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Psychosocial work environment risks for museum workers in Latvia

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Abstract. In Latvia, as elsewhere in the world, psychosocial risks at work are considered to be a topical occupational risk in every sector of the economy, including the cultural sector. The aim of this study was to investigate the psychosocial risks of the working environment for museum workers in Latvia. The study involved 303 respondents from different museums in Latvia. A staff survey was conducted, and psychosocial risks at work were assessed using the short version of The Copenhagen Psychosocial Questionnaire - COPSOQ III. The survey found that 73–77% of museum employees are women, with about a quarter of respondents reporting working more than 40 hours per week. Work is often performed in a forced posture, 28.1% of respondents complain of overwork, 70.3% of respondents report an unsuitable working environment, almost half of respondents indicate that they are exposed to harmful chemicals at work, and almost all employees report low pay. The results of the COPSOQ survey show that the main reasons why the majority of respondents have chosen to work in the existing museum are: the support of colleagues, a good atmosphere, the opportunity to use knowledge and skills, as well as the meaning of work. Future research will focus on using cognitive tests to better understand the psychosocial risks faced by museum workers.

Key words: COPSOQ, museums, psychosocial risks, work environment.

INTRODUCTION

Psychosocial risks at work are identified as major concerns to occupational health and safety (Roussos, 2023). These risks at work have a serious economic impact on all types of enterprises, regardless of their size and sector (Leka et al., 2011). In Latvia, psychosocial risks at work are also considered to be important workplace risks in every sector of the economy, including the cultural sector.

According to the International Labour Organisation definition, psychosocial risks are interactions between the work environment, work content, organisational conditions and employees' abilities, needs, culture, personal considerations, which through perception and experience can affect health, work performance and work satisfaction (International Labour Organization - ILO, 1986; Oakman et al., 2022). These risks

include the culture and functions of the organisation, their role in the organisation, the workload and pace of work, and the relationships between employees. Ongoing changes at work, such as downsizing, outsourcing, the rapidly increasing use of information and communication technologies, flexible work schedules, demand for knowledgeable and skilled employees, shift work, lack of work experience, etc., create new psychosocial risks in organisations and have a drastic impact on the psychological health of employees (Dragano & Lunau, 2020; Rick & Brimner, 2000). The most common psychological health disorders are stress-related disorders. The spectrum of stress-related harm is quite broad. It includes insomnia, anxiety, migraine, stomach ulcers, diabetes, allergies, skin diseases, oncological diseases, headaches, back pain, joint pain, accidents, suicides (Sohail, et al., 2015; Roja et al., 2016). The sudden introduction of new working patterns often causes stress for employees (Di Tecco et al., 2023; Pavlista et al., 2024). Scientists have proved that long working hours have a negative impact on sleep and sleep quality (Leka & Jain, 2010). Particular attention is paid to cardiovascular diseases caused by stress at work (high blood pressure, atherosclerosis, ischaemic heart disease, etc.), depression and consequent work-related unproductivity. Employees' contribution at work is often not properly valued. Imbalances between employees' contribution at work and its material rewards have been shown to increase the risk of cardiovascular diseases and affect mental health (Peter & Siegrist, 1999; Belkic et al., 2004; Van Veldhoven et al., 2005). Unstable or insecure employment, including contract work, short-term contracts, can also cause stress, fatigue, back and muscle pain, accidents, can impair mental health and have a negative impact on the employee's behaviour (Leka & Jain, 2010; Backhaus et al., 2023). This is also confirmed by the International Labour Organisation, which points out that, according to studies, psychosocial risks at work not only cause serious physical and mental health problems for employees, but also undermine the image of the organisation and productivity in general (ILO, 2014).

The main psychosocial risks for museum staff are: high workload and time pressure, emotionally stressful environment, work-life imbalance and inequality between colleagues (Iordache et al., 2022). Museum workers are also exposed to other risks, the most common of which are dust, mould, pesticides, heavy metals, organic solvents, noise, microclimatic fluctuations, forced working postures, visual and bodily strain, which are often amplifiers of psychosocial risks (Lindstrom & Mantysalo, 1987; Bliese et al., 2017; Klicker-Wiechmann et al., 2022). Several researchers have shown that psychosocial risks at work contribute to work related musculoskeletal disorders - WRMSD-s (Gómez-Galán et al., 2017; Chen et al., 2022). For museum staff, the daily working environment could be emotionally stressful, as staff often engage in an exciting but self-traumatising presentation of exhibits (Hardin, 2020). Working in emergency situations such as war, floods, earthquakes could cause anxiety, anger, denial, guilt, sadness and other negative feelings (Kennedy & Lockshin, 2022). Research shows that a well-organised physical and psychosocial environment improves performance and personal development, as well as the mental and physical well-being of employees (Pastare et al., 2020; Kalkis et al., 2024; Lundqvist et al., 2024).

The aim of this study was to investigate the psychosocial risks for employees working in Latvian museums.

MATERIALS AND METHODS

1. A questionnaire was developed and applied. Respondents were briefed on the purpose of the study. They were guaranteed confidentiality and anonymity. The questionnaire was voluntary. The questions were semi-open-ended, giving respondents the option to tick one of the answers given or to write their answer in the 'other' section. At the end of the questionnaire, respondents had the opportunity to write a comment on the questions in free text. Respondents answered questions related to gender, age, profession, length of service in the profession, location of the museum in Latvia, job duties to be performed in the museum. The questionnaire included questions about risks in the work environment, working hours, weekend work, behavioural habits and leisure activities (smoking/non-smoking, drinking/non-drinking, daily physical activities and for how long).

2. The closed-ended questionnaire was The Copenhagen Psychosocial Questionnaire, developed by researchers at the Danish National Centre for Work Environment Research. Short, medium and long versions of this questionnaire are available, as well as national validated versions which necessarily include questions from the short version and some of the questions from the medium or long version. The questions in the short version are mandatory and the questionnaire can be supplemented with questions from the medium or long version as needed. The survey is anonymous, must ensure the protection of respondents' data and is voluntary (Llorens-Serrano et al., 2019). Since 2007, the COPSOQ survey has been maintained and developed by the COPSOQ International network in Germany. As of 2019, a third version of the survey, COPSOQ III, is available. The third version takes into account current trends in the work environment (e.g., work-life conflict, instability), integrates concepts and international experience with the questionnaire (Burr et al., 2019). Respondents are given the option to choose one of five answers. Answers to questions or statements on the scale are scored from 0 to 100 (0, 33.3, 66.7 and 100 points). The total value is the average of the answers given by the respondents (Llorens-Serrano et al., 2019).

In our study, to find out the most important psychosocial factors of the working environment for museum workers, respondents completed the short version of the COPSOQ which contains 32 statements. In this short version, respondents were asked to choose one of five response options, which are converted to a score of 100, 75, 50, 25 or 0 when the results are evaluated. Among the questions from the long version of the questionnaire, questions on self-rated health, sleep disturbances, burnout, stress, somatic stress, cognitive stress and depressive symptoms were included, as well as self-efficacy experienced by respondents in the last four weeks. Respondents in the short version of COPSQ III had to choose such possible answers: not applicable to me (0), slightly applicable to me (33.3), partially applicable to me (66.7) and fully applicable to me (100), except in the health self-assessment, where health should be rated on a Likert scale from 0 to 10.

The selection criteria in our study was full consent to participate, work in full-time, no psychosocial risk impact on health (mandatory health check-up results), comprehension of psychosocial hazards in the workplace.

3. The data collected were electronically entered into data tables using Microsoft Excel and IBM SPSS Statistic 21.0 software. Data processing was carried out using descriptive statistical methods, frequency analysis and cross-tabulation with chi-square test of independence and the *Cramér's V coefficient* to determine the statistical reliability of differences. *Cramér's V coefficient*, also referred to as Cramér's φ, is a correlation statistic designed to assess the strength of association between two categorical variables. (McHugh, 2018). This nonparametric measure is particularly useful in the analysis of cross-tabulated data. Essentially, Cramér's *V* functions as a correlation coefficient for nominal variables and necessitates the use of a Chi-squared test statistic for its calculation. Results were classified as statistically significant if the *p*-value was below 0.05.

The study was approved by the Ethics Committee of the University of Latvia on 18 March 2024, No 14.

RESULTS AND DISCUSSION

The survey was completed by 303 museum staff, 86.8% of whom were females, 12.9% males and 0.3% other gender (see Table 1).

Analysing the respondents by gender, age and length of service in the profession, it was found that the largest number of employees is in the age group 31–45 (39.9%) and 46–60 (33.3%). Among the respondents in the age group 31–45, 42.2% have 6–20 years of service in the museum. Of the employees, 22.1% have more than 21 years of service in the profession and they are mainly in the age group 46–61 and over. This is in line with the study that in Latvian museums 73–74% of all employees are females (Vikmane, 2023), while 64.3% of the respondents have been employed in a museum for more than five years. This indicates that staff turnover in the sector is relatively low.

Table 1. Characteristics of study participants (n = 303)

Variable	Features	Participants (n = 03)
Gender of employee	Female	263
	Male	39
	Another	1
Age group, years	Up to 30	38
	31–45	121
	46–60	100
	> 61	44
Length of service in the profession, years	Up to 1	28
	2 to 5	80
	6 to 20	128
	21 and over	67

Analysing the survey results by museum location, the following results were obtained: slightly more than half of the respondents (50.8%) are employed in museums in the capital city, and the other half - in other regions of Latvia. A statistically significant relationship ($\chi^2 = 24.5$; df = 9, $p = 0.002$) was found between age and museum location: in the capital city, mainly young employees (under 45 years of age) are employed, in municipalities - respondents aged between 46 and 60 years, while in the centre of the regions, employees aged over 61 years are statistically slightly more likely to be employed than expected. This is due to the fact that there are many more museums in the Latvian capital than in the regions, the number of museum staff in the regions and regional centres is much smaller than in the capital, and the museums employ mainly local people with a long professional career.

The number of museum staff and the respondents' job responsibilities are shown in Table 2. The job duties of 27.4% of the employees include preservation, digitalisation, restoration of the museum collections, 23.8% - public information (PR specialist, museum educator, exhibition curator) and 11.2% indicated that the duties are related to management, including project management, department management.

Table 2. The number of museum staff and the respondents' job responsibilities

Number of museum staff								
Job responsibilities	Up to 5	6–10	11–25	26–60	61–100	Over 100	Number (*n*)	%
Work with the museum collection, digitalisation, restoration	9	9	14	16	22	13	83	27.4
Work with the public	14	14	16	9	10	9	72	23.8
Management	8	12	7	19	15	8	69	22.8
Research	1	2	10	6	12	3	34	11.2
Technical work	4	4	3	2	2	1	16	5.3
All or nearly all of the above*	11	3	4	0	0	1	19	6.3
Accounting or bookkeeping*	0	1	0	3	0	0	4	1.3
Information technology, layout, digital content*	0	0	0	0	3	0	3	1.0
Safety, security *	0	0	0	0	0	2	2	0.7
Development plans, personnel*	0	0	1	0	0	0	1	0.3
Number (*n*)	47	45	55	55	64	37	303	100
Percentage breakdown	15.5	14.9	18.2	18.2	21.1	12.2	100	

*Summarising respondents' answers in ‘Other’.

Research work (historian, art expert) is carried out by 12.2% of respondents, and technical work (house manager, cleaner, hall supervisor) by 5.3% of respondents. The 'Other' section shows that 6.3% of respondents perform several or all of the above duties on a daily basis. This applies mainly to museums with up to five staff members. There is a marginally significant statistical correlation (*Cramer's* $V = 0.198$; $p = 0.002$) between the gender of the respondents and their job responsibilities in the museum. Comparing the results with the expected ones, it can be concluded that males do more research and technical work than statistically expected, while females do more public information and work with museum collections than statistically expected.

The majority of respondents (61.1%) sometimes work at weekends or on public holidays. Always or almost always 6.9% of respondents work at weekends and 17.2% of respondents often work at weekends or on public holidays. Similar results have been found in other studies (Michelbach, 2013). Studies show that long working hours and overtime are associated with stress, burnout and general health deterioration (Le et al., 2022).

The survey showed that respondents do not have sufficient knowledge of the potential risks of their occupation, with only 0.6% of respondents in the ‘other’ section indicating that they know all the potential risks. Meanwhile, 20.5% have some

knowledge of the risks of their occupation and 5.3% do not know the risks of their occupation. Respondents commented on the comfort of the working environment as follows: 59.4% of respondents indicated that the working environment is partially comfortable, 29.7% - fully comfortable; 56.4% indicated that it is possible to change between sitting and standing positions when performing work duties; 42.2% indicated that they perform work duties only sitting and 1.3% - only standing. A large proportion of respondents (46.2%) do not complain about the presence of noise in the work environment, but 37.6% believe that there is sometimes noise that interferes with work. Almost 80% of respondents note that it is possible to ventilate the premises during working hours.

More than half of the respondents (69.8%) indicate that they use an employer-provided health insurance policy that also includes rehabilitation (physiotherapy, psychological counselling and massages) to promote their health. Of respondents, 78.5% state that they do not smoke, while 12.5% smoke every day or almost every day and the rest smoke occasionally.

The leisure time survey of the employed showed that 35.3% of respondents used alcohol less than once a month, 21.5% never used alcohol and 2.6% used it every day or almost every day. It should be noted that respondents do not exercise much after work, with only 21.8% saying they exercise every day, 24.4% between 2 and 4 times a week, and 14.9% do not exercise at all.

The psychosocial risk assessment using the short version of the COPSOQ III is presented in Tables 3 to 5.

Table 3. Summary of the assessment of psychosocial risk factors by COPSOQ III (short version). Arithmetic mean (M) and standard deviation (SD) of respondents' answers

Domain	M ± SD	Item	M ±SD
Quantitative requirements	29.5 ± 23.2	How often do you run out of time to complete all your work tasks?	51.8 ± 24.8
		Do you delay in completing work tasks?	31.4 ± 23.4
Pace of work	49.7 ± 21.0	Do you need to work very fast?	56.4 ± 21.8
		Do you need to work at a high pace throughout the day?	44.1 ± 22.7
Emotional requirements	48.0 ± 26.5	Does your work involve dealing with other people's personal problems?	37.5 ± 26.4
		Is your work emotionally intense?	61.2 ± 26.2
Impact at work	59.3 ± 23.0	Do you influence decisions that concern your work tasks?	59.3 ± 23.0
Opportunities for growth	72.8 ± 22.1	Do you have the opportunity to learn new skills at work?	69.4 ± 23.3
		Do you have the opportunity to use your skills or knowledge in your work?	77.6 ± 19.8
Meaning of work	74.6 ± 19.8	Is your work important?	74.6 ± 19.8

When analysing the quantitative requirements, it should be noted that respondents rated them as medium and medium-low with a relatively medium standard deviation (29.5 ± 23.2). Respondents are relatively more likely to experience a lack of time. Despite this, employees very rarely delay the completion of work tasks. In the 'other' section, 6.3% of respondents indicated that they perform all or almost all duties in the

museum. These respondents were grouped together in the 'all or almost all duties' group. The lack of time to complete work tasks was higher for respondents performing all or almost all types of duties in the museum (59.2 ± 20.8) and lower for respondents performing technical work (37.5 ± 20.4) or other duties (30.0 ± 19.7) as indicated by the respondent.

Respondents rate the pace of work as average. As many as 38% of respondents said they often or always need to work fast, while 19.5% work at an increased pace throughout the day. Respondents who perform almost all types of duties in the museum (63.2 ± 24.1) and respondents who perform other duties (67.5 ± 23.7) are more likely to work fast. Sometimes it is necessary to work at an increased pace throughout the day (44.1 ± 22.7). Respondents in management (48.2 ± 21.2) and research (47.8 ± 23.3) reported a relatively high pace throughout the day, while those in technical work (34.4 ± 18.0) reported a slower pace.

The score for 'Emotional demands' is moderately low (37.5 ± 26.4). Frequently or always solving other people's problems is a concern for 16.5% of respondents, and this applies to respondents who perform management work (46.4 ± 23.2), and relatively less frequently for staff who work with the museum's collection (28.6 ± 25.9) and those who perform other duties (25.0 ± 23.6). Respondents consider that their work is often emotionally intense (61.2 ± 26.2). This is mainly the case for respondents who perform almost all duties (69.7 ± 24.4) and those who perform managerial duties (67.4 ± 21.2).

Respondents report that they can influence decisions affecting their work tasks moderately often (59.3 ± 23.0). Meanwhile, 16.2% report that they rarely or never influence decisions affecting their work tasks. Only 9.6% (n = 29) can always influence decisions affecting their work tasks. Respondents in management jobs are more likely to have influence on decisions concerning their work tasks (64.9 ± 28.8). Those in technical jobs are comparatively less likely to influence decisions on their work task (48.6 ± 32.2).

Respondents rate their opportunities for advancement as moderately high. Museum employees have a high potential to acquire new knowledge (69.4 ± 23.3) and to use knowledge at work (77.6 ± 23.3). Of respondents, 10% (n = 30) consider that there is a very low or low potential to acquire new knowledge and 3.7% consider that there is a very low or low potential to use skills at work. Respondents in management jobs (75.0 ± 22.7) and respondents in miscellaneous jobs (71.1 ± 25.4) are more likely to be able to acquire new knowledge (82.3 ± 17.7) and to use their skills (82.3 ± 17.7). Respondents in research jobs (67.7 ± 21.8) are relatively less likely to be able to use their knowledge and skills (71.1 ± 25.4).

Of museum employees, 76.1% consider their work to be highly important (74.6 ± 19.8), while only 3.3% consider their work to be very or somewhat important. Respondents with a variety of duties are more likely to consider their work important (82.9 ± 16.8), while respondents working in research are relatively less likely to do so (67.7 ± 21.8).

Transparency in the museum sector is moderately high. Respondents consider themselves to be moderately and moderately frequently informed about important decisions and changes at work (60.4 ± 24.1). Of respondents, 17.2% are informed to a low or very low degree about important decisions, changes or plans; 7% receive the necessary information to a low or very low degree. Respondents working in technical areas (53.1 ± 27.2) and those working with museum collections (55.4 ± 26.0) are comparatively less well informed. On average, respondents often receive the information

they need to complete their work tasks (64.5 ± 19.8). Respondents in management (67.0 ± 20.3) and other duties (67.5 ± 20.6) are relatively more likely to receive the information they need, while respondents performing all or almost all duties (57.9 ± 26.4) are less likely to receive it.

Table 4. Summary of the assessment of psychosocial risk factors by COPSOQ III (short version). Arithmetic mean (M) and standard deviation (SD) of respondents' answers

Domain	M ± SD	Item	M±SD
Transparency of work	62.4 ± 21.9	Are you informed in advance about important decisions, changes or future plans at work?	60.4 ± 24.1
		Do you get all the information you need to do your job well?	64.5 ± 19.8
Evaluation	54.8 ± 26.2	Does your management appreciate and recognise your work?	54.8 ± 26.2
Role clarity	70.6 ± 20.7	Do you have clear objectives for your work?	70.6 ± 20.7
Conflict of roles	37.5 ± 24.3	Do you face conflicting demands in your work?	32.7 ± 25.9
		Do you tend to have work tasks that need to be done differently than usual?	44.0 ± 24.6
Leadership quality	59.1 ± 27.1	To what extent would you say that your direct manager is a good planner?	59.4 ± 26.1
		To what extent would you say that your direct manager is able to resolve conflict situations?	57.3 ± 29.1
Support from the direct manager	71.9 ± 27.0	How often do you get help and support from your direct manager if you need it?	71.9 ± 27.0
Colleague support	78.9 ± 20.4	How often do you get help and support from your colleagues if you need it?	78.9 ± 20.4
Atmosphere at work	78.8 ± 29.1	Is there a good atmosphere between you and your colleagues?	78.8 ± 29.1

Most respondents consider that they are rather appreciated by management (54.8 ± 26.2), while 25.7% of respondents consider that management appreciates their work to a small or very small extent. Respondents who carry out research work are comparatively more likely to receive recognition for their work (61.7 ± 21.5), while respondents who perform all or almost all duties are less likely to receive recognition (48.7 ± 31.7). The responses of respondents performing all or almost all duties have a relatively high standard deviation.

Those working in the museum sector noted that there are clear objectives to a large extent (70.6 ± 20.7). Only 7% of respondents indicated that the job has clear objectives to a small or very small extent, while 18.8% of respondents indicated that the objectives are clear to a very large extent. The clarity of objectives is relatively higher for respondents doing management work (74.6 ± 20.8) and relatively lower for respondents doing work with the public (66.0 ± 21.0).

Many respondents rated role conflict in museum work as low (conflicting demands 32.7 ± 25.9; different tasks 44.0 ± 24.6). Whereas 15% of respondents considered conflicting demands to be high or very high, 43.6% of respondents noted that there are very few or few tasks that need to be done differently. Respondents who perform all or almost all duties in the museum are relatively more likely to have conflicting demands at work (44.7 ± 22.8), which could be related to the variety of work. Respondents with

other duties are relatively less likely to have conflicting demands (25.0 ± 20.4). Respondents tend to have different job tasks to perform, more often different job tasks for respondents who have all or almost all of the job tasks (52.6 ± 24.9), but relatively less for technical staff (34.4 ± 28.7). A *Chi-square test* was used to analyse the relationship between respondents' length of service and the manager's conflict resolution skills score, and a statistically significant relationship was found *(*$\chi^2 = 31.1$; df = 12, $p = 0.002$). The *Cramer's V coefficient* is 0.185; $p = 0.002$, which means that there is a marginally significant relationship between the respondents' length of service and conflict resolution. Respondents with up to one year of seniority rate their direct manager's ability to resolve conflict situations higher than statistically expected, while respondents with between 1 and 5 years and between 6 and 20 years of seniority rate their direct manager's ability to resolve conflict situations comparatively lower than statistically expected. Respondents are more likely to perceive their direct manager as being able to resolve conflict situations (57.3 ± 29.10). The ability of the direct manager to resolve conflicts was rated higher by those with other responsibilities (65.0 ± 35.7), but respondents' ratings varied. Respondents who perform all or almost all of the duties (50.0 ± 25.9) rated their direct manager's ability to resolve conflict situations the lowest.

Respondents generally consider that the direct manager plans the work well (59.4 ± 26.1). Meanwhile, 20.9% of respondents consider that the manager plans the work well to a small or very small extent and 25.7% of respondents consider that the manager is able to resolve conflict situations to a small or very small extent.

A statistically significant relationship ($p < 0.05$) was found when applying the *Chi-square test* ($\chi^2 = 21.3$; df = 12; $p = 0.047$) and analysing the correlations of the location of the museums with the manager's time management score. The *Cramer's V coefficient* is 0.153; $p = 0.047$, indicating that there is a marginally significant relationship between the location of the museum and the time planning by the manager. In the capital city, the immediate manager's planning is rated higher than statistically expected, while in the county town it is rated lower than statistically expected.

Technical workers reported that their direct manager planned their work relatively well (68.8 ± 28.2). However, respondents who perform all or almost all of the duties are relatively less satisfied with their direct manager's time management (52.6 ± 21.9).

Overall, respondents perceive that they often receive support from their direct manager (71.9 ± 27.0), but the assessment is not unanimous. Of the respondents, 11.3% ($n = 34$) indicated that they rarely or never receive support from their direct manager. Respondents who work with the public are more likely to receive support from their direct manager (75.7 ± 26.9), while respondents who perform all or almost all duties are statistically least likely (55.2 ± 28.4) to receive support. Those with all or almost all responsibilities have comparatively lower scores in both leadership quality and support from direct manager.

Respondents consider that they receive support from colleagues frequently (78.9 ± 20.4). Meanwhile, 2.7% ($n = 8$) of respondents indicate that they rarely or never receive support from colleagues. Respondents who perform all or almost all duties at the museum are more likely to receive help from colleagues (85.5 ± 17.3), while those who perform technical work (73.4 ± 21.36) and research work (73.5 ± 21.3) are comparatively less likely. This could be explained by the specific nature of the work, as the job duties of technical staff are very different from those of museum staff.

Respondents believe that there is a good psychological atmosphere in the organisation (78.8 ± 29.1). Only 2.7% of respondents indicated that there is rarely or never a good atmosphere among colleagues. Technical staff (52.8 ± 17.6) have the lowest opinion of the atmosphere at work, while respondents working with the museum collection have the highest (75.6 ± 20.3) opinion.

Table 5. Summary of the assessment of psychosocial risk factors by COPSOQ III (short version). Arithmetic mean (M) and standard deviation (SD) of respondents' answers

Domain	M ± SD	Item	M±SD
Job insecurity	41.1 ± 31.5	Are you worried about being out of work?	40.1 ± 30.7
		Are you worried about the difficulties you might have in finding another job if you become unemployed?	51.2 ± 32.2
		Are you worried about being transferred to another job against your will?	31.7 ± 31.4
Job satisfaction	70.2 ± 19.5	How satisfied are you with your work overall, all factors considered?	70.2 ± 19.5
Work-life balance	41.8 ± 29.0	Do you feel that your work consumes too much energy and that it has a negative impact on your private life?	44.3 ± 29.3
		Do you feel that your work takes up too much of your time and that it has a negative impact on your private life?	39.0 ± 28.7
Vertical reliability	71.7 ± 21.1	Does management trust staff to do their job well?	74.2 ±20.0
		Can staff trust the information they receive from management?	70.4 ± 20.0
Fairness	58.3 ± 25.5	Are conflicts handled fairly?	58.3 ± 26.3
		Are workloads distributed fairly?	56.8 ± 21.2
Health	41.0 ±19.1	How do you rate your state of health?	41.0 ±19.1

The job insecurity was in total evaluated as moderate (41.5 ± 31.8). The uncertainty of being unemployed is moderately low (40.1 ± 30.7). However, 15.7% of respondents indicate that they are very or extremely worried about the possibility of being unemployed. Being unemployed is relatively more worrying for respondents who perform all or almost all duties (35.5 ± 34.6). The possible difficulty of finding another job is moderate for respondents (51.2 ± 32.2). Of the respondents, 39.2% indicated that they would have a great or very great difficulty in finding another job. Respondents who work with museum collections are relatively more worried about finding another job (55.1 ± 30.0). Respondents more often worry slightly about being transferred to another job against their will (31.7 ± 31.4). Relatively higher levels of concern about reassignment are found among respondents with technical jobs (39.1 ± 30.2) and lowest among respondents with all or almost all duties (21.1 ± 30.4).

Overall, respondents are satisfied with their job (70.2 ± 19.5). Only 5% of respondents are very dissatisfied or dissatisfied with their job in general. Statistically, respondents performing all or almost all duties are more satisfied with their job (75.0 ± 14.4), while respondents performing work with the public are least satisfied (64.6 ± 21.3).

Respondents have a moderately low work-life balance: 27.4% say that work consumes too much energy to a great or very great extent, 24.4% say that work consumes too much time to a great or very great extent. Most of those performing all or almost all duties consider that work consumes too much energy (55.3 ± 30.7) and too much time (46.1 ± 29.1). Those in technical jobs are relatively more likely to consider that work consumes too much energy (39.1 ± 27.3), while those in management jobs are relatively less likely to consider that work consumes too much time (34.1 ± 27.4).

In terms of vertical trust, respondents rated management trust in employees and employees' trust in information from management relatively highly (74.2 ± 20.0). Only 4.6% of respondents indicated that management relies on employees to a small or very small extent, while 8.6% indicated that they can trust management information to a small or very small extent. Vertical trust is the lowest for respondents who perform all or almost all of their job duties (70.0 ± 15.8 and 65.8 ± 32.5). Technical workers score relatively lower on trust in the information they receive from management (65.6 ± 18).

Respondents indicated that fairness at work is moderately high (58.3 ± 26.3; 56.8 ± 21.2). Meanwhile, 18.2% indicated that conflicts are handled fairly to a small or very small extent and 19.2% (n = 58) indicated that workloads are distributed fairly to a small or very small extent. Managers (63.8 ± 21.7) have a higher perception that conflicts are dealt with fairly, while respondents working with the museum collection (54.5 ± 26.8) have a comparatively lower perception. Those doing research work are relatively more likely to feel that workloads are distributed fairly (59.6 ± 20.4), while those doing all or almost all work have a relatively low score (52.6 ± 32.2).

The majority of respondents consider their health to be satisfactory (41.0 ± 19.1). However, 3.6% of respondents consider it to be poor, and 12.8% consider it to be very good or excellent. Respondents who do research work rate their health status the lowest (33.8 ± 16.2).

The results of the short version are in line with other studies that find that work meaning is important for museum staff (Hardin, 2020) and that communication with colleagues and valuable conversations with museum visitors are important support mechanisms for psychosocial risks (Svgdik, 2019; Hardin, 2020).

Overall, respondents to the short version of the Copenhagen Psychosocial Survey score on average highest on the following indicators: support from colleagues (78.9 ± 20.4), atmosphere at work (78.8 ± 29.1), ability to use knowledge and skills (77.6 ± 19.8), importance of work (74.6 ± 19.8). Comparatively lower scores were recorded for: delays in completing tasks (31.4 ± 23.4), insecurity of being transferred against one's will (31.7 ± 31.4) and conflicting demands in the work process (32.7 ± 25.9). In all the short questionnaire results, there was a wide range of responses (with both a minimum and a maximum value selected for each question), indicating that respondents had different opinions. The psychosocial risks identified in the survey were: fast pace of work (56.4 ± 21.8) and lack of time to meet all demands (51.8 ± 24.8), fair conflict resolution (58.3 ± 26.3) and manager's ability to resolve conflict (57.3 ± 29.1), fair distribution of workload (54.8 ± 21.2), sufficient recognition at work (54.8 ± 26.2), possible difficulties in finding another job (51.2 ± 32.2) and self-assessment of health (41.0 ± 19.1). These results are also in line with other studies finding that meaning at work is important for museum workers (Hardin, 2020) and that communication with colleagues and fruitful conversations with museum visitors are important support mechanisms for psychosocial risks (Svgdik, 2019; Hardin, 2020).

The questions and scores of the long version of the Copenhagen Psychosocial Survey are presented in Table 6. Respondents report that they have mainly experienced sleep-related health problems. Relatively more respondents had poor or restless sleep (44.4 ± 25.9). The most frequent sign of burnout cited by respondents was being physically tired (53.6 ± 24.6). This is in line with studies by other authors, which have shown that working more than 60 hours per week resulted in poorer health, more stress-related disorders and burnout. No differences were found between age or gender (Le et al., 2022).

Table 6. Summary of the assessment of psychosocial risk factors by COPSOQ III (short version). Arithmetic mean (M) and standard deviation (SD) scores for sleep problems, burnout, stress and depression symptoms

Topic	Question	M ± SD
Sleep problems	How often have you slept badly or restlessly?	44.4 ± 25.9
	How often have you found it difficult to fall asleep?	35.1 ± 28.7
	How often have you got up too early and been unable to fall back asleep?	34.3 ± 27.0
Burnout	How often have you felt tired?	59.2 ± 24.4
	How often have you felt physically tired?	53.6 ± 24.6
	How often have you felt emotionally exhausted?	52.2 ± 27.8
Stress	How often have you had problems relaxing?	47.4 ± 27.2
	How often have you been irritable?	38.5 ± 23.6
	How often have you been tense?	50.2 ± 25.4
Somatic stress	How often have you had headaches?	26.4 ± 23.7
	How often have you had palpitations?	18.7 ± 23.3
	How often have you had muscle tension?	39.6 ± 29.8
Cognitive stress	How often have you had difficulty concentrating?	38.0 ± 26.7
	How often have you had difficulty thinking clearly?	28.8 ± 24.5
	How often have you had difficulty making a decision?	28.3 ± 22.6
	How often have you had difficulty remembering?	31.4 ± 23.0
Symptoms of depression	How often have you felt sad?	38.0 ± 26.7
	How often have you lacked self-confidence?	37.5 ± 26.0
	How often have you felt remorse or guilt?	33.4 ± 26.3
	How often have you lacked interest in everyday things?	32.4 ± 27.9

Among the questions on stress, respondents scored highest on the question about being frequently stressed at work (50.5 ± 23.7). Respondents indicated that somatic stress manifested itself in the following ways: heart palpitations were absent or present only part of the time (18.7 ± 23.3); muscle tension was slightly more common some or part of the time (39.6 ± 29.8). Cognitive stress symptoms, such as difficulty concentrating, were rated by respondents as occurring some or part of the time (38.0 ± 26.7). Depressive symptoms were similar, with sadness being the most frequent symptom within four weeks (38.0 ± 26.7). For all indicators, respondents selected both minimum and maximum values, which means that respondents' ratings varied. The analysis of the results shows that respondents of all genders aged under 30 and between 31 and 45 show relatively higher scores for burnout, stress and depression than statistically expected. This could be compared with research finding that people in Europe have poorer mental health (Backhaus et al., 2023), which could be linked to this generation's more active use of different means of communication. Studies have shown that if employees use

work-related communication tools outside of work hours, they are more likely to experience anxiety symptoms (Kim et al., 2024). Younger generations have also been shown to have higher rates of anxiety, linking this to the availability of the internet and smart devices (Tzeses, 2022).

When analysing the relationship between employee age and burnout scores, statistically significant correlations were found with all questions on the burnout score ($p < 0.001$). There was a slight statistical association for feeling emotionally exhausted ($p = 0.001$). There was a statistical association between age of respondents and stress scores. When analysing the age of museum staff in relation to muscle tension, a statistically significant correlation was found ($p = 0.03$), *Cramer's V coefficient* 0.16, which means that the correlation is not significant. When analysing the association of age with muscle tension, a statistically significant difference ($p < 0.0001$) and a *Cramer's V coefficient* of 0.210 was found, indicating a non-significant association between the groups compared.

The age of respondents was also statistically correlated with questions about depression. A *Chi-square test* was used to analyse the age of museum staff in relation to sadness and a statistically significant relationship was found ($\chi^2 = 32.5$; df = 12; $p = 0.001$), with *Cramer's V coefficient* of 0.19, indicating a marginally significant relationship between the groups compared. Using Chi-square test and analysing the age of museum staff in relation to lack of self-confidence, a statistically significant relationship ($\chi^2 = 43.8$; df = 12, $p < 0.001$) was found, *Cramer's V coefficient* is 0.220, which means that there is a marginally significant relationship between age and lack of self-confidence. The analysis of the association of age with lack of interest in everyday life showed a statistically significant correlation ($p < 0.0001$) and a *Cramer's V coefficient* of 0.24, indicating a marginally significant association between the groups compared. When the data are compared, employees aged under 30 and between 31 and 45 have relatively higher than expected scores on these measures of burnout, stress and depression.

To identify respondents' self-efficacy capacities that could help them cope with psychosocial risks at work, a long version of the self-efficacy questions was included in the questionnaire. Overall, respondents score moderately high on self-efficacy, with the highest scores on the ability to always solve difficult problems (81.3 ± 21.5) and the ability to usually cope no matter what occurs (80.0 ± 21.5) (see Table 7).

Table 7. Summary of the assessment of psychosocial risk factors by COPSOQ III (long version questions of self-efficacy domain). Arithmetic mean (M) of ratings and standard deviation (SD)

Item	M ± SD
I can always solve difficult problems if I try hard enough	81.3 ± 21.5
If people work against me, I find a way to achieve what I want	59.6 ± 27.7
It is easy for me to stick to my plans and achieve my goals	72.9 ± 21.8
I feel confident that I can cope with unexpected events	71.3 ± 25.2
If I have a problem, I can usually find several ways to solve it	75.8 ± 22.5
Whatever happens, I usually manage	80.0 ± 21.5

Overall, the self-efficacy of museum professionals is rated as medium-high and high. Respondents also have high resilience and adaptability. However, respondents' answers were varied, including both the lowest and the highest values. On average, those

performing management work show slightly higher self-efficacy than those performing other duties in museums. This is consistent with research conducted in the UK on the self-efficacy of museum staff and the finding that museum staff have higher self-efficacy than the public average and that the highest self-efficacy in museums is for freelancers and management workers (Naylor et al., 2016).

Given that the Copenhagen Psychosocial Survey has not been validated in Latvia, the authors cannot compare the results with those of the local population, but time pressure, workplace conflicts and workload appear as one of the most important psychosocial factors in several studies in Latvia (Pastare et al., 2020; Kalkis et al., 2024). Other authors' studies on psychosocial risks of museum workers also mention lack of time and organisational effectiveness (Michelbach, 2013), as well as inequality among colleagues (Hardin, 2020). Comparing the results of Romanian researchers (Iordache et al., 2022) with those of our study, there are significant differences in several indicators. Comparatively similar scores were found for the theme 'Impact at work' (Romania 57.0, Latvia 59.3), with Romanian museum workers more likely to indicate quantitative demands and work pace (Romania 68.2, Latvia 46.6) and emotional demands (Romania 60.8, Latvia 49.4). Latvian museum staff rated leadership higher than Romanian museum staff (Romania 45, Latvia 58.4), and indicated higher job insecurity (Romania 28, Latvia 41). In contrast, Latvian museum employees have significantly higher levels of opportunities for promotion (Romania 43.4, Latvia 73.5), support from direct manager and colleagues (Romania 39.2, Latvia 75.4) and role clarity (Romania 25.2, Latvia 70.6).

In summary, all or almost all job holders score relatively higher on quantitative demands, work pace, emotional saturation, impact at work, opportunities for growth, meaning of work, role conflict, colleague support, work atmosphere, job satisfaction and work-life conflict. This group scores comparatively lower on job predictability, appraisal, role clarity, leadership quality, support from line manager, job insecurity, vertical reliability, fair distribution of workload, and health. Respondents rated self-efficacy as high.

CONCLUSIONS

The Copenhagen Psychosocial Survey risk analysis concluded that museum staff work at a fast pace and lack the time to meet all requirements. Fair handling of conflict situations, ability of the supervisor to handle conflict situations, fair distribution of workload, sufficient recognition at work, possible difficulties in finding another job and self-assessment of health are the psychosocial risks specific to museum workers according to this assessment, which is in line with the literature analysis. The Copenhagen Psychosocial Survey scores are comparatively higher for employees who perform all or almost all of the museum's duties (management work, work with the museum's collection, research work, work with the public, technical work), which means that this group of employees should receive greater attention when developing preventive measures. In the Copenhagen survey, those working in the museum sector rated support from colleagues, the atmosphere at work, the opportunity to use knowledge and skills, and the importance of the work relatively highly, and employees generally had high self-efficacy scores and moderately high social capital.

Future research will focus on using cognitive tests in order to have holistic view on the psychosocial risks faced by museum workers. Addressing current study limitations with larger, more diverse samples and objective data measures will offer a more thorough understanding. Additionally, longitudinal studies could track the long-term effects of these risks on the well-being of museum staff and compare the impact across different types of museum settings.

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