory retirement ages continue to rise, policymakers aiming to protect the mental well-being of older low-skilled workers must address these challenges. Promoting flexible retirement pathways, improving access to occupational health services, and incentivizing employers to provide adjustments that reduce physical and psychological strain can help improve late-life working conditions and mitigate mental health risks among this group (e.g., van Solinge et al., 2023).

Limitations

This study has limitations that should be considered when interpreting the results. First, those facing the most severe adversities or mental health challenges may be underrepresented due to survey nonparticipation or labor market exit (the healthy worker effect). To mitigate this problem, all analyses were adjusted using population weights derived from comprehensive registry data. Moreover, we found no differences in mental well-being scores across age groups (Tables C.3-C.4), suggesting the absence of age-related sample selection.

Second, because we use cross-sectional data, we cannot establish causal relationships between worker and job characteristics and adversity profiles or between adversity profiles and mental well-being. For example, the association between fewer working hours and poor health may reflect a reduction in working hours to protect one's health (rather than implying that working fewer hours leads to worsening health).

Third, Denmark's unique labor market features, such as "flexicurity" and strong protections against hazardous work, limit generalizability to other countries. Nevertheless, our study focuses on older low-skilled workers employed in Denmark's private sector, whose working conditions may be more comparable to those in other countries.

Conclusion

Our results reveal significant diversity among low-skilled older workers. While about half of the studied population faces no adversities, many experience health, financial, and/or work-related adversities. Moreover, such adversities link to poorer mental well-being, especially for those in job lock. Restricting early retirement options may exacerbate these risks, leaving growing numbers of older, low-skilled workers in job lock. Policymakers should consider such unintended consequences before implementing further restrictions on early retirement. Employer support is vital to safeguard worker well-being.

Key points

- Retirement options for low-skilled older workers are increasingly limited.
- Low-skilled older workers often face work, health, and financial adversities.
- Workers facing adversities have lower mental well-being.
- Across adversity profiles, workers in job lock have lower mental well-being.
- Employer efforts to accommodate older workers may reduce their experience of adversity.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This research is supported by The Velliv Association under Grant 21-0887.

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Declaration of use of generative AI

The authors used generative AI tools (ChatGPT version 4) to proofread and edit the language of this manuscript. All suggested changes were carefully reviewed by the authors.

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