

# 3rd International PEROSH Conference on Prolonging Working Life

24–25 October 2024, TNO Leiden, The Netherlands (hybrid)



Location: TNO, Sylviusweg 71, Leiden, The Netherlands

Thursday 24 October 2024

(P) = Present in Leiden

(O) = Online

11.30 – 13.00

Registration & lunch / TNO

13.00 – 13.15

Opening by TNO

## The role of gender (13.15-14.20)

13.15 - 13.35

Ruth van Veelen / TNO (P)

*Breaking taboos around women's hormone-related health (Menstruation, Maternity, Menopause) in the workplace: A case study*

### Background:

Women live longer than men, but in poorer health. This is caused by insufficient focus on women-specific health issues in healthcare systems and workplaces. Women are twice as likely to be diagnosed with burnout. Yet it could be that burnout symptoms are mistaken for women-specific health problems like menstruation or menopause, causing mistreatment and reinforcing gender biases about women at work. Hormone-related health issues are still a taboo in many workplaces, which is costly. Women's invisible suffering could cause higher attrition, sick leave rates and sustainable employment.

### Aim:

Women's Health Initiative TNO aims to break with taboos surrounding women-specific health issues (Menstruation, Maternity, Menopause) at work. TNO developed a scan for organizations, to help employers gain insight in the impact of women's (as compared to men's) hormone-related health issues and their impact work well-being, productivity, and career development. This scan offers an evidence-based approach to make invisible gender-related health stigma in the workplace visible, and help employers create women-friendly workplace cultures.

### Methods:

The scan is an online questionnaire that employees at organizations can fill out anonymously. The scan consists of several modules about 1) general health, 2) hormone-related health issues related to Menstruation, Maternity and Menopause (MMM) 3) coping mechanisms at work 4) barriers and support mechanisms in the work context 5) work and career outcomes). A first pilot study was

conducted to validate the instrument at a large organization. N = 1336 (N = 749 women) employees filled out the online questionnaire.

**Results:**

Preliminary data analyses showed that women (1) experience more guilt and discomfort at work in relation to hormone-related health than men do in relation to general health; (2) were less likely to talk about this (3) perceived talking about hormone-related health at work as a taboo that may threaten career opportunities, and (4) were more likely to conceal hormone-related health issues at work, especially when pain/severity of MMM-related health issues is more prevalent. The tendency to conceal was negatively related to work productivity and engagement, and positively to burnout symptoms.

**Conclusions:**

Invisible stigma surrounding women's hormone-related health issues (MMM) form a threat to sustainable employability of women in the workplace. Lack of recognition and support for women to cope with these issues at work form a risk to human capital loss. This is particularly problematic in an ageing workforce dealing with immense labor shortages, particularly in female-dominated sectors. Data-driven diagnosis and action-research is needed to help organizations support women in the workplace. Our scan contributes to that purpose.

13.35 – 13.50

Katarzyna Hildt-Ciupińska / Central Institute for Labour Protection-National Research Institute (P)

*Women's health behaviors in terms of well-being and maintaining work ability.*

**Background:**

Lifestyle is considered one of the most important determinants of health, which most of us can influence and consciously modify. However, it is necessary to raise health awareness among people so that they know how to do it effectively. The workplace is one of the places of health promotion that promotes the dissemination of knowledge and health care among various groups of people - both men and women, with different levels of education, of different ages, performing different types of work. Due to their life cycle, from puberty through procreation to menopause, women constitute a specific group in terms of health and health care. They also constitute a specific group due to the numerous burdens associated with their social roles. All this contributes to the diverse health needs of women of different ages, but also to numerous risk factors, including the risk of certain diseases.

**Aim:**

The aim will be to present research results on women's health behaviors in terms of their well-being

**Method:**

Questionnaire research using own questionnaire, work ability index, WHO-5, COPSOQ and the Positive Health Behavior Scale. Sample: 900 women aged 18-60 years

**Results:**

index, WHO-5, COPSOQ and the Positive Health Behavior Scale Pilot research conducted among 42 women shows that they rate their health well and declare that they take care of it. The results regarding the undertaken health-promoting behaviors do not fully confirm this, as evidenced by the quite low average score obtained in the Positive Health Behavior Scale (66.4 points out of 102 possible). Similar results were obtained by men tested earlier using the same method; their declarations regarding health care were not reflected in the actual health behaviors undertaken.

**Conclusions:**

There is a need to constantly increase the awareness of women of all ages about the need to take individual care of their health, both in the workplace and outside it, especially in the aspect of the aging workforce.

13.50 – 14.05

Philippe Kiss / Securex Occupational Health Service (O)

*Need for recovery after work and associated risk factors in working menopausal women*

**Background:**

The proportion of women aged 45 or more will grow in the working population. Inevitably, this will entail a higher proportion of menopausal women at work. As mental disorders constitute the main cause of long-term sickness absence and disability retirement, a preventive approach to mental well-being at work is more than necessary.

**Aim:**

Given the increasing proportion of menopausal women in the workforce and the importance of a preventive approach to mental well-being at work, this study aimed to explore relationships between 'need for recovery' (NFR), an early indicator of mental (un)wellbeing, and menopause symptoms and to identify work related factors that are associated with a NFR in Belgian menopausal women.

**Methods:**

760 menopausal women took part in a cross-sectional questionnaire study. NFR, presence of menopause symptoms, job type, age category, work activity, physical workload, psychosocial and physical work environment, work-private life balance and the opportunity to discuss menopause at work were assessed. Uni- and multivariate logistic regression analyses were used to calculate the odds ratios for the presence of a high NFR.

**Results:**

In menopausal women currently experiencing menopause symptoms, 53.3% reported problems while performing their work. The overall prevalence of a high NFR in menopausal women was 41.2%. Women who experienced problems at work had the highest prevalence of a high NFR (61.1%), and constituted a separate risk group for having a high NFR (OR 3.31 vs. never symptoms). Following factors were significantly associated with a high NFR: poor work-private life balance (OR 7.89), physical workload (OR 1.17), discomfort from cognitive demands (OR 1.17), organizational justice (OR 0.86), social support from colleagues (OR 0.87).

**Conclusions:**

Maintaining a good work-private life balance, reducing physical workload, addressing hindrance from cognitive work demands and assuring a fair work distribution are measures that require a culture where open and easy discussion about menopause is possible.

14.05 – 14.20

Suzanne Merkus / STAMI (P)

*Gender and educational differences in work participation and working years lost in Norway*

**Background:**

Understanding factors that influence labor market attachment is useful for policy makers to identify groups for whom interventions to increase work participation may be most beneficial

**Aim:**

This study aimed to quantify the duration of work participation and reasons for working years lost, according to gender and educational attainment, among a Norwegian population.

**Methods:**

Register data on labor market attachment between 2000–2015 were obtained from Statistics Norway. We included five cohorts: individuals turning 20 (N=323 333), 30 (N=386 006), 40 (N=388 962), 50 (N=358 745), and 60 years (N=284 425) between 1 January 2000 and 31 December 2005. Individuals were followed for ten years. Data completeness allowed calculation of the average time spent in work and years lost to health-related absences and non-employment states per cohort. Changes in state probabilities over time were also depicted. Mean differences between genders and educational levels, and corresponding 95% confidence intervals were based on 1000 bootstrap samples.

**Results:**

Both genders spent most time in work; however, per cohort, women worked approximately one year less than men. As cohorts aged, main reasons for working years lost changed from education and economic inactivity to sickness absence and disability pensioning; this trend was stronger for women than men. Individuals with a low education spent fewer years in work and more years in sickness absence and disability pensioning than highly educated peers. This difference tended to be larger for women and older cohorts.

**Conclusions:**

Per cohort, women participated one year less in work than men and, depending on age, spent more time in education, economic inactivity, sickness absence, and disability pensioning. Stronger educational gradients were seen for work and health-related absences for older cohorts and women.

14.20 – 14.35

Break

## **(Chronic) health problems** (14.35-15.40)

14.35 – 14.50

Laura Salonen / Finnish Institute of Occupational Health (O)

*The role of mental health-related healthcare use on work participation after unemployment*

**Background:**

Mental health problems are more prevalent among the unemployed, but less is known about their mental health-related healthcare use. The unemployed are a very heterogeneous group in terms of demographic factors and employment history, and little is known about the prevalence of mental disorders among the unemployed in these different groups and their association with later work participation

**Aim:**

In this study, we examine mental health-related healthcare use among the unemployed and how it is associated with later work participation among different demographic groups and by employment history

**Methods:**

We used a register-based 90 % population sample of 25-59-year-old Finnish residents in 2010, who were unemployed job-seekers between 2014–2016, to study their work participation between 2017–2019. Mental health-related healthcare visits were registered in 2014–2016. Using descriptive methods we analyzed the use of healthcare visits among different demographic groups and regression models with marginal effects to analyze the number of employment months following unemployment

**Results:**

Of the 454,835 unemployed job-seekers around 14,5 % had at least one visit to healthcare due to mental disorders, visits being more common among women and younger individuals. The most common diagnoses were depression and anxiety disorders. Having mental health-related visits to healthcare was associated with an average 5 months fewer employment months over the three-year

follow-up period, the association being stronger in men, over 44 years old and who had a healthcare visit due to a mood [affective] disorder (ICD-10 F30-F39). Next, we will study more closely how the unemployment history within these different sociodemographic groups influences the relationship between mental health-related healthcare use and later work participation

**Conclusions:**

Among unemployed job-seekers, having a healthcare visit due to mental diagnoses was negatively associated with later work participation. The forthcoming results are expected to provide information that can help practitioners recognize the most critical population groups in terms of poor health and employment prospects

15.05 – 15.20

Maria Malliarou / University of Thessaly (O)

*Psychosocial risks and musculoskeletal disorders in the working environment of a hospital*

**Background:**

Work related musculoskeletal disorders are the most common illnesses which affect not only workers but also organizations and the society, due to the entailed high cost. There are many risk factors, but most important are ergonomic and psychosocial, which receive more attention lately. Nurses belong in the working group which is exposed daily to these kinds of risks that affect their wellbeing as well as their work.

**Aim:**

Correlate psychosocial risks with musculoskeletal disorders that nurses face in the working environment of a hospital.

**Methods:**

A cross-sectional study was conducted among 163 hospital nurses who worked in 10 different wards of General Hospital of Katerini, from January to March 2023. A self-administered questionnaire was used to collect data, which included demographic profiles, nursing ward features, the third version of Copenhagen Psychosocial (COPSOQ III) and the Nordic Musculoskeletal Questionnaire. 93 questionnaires were returned but when exclusion criteria were applied, 3 questionnaires were excluded, so subsequently the sample was consisting of 90 nurses (response rate 56%).

**Results:**

Statistically important differences between individual factors and dimension in question of COPSOQ III were not found, except for gender. Working features on the other hand were correlated with psychosocial risks. For example, the increase of nurses working in a ward was positive correlated with demands at work. Conversely, night shifts were negatively correlated with control over working time as well as the work experience of nurses with possibilities for development and quality of leadership. Statistically important difference was not found between musculoskeletal disorders and individual factors. As for the correlation between psychosocial factors and musculoskeletal disorders, the study showed many correlations between dimension of the COPSOQ III like demands at work, work-personal life imbalance, control over work, social support from colleagues and supervisors, job insecurity and satisfaction, interpersonal relations, self-rated health and burnout and the appearance of musculoskeletal disorders to body regions as neck, shoulder, elbows, wrists, hips, upper back and ankles.

**Conclusions:**

Working environment of a hospital has many psychosocial risk factors so in order to be safe, recognition and assessment is needed. Interventions like ergonomics education, acquiring ergonomics equipment, no manual lifting, training on patient handling can increase the risk perception, decreasing frequency and intensity of musculoskeletal pain.

14.50 – 15.05

Anushiya Vanan / VU Amsterdam (P)

*The organizational and sectoral determinants of older workers' healthy pathways to retirement: a scoping review*

**Background:**

Increasing retirement ages are requiring older workers to work up to higher ages. An increasing number of workers can no longer follow a healthy pathway to retirement (HPTR). HPTR is defined as a worker's ability to reach their planned retirement ages while maintaining physical and mental health and work performance (regardless of their starting health). HPTR not only facilitates longer working lives, but it also benefits post-retirement life. HPTR is reflected in concepts such as work ability and work functioning, on which there is ample literature. Much of this literature, including review studies, focus on the individual determinants of older workers' work ability and work functioning. However, studies that explore the influence of the organization and the sector on older workers' work ability and work functioning are yet to be reviewed.

**Aim:**

The purpose of this scoping review is to identify what organizational- and sectoral-level determinants influence the work ability and work functioning of older workers.

**Methods:**

A systematic search is being conducted according to JBI guidelines to identify relevant literature across four databases. Eligible papers are being identified based on inclusion/exclusion criteria.

**Results:**

Results will focus on known and proven determinants of work ability and work functioning, as indicators of HPTR, with an emphasis on organizational- and sectoral-level determinants.

**Conclusions:**

This study will highlight how organizational- and sectoral-level factors, in addition to individual-level factors, improve our understanding of the drivers of HPTR among older workers. We will also pinpoint determinants that may be potential entry-points for improving HPTR.

15.20 – 15.40

Arnold Schriemer / UMCG/Arbo Unie (P)

*The impact of prolonging working life on teachers with hearing loss*

**Background:**

Hearing loss is highly prevalent and the third leading cause of years lived with disability. Hearing loss is associated with burn-out, depression, and work disability. The most frequent cause of adult-onset hearing loss is older age. As a consequence of prolonging working life, a growing number of workers will experience hearing loss, which may affect work participation. Limited research has been done on the consequences of hearing loss in workers, particularly in communicative professions such as teaching.

**Aim:**

Aim of the present study was to examine the association of hearing loss with sustainable employability, work ability, and sick leave among teachers. We also examined long-term changes in employment and work outcomes in teachers with hearing loss. Lastly, we aimed at identifying barriers to and facilitators for the work participation of teachers with hearing loss.

**Methods:**

Dutch teachers were recruited via schools, educational sector organizations, and trade unions. Teachers completed an internet survey questionnaire and performed a valid and reliable online speech-in-noise screening test for hearing loss. The survey measured sustainable employability with the Capability Set for Work Questionnaire (CSWQ). Work ability was assessed with the single-item Work Ability Score. Sick leave in the past three months was self-reported (no/yes; if yes: how many days). CSWQ-scores of teachers with poor, insufficient, and good hearing were compared with ordinal regression analyses. Logistic regression analyses were used to examine the associations of

hearing loss with work ability and sick leave (no/yes). The regression analyses were adjusted for age, sex, level of education, type of work tasks, current work hours per week, and working as a physical education teacher. We performed Kruskal-Wallis tests to compare the number of sick leave days of teachers with good, insufficient, and poor hearing. Seven years after the initial study, we performed a follow-up study. For those who had stopped working during follow-up, we compared retirement age and proportions receiving disability pension in both groups. For those still working, differences between normal hearing teachers and teachers with hearing loss in work outcome changes, i.e. work ability and sustainable employability, were investigated with ANOVA. In addition, teachers with hearing loss answered questions on work participation barriers and facilitators for a thematic analysis.

### **Results:**

Of the participating N=737 teachers, N=505 (68.5%) had good, N=146 (19.8%) insufficient, and N=86 (11.7%) poor hearing. Teachers with poor and insufficient hearing had lower CSWQ-scores as compared with good hearing teachers (OR = 0.57; 95% CI 0.37–0.87 for teachers with poor hearing and OR = 0.68; 95% CI 0.48–0.96 for teachers with insufficient hearing). Compared with good hearing teachers, teachers with poor hearing valued using their knowledge and skills and setting their own goals at work but experienced insufficient opportunities to realise these values in work. Teachers with poor and insufficient hearing had higher odds (OR=2.88; 95% CI 1.74 – 4.76 and OR=1.90; 95% CI 1.29 – 2.80, respectively) of poor-moderate work ability than good hearing teachers. Teachers with poor (OR=2.16; 95% CI 1.32 – 3.55), but not insufficient (OR=1.14; 95% CI 0.76 – 1.71) hearing had higher odds of sick leave than good hearing teachers. Teachers with poor hearing reported on average 5.6 (standard deviation [SD] 14.2) sick leave days in the past 3 months as compared to 3.2 (SD 9.8) days among teachers with insufficient hearing and 2.1 (SD 7.2) days in teachers with good hearing ( $p=0.001$ ). We were able to invite N=325 teachers for the follow-up study. Out of them, n=211 (65%) responded and n=89 were teachers with hearing loss. Among those who had stopped working (n=89), the mean retirement age was 64.6 years for both normally hearing teachers and teachers with hearing loss. At follow-up, n=10 received disability pension of which n=9 had hearing loss ( $p<0.01$ ). No differences were found over time for changes in work outcomes. Barriers for work participation were attending meetings, teaching, and poor classroom acoustics. Facilitators were job satisfaction, cooperation of the work environment, task adjustment, good acoustics, and technical equipment.

### **Conclusions:**

Hearing loss in teachers was negatively associated with sustainable employability, work ability and sick leave. Teachers with hearing loss retired at the same age as normally hearing teachers, but more often received disability pension. No differences were found in work outcomes over time. Our findings demonstrate that hearing loss can be a risk factor for work participation, particularly among older workers in communicative jobs. The barriers and facilitators that we identified are relevant for OH professionals when advising teachers with hearing loss about work participation. Specifically for workers in communicative jobs, we recommend to add periodic hearing screening, such as the online speech-in-noise screening test we used, to periodic health examinations in the occupational healthcare setting. Earlier identification of hearing loss could forestall negative effects of unrecognized hearing loss and facilitate timely audiological and occupational rehabilitative interventions, to prevent work disability. Furthermore, there is an urgent need for longitudinal research on hearing disability, an increasing health problem in an ageing workforce.

## The path to retirement (15.55-16.55)

15.55 – 16.10

Astrid Bosma / Amsterdam UMC (P)

*Older workers' needs in following a healthy pathway to retirement: a qualitative study*

### Background:

Workers have to work longer than before due to an increasing retirement age. Extending paid working lives can have substantial consequences for the health of workers, especially considering the rising trend of chronic diseases in the working population. An increasing number of workers experience difficulties following a healthy pathway to retirement (HPTR), defined as workers' ability to reach their planned retirement age while maintaining physical and mental health and work performance. Amongst others, the work environment can support older workers in reaching the retirement age in good health, e.g. with employer policies. To optimize the support of older workers with their HPTR, it is important to first understand workers' needs regarding HPTR.

### Aim:

The aim of this study is to explore the needs of older workers in following a HPTR.

### Methods:

Focus groups and semi-structured interviews were conducted between February and April 2024 with older workers, recently retired or retiring within the upcoming four years (n = 22). Data were transcribed verbatim and thematically analyzed.

### Results:

Preliminary results showed needs in various domains. In the health domain, workers need to have a right balance between work and personal life, as well as between taking on new challenges and time to recover. In the work domain, workers need employers to take a personal approach to retirement, proactively providing information on retirement, and the (prospect of the) possibility to transfer knowledge and tasks to a successor. Furthermore, workers need to know the financial consequences of retirement.

### Conclusions:

Needs in various domains were identified, with the work domain playing a predominant role in HPTR of older workers. Employers should increase their effort in guiding older workers, by providing information and implementing employer policies that meet workers' needs, to optimally support older workers in following a HPTR.

16.10 – 16.25

Taina Leinonen / Finnish Institute of Occupational Health (P)

*Expected time spent in precarious and limited employment over the working career by occupational group*

### Background:

Characteristics of the employment relationship may influence employees' health and wellbeing. It is therefore important to understand differences between employee groups in exposure to employment insecurity including precarious employment. While it is known that employees who are younger and in lower socioeconomic positions are more commonly exposed to precarious employment, less is known of cumulative exposure over the working career.

### Methods:

We examined occupational group differences in how the remaining working years after age 25 are expected to be distributed between time spent in precarious and other types of employment based on a novel register-based measure.

We used register data on wage-earners living in Finland in 2018 (N = 1 812 847). Applying the Sullivan method, we calculated expectancies of time spent in precarious and non-precarious employment (based on a novel score measure with items on temporariness, agency employment, multijob

holding, underemployment, and income level) as well as limited employment (due to which precariousness could not be assessed) between age 25 and 63 by main occupational group.

**Results:**

Precarious employment expectancy was highest among Skilled agricultural, forestry and fishery workers (3.4 years among men and 5.4 years among women), Elementary occupations (2.7 years among men and 4.5 years among women) and Service and sales workers (2.5 years among men and 3.7 years among women). In these occupations, much time was expected to be spent also in limited employment (4.1–6.4 years among men and 3.8–6.9 years among women). Skilled agricultural, forestry and fishery workers and workers in elementary occupations were expected to spend a large portion of their working careers (24% men and 30% women) in either precarious or limited employment, whereas for male and female managers the numbers were around 4% and 6%, respectively.

**Conclusions:**

Skilled agricultural, forestry and fishery workers, workers in elementary occupations as well as service and sales workers are disadvantaged in terms of accumulation of precarious employment over the working career. The same occupational groups spend excessive time with limited employment, which may have similar elements as precarious employment and thus reflect broader insecurity in the labour market. These occupational groups may require special attention to ensure that poor employment conditions do not compromise their health and work ability.

16.25 – 16.40

Sander van Zon / TNO (P)

*Strenuous physical or mental work: early exit from paid employment or working until the statutory retirement age in poor health?*

**Background:**

In the Netherlands, the statutory retirement age has been steadily increasing and it has become more difficult to retire early through the sobering of previously generous early retirement schemes. However, reaching the statutory retirement age, especially in good health, is a challenge for many older workers.

**Aim:**

The aim of this study is to examine, among older workers with strenuous physical or mental work, the longitudinal associations between sociodemographic, work, personal, and health factors and work exit defined as working until the statutory retirement age in good health, poor health, and employment exit before the retirement age.

**Methods:**

The study was embedded in the Study on Transitions in Employment, Ability and Motivation. The sample consists of participants who were working at age 60 and for whom it was clear if and how they exited employment (n=3,941). Multinomial regression analyses were performed to examine the association between aforementioned factors and work exit, separately for those with strenuous physical (n=654 (16.6%)) and mental work (n=465 (11.8%)).

**Results:**

In both groups, higher mastery was associated with lower odds of working until retirement in poor health and with employment exit. Sickness absence in the previous year was associated with employment exit in both groups, but only in those with strenuous physical work it was also associated with working until retirement in poor health. In both groups, a poor financial situation was associated with lower odds of employment exit, while obesity was associated with higher odds of working until retirement in poor health.

**Conclusions:**

Health, mastery and workers' financial situation play a major role in whether workers can work until the statutory retirement age, and whether this is in good health. As governmental policies for

prolonging working lives are here to stay, it is pivotal to adequately accommodate workers that need additional support.

16.40 – 16.55

Rachel Hastings / STAMI (P)

*Occupational exposures and the dynamics of working life patterns: a scoping review of the literature and priorities for future research*

**Background:**

Concern over supporting an ageing population and longer life expectancy has increased focus on prolonging time individuals spend in paid employment. Several factors influence this, including work-related exposures. In recent years, research has started to focus on working life patterns rather than static labour market outcomes, and the influence of occupational exposures on these patterns. A comprehensive overview of the field would be helpful for directing future work.

**Aim:**

This scoping review aims to (1) systematically map the research literature concerning the associations between occupational exposures and working life patterns and (2) identify future research needs.

**Methods:**

A systematic search from database inception until April 2024 was performed in electronic databases (PubMed, Web of Science, Embase, Scopus). Studies were included if they examined the associations between at least one occupational exposure and a dynamic measure of working life patterns, defined as working life expectancy (WLE), working years lost (WYL) or labour market participation trajectories.

**Results:**

Sixteen studies were included in the review; of these, fifteen were published after 2019. Only three were conducted outside the Nordic countries. The studies were heterogenous with regards to exposure and outcome measurements, study populations and analysis methods. This made comparison difficult. Several studies included only a single group of exposures, with chemicals and occupational environmental exposures being the least common. All studies except one measured exposure at one point in time, and many adjusted for health-related variables, thus controlling for intermediate variables lying on the path between the exposure and outcome. In general, studies observed a positive association between physical workload factors and reduced work participation and increased time out of work over time, particularly due to sickness absence and disability pension, regardless of the measure used to characterize working life patterns. There was no consistent association of psychosocial exposures with dynamic working life patterns.

**Conclusions:**

Future studies should consider how exposures and outcomes are defined and whether they are concerned with the total effect or only the direct effect. Where possible, researchers could adopt an exposome approach, where cumulative effects over time of multiple exposures are incorporated into the analyses. This will strengthen the validity of associations between occupational exposures and working life patterns and give valuable insight into how working lives can be extended.

16.55 – 17.10

Break

## **Motivation, hybrid working and age discrimination (17.10-17.55)**

17.10 - 17.25

Melanie Ebener / University of Wuppertal (P)

*Working longer in Germany – is motivation to work more relevant than health?*

**Background:**

In Germany, both demographic ageing and the shortage of workers are pronounced. Thus, the demographic and economic logic would speak for the increased employment participation of older workers. However, in the past years, employment rates of the older workforce (64 years +) remain stable on a low level for men and women.

**Aim:**

What are the reasons for many older workers for their wish to leave early? What would make them work longer? And why do workers leave early?

**Methods:**

Data of the fourth wave (2022/23) of the German representative lidA-Study ([www.lida-studie.de](http://www.lida-studie.de)) is used to answer the above questions. lidA is a prospective cohort study investigating work, age, health, and labour market participation among the German babyboomer generation. In wave 4, 8.884 persons from three birth cohorts (born 1959: 63 years old, 1965: 57 years, and 1971: 51 years) were interviewed in 2022/23.

**Results:**

The findings confirm a strong early exit culture. Of those, still employed and not in retirement ( $n=7.159$ ), only a minority (1959: 22%; 1965: 9%; 1971: 12%) wanted to work until regular retirement age. The main reason for the widespread wish to leave employment early is the wish for more self-determination in life ("more free time": 84%), followed by "at some point work has to end" indicating an earned right to leave early. "Strenuous work" (45%) and "health problems" (41%) ranked 4 and 5. In all birth cohorts, a widespread willingness was found of continuing to work longer than originally wished. This, however, only under certain conditions indicating self-determination (66%: "if I could have a say how much to work"; 56%: "... when to work"), followed by a range of reasons concerning pay and stimulating work. The reasons for real early exit differed between early old age retirees ( $n=370$ ) and disability retirees ( $n=269$ ). Among old age retirees the main reason was "more time for family and friends" (73%) indicating the need for self-determination, followed by "I wanted to stop as early as possible" (71%). "Strenuous work" (63%) ranked 3rd and "health reasons" 5th (61%). The main reasons for early exit of the disability retirees was – as expected – "poor health" (99%) and "strenuous work" (56%).

**Conclusions:**

While health and strenuous work contribute to early exit intentions and real early exit, the dominant reasons are found in the wish for more self-determination and a wide spread sense of entitlement to early exit. Should politics and economy in Germany wish to retain more older workers in employment, they have to succeed in making them want this. This cannot occur without a fundamental re-consideration of their working conditions.

17.25 – 17.40

Noortje Wiezer / TNO (P)

*Navigating the return to the office: an ecological momentary assessment of stress, work pleasure and relatedness in older office workers*

**Background:**

The COVID-19 pandemic has increased remote work and hybrid working is becoming common post-pandemic.

**Aim:**

This study's objective is to observe how work location (home or office) affects the daily well-being (i.e., daily perceived stress and daily work pleasure) of older-aged office workers (aged  $\geq 45$ ), particularly regarding the role of relatedness with co-workers.

**Methods:**

Using a smartphone-based ecological assessment survey, we measured work location, daily perceived stress, work pleasure, and relatedness among 109 older-aged office workers from a Dutch organization ( $N_{total} = 201$ ). This took place during the first week of each month from April to June 2022 (e.g. directly after post-governmental measure relaxation). At baseline, demographic data like

sex and job tenure for control variables were collected. Multilevel regression analyzed daily responses to explore how work location, relatedness, and their interaction impact daily wellbeing. Results The work location (home or on-site) on a given day does not significantly affect either daily perceived stress or daily work pleasure, but does positively affect relatedness. Relatedness is associated with reduced daily perceived stress levels and enhanced daily work pleasure. There is no significant interaction between relatedness and work location regarding well-being outcomes for older office workers. Conversely, an additional supportive analysis on younger office workers (aged < 45, N = 87) demonstrates that working on-site does indeed exhibit stronger relatedness effects than remote work.

### **Conclusions:**

The role of relatedness with co-working is important for hybrid workers for younger workers, but seems to be less important for older workers.

17.40 – 17.55

Pravinkumar Digamberrao Ukhlikar / Government Industrial Training Institute  
India (O)

*Ageing and legal Status in India; a case study*

### **Background:**

Age diversity is a topic that deserves attention in India. Contrary to the popular perception that India is a young country, the data shows that India's work force is ageing or, becoming older an average. According to the Centre for Monitoring Indian Economy (CMIE)- 1. Those aged 15 years or more but less than 30 years has fallen from 25.5% in 2019-20 to 21.9% by December 2020. 2. Those aged 30 years or more but less than 45 years, has fallen from 37.6% to 36.1%. 3. Those aged 45 years and older has risen from 36.9% to 42% Because of the reluctance to hire experienced elderly professionals over 50 years of age by the Indian corporate, these professionals are struggling for economic security. Whereas, the Indian legal framework does not have protection against this age discrimination. Therefore, in this paper we offer our view points by studying two individual cases of an experienced professionals age 50 years and above, that the challenges and biases faced by them from the HR corporate while seeking employment. This perspective article also examines the gaps in the Indian legal framework for protection against age discrimination in private as well as Government sector in India.

### **Aim:**

In this study, we have sought to build a deep understanding of Ageism as experience by professionals while seeking job opportunity in Indian corporate. The emphasis has been on understanding the strong negative bias from HR corporate towards hiring anybody above the age of 45 years. This paper aims to examine the gaps and opportunities in the Indian legal framework against age discrimination. This study will help to address how experienced professionals in India are facing the age discrimination from corporate for employment and what measures required to be taken to prohibit the same.

### **Methods:**

The methodology used for the study was thematic analysis. The data were collected from selected and consented samples, 2 known individual professionals over 50 years and 5 HR from corporate. Each participant was interviewed using semi structured, open ended questionnaire. The descriptive research methodology has been used for the purpose of finding gaps in Indian legal framework against age discrimination in employment. The data were extracted from the open source of law and judiciary department of Government of India. Simple statistical tools such as percentages and averages been used in this study. Data that will be presented through tables, info graphic and figures.

### **Results:**

1. Study revealed that, in the Indian corporate hiring anybody above the age 45 as a filter (ATS- Applicant Tracking System) into the hiring process. 2. The Indian corporate is having negative bias that aging professionals often encounter, common concerns include outdated skills, higher salary

expectations or potential health issues. These stereotypes can prevent seasoned individuals from securing meaningful employment opportunities. 3. In India, the age of retirement in private sector is not uniform. Also, in Govt. sector for central Government it is 60 years whereas, for state Government it varies from state to state i.e. for Kerala it is 55 year, for Punjab and Assam it is 60 years and for Maharashtra state it is 58 years. 4. India does not have codified law that specifically deals with matters relating to discrimination on the basis of age.

#### **Conclusions:**

It's essential for Indian corporate to combat ageism and foster a culture that values experience and expertise over age. Implementing more inclusive hiring practices, offering relevant training programs and providing flexible work arrangements can go a long way in promoting age diversity in the workplace. Since, there is no codified law on age discrimination in India; there is no designated statutory body which deals with matters pertaining to age discrimination. As there is no statutory protection available only common law actions can be instituted where discrimination on the basis of age is highly unjustified. In conclusion, there is a need for employees, organizations and decision makers to create policies for tailoring work demands to individual needs and abilities for ageing professionals, because work is the main source of income for consumption and savings for majority of them. It serves as an anchoring function in society and can be source of dignity and purpose.

17.55 – 18.45                      Drinks / TNO

19.30                                 Dinner / Fletcher Hotel Leiden

Friday 25 October 2024

09.00 – 09.30                      Coffee/tea

## **Lifelong learning/skills** (9.30-10.15)

09.30 – 09.45                      Linda Koopmans / TNO (P)  
*Lifelong learning: The key to maintaining a skilled labour force*

#### **Background:**

Fostering lifelong learning is high on the agenda in Europe, to maintain a skilled (older) labour force and futureproof organizations. This is prompted by the ageing society, but also by technological developments and sustainability goals.

#### **Aim:**

The goal of this research is to show the long-term effects of lifelong learning (informal learning, formal learning and a combination of both) on outcome measures relevant for employees (e.g. job satisfaction, work ability) and organizations (e.g. productivity, skills match). Also, a framework is presented on how organizations can foster a positive learning culture.

#### **Methods:**

Longitudinal data from the Dutch Cohort Onderzoek Duurzame Inzetbaarheid (CODI) with waves from 2016-2021 was used to examine long-term effects of lifelong learning. Depending on the outcome measure, sample size ranged between 2.682 and 3.816 Dutch employees. The framework for how to foster a positive learning culture was based on literature research.

#### **Results:**

Both informal learning and combination of informal-formal learning showed a positive relation with employee job satisfaction, work engagement, work ability, perceived labor market position,

promotion, income, skills match with the job, innovative behavior and productivity 3 years later. Formal learning showed a positive (but less strong) relation with job satisfaction, perceived labor market position, promotion, income, and innovative behavior, but not on work ability, work engagement, skills match and productivity. There was no relation with turnover or absenteeism.

**Conclusions:**

This is one of the first studies to show the long-term effects of lifelong learning. The study shows that it is especially beneficial to invest in informal learning and combined learning in the workplace, as it helps both employees and organizations. Organizations can improve learning in the workplace by using the presented framework as a guide.

09.45 – 10.00

Lars Andersen / National Research Centre for the Working Environment (O)  
*Factors Optimizing the Benefits of Skills Development for Employees Aged 55 and Older in the Danish State Sector*

**Background:**

As the workforce ages, maintaining and developing the skills of older employees becomes increasingly important. However, little is known about the factors that optimize the benefits of participating in skills development for older employees. This study addresses this gap in the context of the Danish state sector, where a significant portion of the workforce is in this age group.

**Aim:**

This study aimed to identify key factors that optimize the benefits of skills development for employees aged 55 and older in the Danish state sector, focusing on their ability to apply newly acquired skills in their daily work.

**Methods:**

Cross-sectional survey among 55+ employees in the Danish State Sector (n=53,673, 49% response rate). For the analyses, we included only those who had participated in skills development during the last two years. Multivariate regression analyses were performed to determine factors significantly influencing the application of new skills in daily work after participating in skills development (courses, formal education, and other types of skills development).

**Results:**

More than half of the participants reported only minor or moderate ability to apply new skills in their work after participating in skills development. Four main factors were found to significantly enhance the application of new skills: 1) perceived need for the skills development, 2) motivation to participate, 3) discussion with managers about applying new skills, and 4) discussion with colleagues about applying new skills. Most participants had limited discussions with managers (66-78%) and colleagues (71-75%) about applying new skills.

**Conclusions:**

There is significant potential for improving the benefits of skills development for 55+ employees in the Danish state sector. Key recommendations include conducting needs and motivation assessments before participation in skills development activities, and ensuring follow-up discussions with both managers and colleagues afterward. These steps are crucial for optimizing the application of new skills in the workplace.

10.00 – 10.15

Karina Seeberg / National Research Centre for the Working Environment (P)  
*Enhancing Labor Market Participation: The Role of Skills Development in Middle-Aged and Older Workers – Insights from a Systematic Review of Prospective Cohort Studies*

**Background:**

Continuous skills development is important for keeping up with new demands in workplaces and may also influence labour market participation.

**Aim:**

This systematic review aims to determine whether skills development affects labour market participation among middle-aged and older workers, providing valuable insights for policymakers and employers seeking to extend work life and improve workforce participation.

**Methods:**

A systematic review following Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines was conducted. We searched Web of Science Core Collection, PubMed, EBSCO, ProQuest, Ovid and Google Scholar until end of May 2023. Eligibility criteria were; 1) prospective cohort studies 2) workers aged 35 years and above 3) participation in or opportunities to participate in skills development 4) outcomes related to labour market participation and 5) studies published in English or Scandinavian languages. Two independent reviewers extracted data, assessed risk of bias (Newcastle Ottawa Scale) and evidence (GRADE) of the included studies.

**Results:**

The literature search identified 5,147 records, of which 19 (n=1,089,749 and 759,931 person years) met the inclusion criteria. GRADE indicated a “very low” quality of evidence for all outcomes. Overall, 12 studies found an association: 1) four studies found that skills development / opportunities for skills development reduced early retirement, 2) one study found that a lack of skills development increased the likelihood of early retirement, 3) seven studies found that skills development / opportunities for skills development were associated with working longer.

**Conclusions:**

This systematic review presents varied findings concerning the link between skills development and labour market participation. The results underscore the need for further research to explore the specific mechanisms by which skills development influences labor market participation and to identify effective interventions that promote continuous learning and development among middle-aged and older workers. This systematic review is registered with PROSPERO (CRD42023419005)

10.15 – 10.30

Break

## Tools/Interventions (10.30-12.00)

10.30 – 10.45

Cleo Varianou-Mikellidou / European University Cyprus (O)

*Managing ageing workforce and Occupational Health and Safety Challenges*

**Background:**

Working environment is constantly changing with ageing population increasing. Due to the changes in the working pattern, new emerging risks have been introduced with many challenges to be managed. Nowadays, Occupational Safety and Health (OSH) management should be able to adapt to changes with the use of tools/techniques and consider emerging risks within the risk assessment, the procedures and policies. Occupational Health and Safety Performance (OHSP) is acknowledged as one of the factors affecting the future of an organisation and should be considered when dealing with OSH management.

**Aim:**

Aiming to maintain sustainability, by applying effective OSH interventions and decision-making techniques enhancing OHSP, in a healthy and safe environment, the main purpose of this study is the development of a tool, which might be used as an integrated part of an organization's Occupational Health and Safety System (OHSMS) and an applied OSH intervention. The objectives are a) to integrate OSH with individual characteristics such as ageing factor and b) to define the position of such a tool within an OHSMS.

**Methods:**

To respond to the requirements of ageing challenge, Work Individual Performance tool has been developed based on the following main aspects: 1) literature review related to OSH and ageing and 2) meetings with OSH experts and practitioners (focus groups) to get feedback during the development of the tool. Thus, the methodology that has been followed was quantitative along with qualitative.

**Results/conclusions**

The existence and integration of practical tools within an OHSMS becomes a necessity, since industrial systems are forced to be adapted based on challenges that are constantly arising including ageing. WIP tool might be used by organisations irrespective of their size or economic activity, to evaluate their workers performance and state of well-being.

10.45 – 11.00

Tania Goderis / AZ Alma (O)

*eUlift - an advanced educational tool that offers comprehensive training in ergonomic patient handling, integrating cutting-edge technology and evidence-based practices*

**Background:**

Effective patient handling is critical in healthcare settings to prevent injuries among caregivers and ensure patient safety. eUlift, an advanced educational tool, offers comprehensive training in ergonomic patient handling, integrating cutting-edge technology and evidence-based practices. This presentation aims to demonstrate the functionalities of eUlift in enhancing the training of (future) healthcare professionals, with a focus on its effectiveness in improving ergonomic practices and patient handling techniques.

**Methods:**

Different studies were employed to develop the full training tool eUlift: several literature reviews, feasibility studie, observational studie and reliability study.

**Results:**

eUlift features: handbook, integrated assessments, 3Danimation-based patient handling and an interactive learningpath. All features are available in several languages.

**Conclusions:**

eUlift demonstrates substantial potential in improving patient handling training through its innovative, technology-driven approach. The tool's comprehensive coverage of ergonomic principles, coupled with interactive and practical components, significantly enhances the learning experience for healthcare professionals. Future developments should focus on expanding its scope to cover more specialized patient handling scenarios.

11.00 – 11.25

Victor Gonzalez / SINTEF Digital (P)

*An evidence-driven framework for age-inclusive, healthier work environments*

**Background:**

The aging global population underscores the need to understand health drivers in old age. In 1950, only 12% of Europeans were over 65; today, it's 19.2%, and by 2050, it will exceed 36%. However, longer life doesn't guarantee healthy, independent aging, often leading to more chronic diseases and healthcare challenges. The rising number of older workers, driven by higher retirement ages and economic needs, presents additional issues in maintaining health and employability. National occupational health systems must address these challenges and the increasing prevalence of chronic conditions. The WAge project aims to create a framework to assess age-related physical and psychosocial risks to inform better policies and working conditions.

**Aim:**

The WAge project aims at enhancing intervention development and policy-making by modeling complex interactions between work environment risk factors across different age groups. It will identify processes for problem definition, evidence application, and solution selection through strong stakeholder representation.

**Methods:**

Using state-of-the-art methods, WAge will collect, analyze, and synthesize evidence on the impact of physical and mental health risk factors, considering age differences. WAge proposes an age-sensitive approach to address factors related to workers' health and well-being, providing integral, policy-relevant evidence. The project will target four manufacturing industry cases across three countries: Spain, Portugal, and Poland. These countries, which had relatively young populations until recently, face rapid aging and have prioritized increasing older workers' labor market participation through pension reforms and employment measures, with less focus on working conditions and occupational safety and health (OSH). The project will adhere to data sovereignty principles, ensuring workers control their data and addressing privacy, data security, and misuse concerns.

**Results:**

WAge will develop an age-sensitive framework to assess and understand interactions between psychosocial and physical factors for healthy working environments. The project will generate extensive evidence to characterize these factors across age groups. It will use system dynamics and participatory research to provide evidence for designing interventions and policies.

**Conclusions:**

By developing a comprehensive framework to assess and understand the interactions between physical and psychosocial risk factors across age groups, WAge aims to identify and address the root causes of health inequalities in the workplace. This will foster more inclusive workplaces, ensuring all workers, regardless of age, have access to safe and healthy working conditions. This is increasingly important as the number of older workers rises due to population aging and higher minimum pension ages.

11.25 – 11.45

Svetlana Solovieva / Finnish Institute of Occupational Health (O)  
*European Job Exposure Matrix (EuroJEM) for physical workload and psychosocial factors: Exposome Project for Health and Occupational Research (EPHOR)*

**Background:**

Job Exposure Matrices (JEM) can provide useful workers' exposure data in the absence of individual exposure information. Over the past four decades JEMs for a range of different exposures, including physical workload and psychosocial factors have been developed in several countries. Generalizability and cross-national use of the existing JEMs have been discussed and few efforts have been made to develop international JEMs. A good performance of an international JEM could be achieved via the harmonization of existing JEMs, since they will provide a standardized exposure assessment across the countries and different time periods.

**Aim:**

As part of the Exposome Project for Health and Occupational Research (EPHOR) we aimed to harmonize JEMs existing in Europe and to construct a gender-specific European JEM (EuroJEM) for occupational physical workload and psychosocial factors to be used in epidemiological studies based on large European cohorts.

**Methods:**

Through literature search we identified 12 JEMs for occupational physical workload factors and 12 JEMs for psychosocial factors. The identified JEMs were reviewed for similarities with regard to included exposures, exposure definitions and assessments, as well as the comparability of occupational coding systems. For the harmonization and construction of the EuroJEM for physical

workload and psychosocial factors we selected four (from Finland, France, Norway and Sweden) and three (from Finland, Norway and Sweden) gender-specific JEMs, respectively. We used logistic regression to test the predictive validity of the EuroJEM in the national cohorts by examining associations of the relevant JEM exposure measures with musculoskeletal symptoms (low back, shoulder and knee pain) and diagnosed depression. All analyses were done for men and women separately.

#### **Results:**

The occupational axis of the EuroJEM includes 374 occupational ISCO-88 (COM) codes. The matrix includes five physical workload factors (heavy lifting, fast breathing due to physical workload, working in forward bent posture, working with hands above shoulder level and kneeling/squatting) and two psychosocial factors (high job demands and low decision authority). Exposures are expressed in five categories of the proportion of exposed (0-5%, 6-24%, 25-49%, 50-74% and 75-100%) for physical workload factors and in four categories (0-24%, 25-49 %, 50-74 % and 75-100 %) for psychosocial factors. In both genders, the following exposure-response associations were statistically significant: heavy lifting with low back, shoulder and knee pain; fast breathing due to physical workload with low back and shoulder pain; working in forward bent posture with low back pain; working with hands above shoulder level with shoulder pain; and kneeling/squatting with knee pain. Low decision authority statistically significantly increased, while high job demands decreased the risk of diagnosed depression in both genders.

#### **Conclusions:**

The constructed gender-specific EuroJEM for physical workload and psychosocial factors showed good performance and can therefore be considered as a valid instrument for exposure assessment in large-scale epidemiological studies, when more precise methods are not feasible.

11.45 – 12.00

Pravinkumar Digamberrao Ukhlikar / Government Industrial Training Institute  
India (O)  
*Impact of Ageing on Workability: A case study with an Intervention capsule*

#### **Background:**

In India, retirement age for the Maharashtra State employee is 58 years. Industrial Training Institute Jalna (ITI Jalna) is state owned skill Training Institute responsible for delivering vocational training. Fifteen out of forty-one regular employees of ITI Jalna are over 50 years of age. It was observed that these ageing employees of ITI Jalna show poor workability. Imparting quality vocational training is a mandate for ITI Jalna. Ageing professionals and legal framework in Indian context Background:- Age diversity is a topic that deserves attention in India. Contrary to the popular perception that India is a young country, the data shows that India's work force is ageing or, becoming older an average. According to the Centre for Monitoring Indian Economy (CMIE)- 1. Those aged 15 years or more but less than 30 years has fallen from 25.5% in 2019-20 to 21.9% by December 2020. 2. Those aged 30 years or more but less than 45 years, has fallen from 37.6% to 36.1%. 3. Those aged 45 years and older has risen from 36.9% to 42% Because of the reluctance to hire experienced elderly professionals over 50 years of age by the Indian corporate, these professionals are struggling for economic security. Whereas, the Indian legal framework does not have protection against this age discrimination. Therefore, in this paper we offer our view points by studying two individual cases of an experienced professionals age 50 years and above, that the challenges and biases faced by them from the HR corporate while seeking employment. This perspective article also examines the gaps in the Indian legal framework for protection against age discrimination in private as well as Government sector in India.

#### **Aim:**

In this study, we have sought to build a deep understanding of Ageism as experience by professionals while seeking job opportunity in Indian corporate. The emphasis has been on understanding the strong negative bias from HR corporate towards hiring anybody above the age of 45 years. This paper

aims to examine the gaps and opportunities in the Indian legal framework against age discrimination. This study will help to address how experienced professionals in India are facing the age discrimination from corporate for employment and what measures required to be taken to prohibit the same.

**Methods:**

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**Results:**

1. Study revealed that, in the Indian corporate hiring anybody above the age 45 as a filter (ATS- Applicant Tracking System) into the hiring process. 2. The Indian corporate is having negative bias that aging professionals often encounter, common concerns include outdated skills, higher salary expectations or potential health issues. These stereotypes can prevent seasoned individuals from securing meaningful employment opportunities. 3. In India, the age of retirement in private sector is not uniform. Also, in Govt. sector for central Government it is 60 years whereas, for state Government it varies from state to state i.e. for Kerala it is 55 year, for Punjab and Assam it is 60 years and for Maharashtra state it is 58 years. 4. India does not have codified law that specifically deals with matters relating to discrimination on the basis of age.

**Conclusion:**

It's essential for Indian corporate to combat ageism and foster a culture that values experience and expertise over age. Implementing more inclusive hiring practices, offering relevant training programs and providing flexible work arrangements can go a long way in promoting age diversity in the workplace. Since, there is no codified law on age discrimination in India; there is no designated statutory body which deals with matters pertaining to age discrimination. As there is no statutory protection available only common law actions can be instituted where discrimination on the basis of age is highly unjustified. In conclusion, there is a need for employees, organizations and decision makers to create policies for tailoring work demands to individual needs and abilities for ageing professionals, because work is the main source of income for consumption and savings for majority of them. It serves as an anchoring function in society and can be source of dignity and purpose.

12.00 – 13.30

Lunch / TNO

13.30 – 14.00

Thank you and goodbye