

## **Psychosocial risks for health care workers in rehabilitation centre**

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Received: January 26<sup>th</sup>, 2024; Accepted: April 28<sup>th</sup>, 2024; Published: July 11<sup>th</sup>, 2024

**Abstract.** Psychosocial risks at work have a strong impact on workers in every economic field, especially in health care. The aim of this study was to analyze psychosocial risk impact on workers in 3 areas of work, including doctors or functional specialists, nurses and support staff at work for healthcare employees in one of Rehabilitation centers in Latvia. The Copenhagen Psychosocial Questionnaire was used to assess psychosocial risks at work. Main results show that the high scores for work atmosphere and social support from colleagues reflect the favourable social environment in the context of employee relationships, but doctors and functional specialists face significant psychosocial risks characterized by high quantitative and emotional demands, compounded by job insecurity and inadequate managerial support. Nurses contend with high physical and emotional risks influenced by unpredictable work patterns, unclear roles, and insufficient social support, while support staff confront high workload, role conflicts, and pervasive job insecurity, minimal recognition and unsupportive workplace atmospheres. In general critical aspects include work-life balance, appreciation and self-rated health are at work. Continuation of the research will be related to investigating the psychosocial risks with cognitive tests for each research group.

**Key words:** healthcare, employees, rehabilitation, center, psychosocial risks.

### **INTRODUCTION**

Globally, over the last few decades, there has been a significant shift in the nature of employment from manual labour to knowledge work and cognitive requirements of work is becoming more important topic (Kalakoski, 2019). When cognitive demands increase and are not balanced with employees' abilities, employees' health suffers (Karasek, 1979; Johnson & Hall, 1988; Bakker & Demerouti, 2007). Today, psychosocial risks (PSR) at work are an integral part of everyday life in various professions. Many scientists in recent years have focused on the study of this problem on the employed (Leka, et al., 2015; Bliese, et al., 2017; Di Tecco, 2023). According to Eurostat data, in 2020, 58.5% of those employed in the health and social care sector reported the impact of psychosocial risks on their mental health (Eurostat, 2021). Similar results were obtained in the Third European Enterprise Survey on new and emerging risks (ESENER, 2019), where it was found that the impact of psychosocial risks on health and social care workers is much more frequent than on those employed in other

sectors. In a study comparing sectors in relation to the impact of psychosocial risks on employees it was concluded that high demands and insufficient resources are the highest in the health and social care sector (De Hert, 2020). Some authors when describing psychosocial risk factors at work, associate them with job demands (tasks attributable to effort) and work resources to achieve a goal (Schaufeli et al., 2009). The work strain in various work environments in most cases are related to psychosocial risk factors rather than with physical risk factors (Roja et al., 2017). Health care workers are exposed to various PSR at work: overtime work, overload at work, time limitation, insufficient length of rest breaks, unbalanced work-home life, shift work, violence and harassment at work, etc. (Scozzafave et al., 2019; Ruotsalainen et al. 2020). If an individual is unable to adapt to psychosocial risks and their effects persist, he or she may experience cognitive and emotional impairments, which are closely linked to the individual's mental health. Exposure to psychosocial risks can adversely affect an individual's attention (orientation and concentration), memory and thinking (reflection, reasoning, language, etc.), decision-making, etc. Modern technologies and complex work tasks require high concentration abilities from employees, which are mainly related to decision-making in limited time and necessary procedures (De Jonge & Dormann, 2003). Health care workers are often exposed to worries about making the wrong decision regarding a patient's health, which can end up in court (Stehman et al., 2019).

There is a complex interplay between the effects of psychosocial risks, their mitigating or aggravating factors and the resulting consequences (Okuhara et al., 2021). Among the most important mental health disorders of the last decade is occupational burnout, a syndrome provoked by prolonged exposure to stressors that causes emotional disturbances and has a significant impact on individuals' work performance (De Hert, 2022). Occupational burnout is not only a problem for the employees themselves, but also causes serious problems in the quality of patient care, increased likelihood of medical errors at work, etc. (West et al., 2006; Shanafelt et al., 2010).

Research into the causes of psychosocial risks and their interactions with other workplace risks is important for promoting the health of healthcare workers. Research has shown that a bio-psychosocial approach, which includes an analysis of psychosocial and human factors risks, is essential to assess the causes of work related musculo-skeletal disorders (WRMSDs) (Deeney & O'Sullivan, 2009; Roja et al., 2013). Psychosocial factors can also be a contributing factor to workplace safety incidents and accidents. Adverse social conditions at work, e.g. ineffective management approach, conflicts, etc., can provoke dangerous behaviours that can lead to an accident at work (Hassanzadeh-Rangi, et al., 2014). The study on the impact of working time risks on accident incidence found a correlation between excessive working hours and overtime work with accident incidence (Dembe et al., 2005; Hsu et al., 2019).

Health care is one of the leading sectors of the national economy in Latvia, where employees according to the official statistics make up 6.7% of all employees in the country. In 2022, the Latvian health and social care sector employed 59.8 thousand people. Of these, 51.2 thousand or 85.6% were women (Central Statistical Bureau of Latvia, 2023). According to the study, employees working in healthcare in Latvia experienced the following psychosocial risks: workplace bullying 9.5%, physical violence 6.4% and sexual harassment 2.9%. These rates are higher than the national average for all sectors, at 5.3%, 3.0% and 1.4% respectively. (Research 'Work conditions and risks in Latvia 2019–2021', 2023).

The aim of this study was to analyze psychosocial risk impact on workers in 3 areas of work, including doctors or functional specialists, nurses and support staff at work for healthcare employees in one of Rehabilitation centers in Latvia. The study involved 39 respondents. The representatives of the following professions took part in the survey: doctors or functional specialists – 24; nurses – 9; support staff – 6.

## METHODS

The Copenhagen Psychosocial Questionnaire (Kristensen et al., 2005) from the Danish National Research Centre for the Working Environment was used to assess psychosocial risks at work. COPSQ is an instrument for research, for the assessment of psychosocial conditions and health promotion at workplaces. It was developed by a group of researchers lead by Tage S Kristensen and Vilhelm Borg at the Danish National Research Centre for the Working Environment (1995–2007). The COPSQ III short version questionnaire allows the identification and assessment of major psychosocial risks and is suitable for organisations of all sectors and sizes. The results are comparable between organisations (benchmarking) and the repeated assessment of these risks allows the effectiveness of preventive measures to be evaluated. The survey is organised anonymously. The COPSQ III methodological instructions also provide guidelines for formulating response options using Likert scale. The scale is scored from 0 to 100, with the total value calculated as the average of the answers provided by the selected respondents (Llorens et al., 2019). Each question presents five potential responses. These responses are assigned to weights of 0, 25, 50, 75, and 100 respectively. The value of the scale is determined calculating average, resulting in a scale range from 0 to 100. If a respondent provides answers to less than half of the questions on the scale, their response is deemed missing. However, if answers are provided at least half of the questions, the scale value is computed as the average of their responses.

The short version of the COPSQ III includes the following aspects of the psychosocial environment and risk groups: quantitative load, work pace, emotional load, impact on work process, job predictability, job perspective, job importance, appreciation, role clarity, role conflict, effectiveness of management approach, social support from supervisor, social support from colleagues, work atmosphere, job insecurity, insecurity about job conditions, job satisfaction, work-life balance, trust in management, and fairness. In addition to the questions in the short version of the COPSQ III, the questionnaire includes contextual and selection criteria questions. The contextual questions were sex of the employee, age of the employee, occupational group of the employee, length of service.

The respondents were doctors and functional specialists, nurses (general nursing), medical support staff. Participants were informed about the confidentiality of the survey results, the processing of the data and that the data will only be used in aggregate form. The survey took place from 5 February to 15 November 2023, after pandemic COVID 19. Selection criteria were as follows: full consent to participate, full-time or part-time work, no mental health problems detected in the mandatory health check-up, recognition of psychosocial risks at work and ability to assess their impact.

Permission for the research was received from the Ethics committee of the University of Latvia on February 23, 2023, protocol No. 4.

The research study utilized Microsoft Excel 365 and SPSS 20 for data analysis. Data was collected and organized the with softwares and after also used for descriptive statistical processing. The combination of Excel for data collection and processing, and SPSS for data analysis, ensured the reliability and validity of the research findings.

## RESULTS AND DISCUSSION

### Questionnaire Results

The questionnaire was sent to 52 respondents. The study analysed 39 questionnaires or 75.0% of respondents (recognized as valid for the research), 13 questionnaires or 25.0% of respondents did not meet one or more of the defined selection criteria for study participants, the most frequent of which was that the employee did not recognise a deterioration in health related to psychosocial risk factors (8 cases). Table 1 summarises the profile data of the study participants.

**Table 1.** Profile of study participants

Variable	Features	People	Proportion, %
Gender of employee	Female	33	84.6
	Male	6	15.4
	TOTAL	39	100.0
Age group	Up to 24 years	1	2.6
	25 to 34 years	15	38.5
	35 to 44 years	6	15.4
	45 to 54 years	8	20.5
	55 to 64 years	8	20.5
	65 and over	1	2.6
	TOTAL	39	100.0
Occupational group	Doctors and functional specialists	24	61.5
	Nurse	9	23.1
	Support staff	6	15.4
	TOTAL	39	100.0
Length of service in the profession	Up to 2 years	2	5.1
	3 to 10 years	22	56.4
	11 to 20 years	10	25.6
	21 and over	5	12.8
	TOTAL	39	100.0

The study was carried out among 33 women, of whom 36.4% were aged 25–34, 12.1% were aged 35–44, 24.2% were aged 45–54 and 55–64, and on 3.0% was aged 65+. The average age of the female participants is 43.3 years. Eighteen (54.5%) of the participants are employed as doctors or functional specialists, 9 (27.3%) are nurses and 6 (18.2%) are in the support staff occupational group. 6.1% have been in the profession for 2 years, 54.5% for 3 to 10 years, 24.2% for 11 to 20 years and 15.2% for more than 21 years. Of the 6 men in the study, 16.7% was aged 24 years or younger, 50.0% were aged 25–34 years and 33.3% were aged 35–44 years. The average age of the male participants is 30.8 years. All men are employed as a doctor or functional specialist. 66.7% have been working in the profession for 3 to 10 years and 33.3% for 11 to 20 years. The average age of the participants (women and men) is 41.4 years. To summarise, the

average participant in the study is a woman aged between 25 and 34 years, who has been working in a doctor or functional specialist profession for between 3 and 10 years. According to the participant selection criteria, she is working full-time, has experienced a deterioration in health related to psychosocial risk factors and has not been diagnosed with a mental health-related illness.

According to Central Statistical Bureau (CSB) data, in 2022, 85.6% of employees in the health and social care sector in Latvia were women, which is in line with the data obtained in the study when comparing employees by gender. Similar results have been obtained in other countries, e.g. a study on professional burnout of doctors and its causes in Lithuania indicated that the population consisted of 65.7% women (Žutautienė et al., 2020), and in a study on psychosocial work environment factors in healthcare workers in Switzerland, 81% of 12754 respondents were women (Peter et al., 2022).

The majority of participants in the study are in the 25–34 age group (38.5%) and the 45–64 age group (41%), which is partly in line with the results of other studies around the world (Majority of health jobs, 2021).

Overall, authors conclude that the study predominantly involved female health care workers, reflecting main sector's gender distribution. All participants, primarily doctors and functional specialists, reported health deterioration due to psychosocial risk factors, despite no prior mental health-related diagnoses. It should be noted that the age distribution of employees is often influenced by the specific nature and scope of the organisation. The same could be said of the distribution of employees by occupational group, which depends very much on the specifics of the chosen organisation and/or the objectives of the study.

### **Results of the Copenhagen Psychosocial Survey**

Transforming the respondents' answers according to the COPSOQ III survey methodology, the mean scores of the psychosocial environment aspects and assessment of risk groups included in the short version of the survey were calculated on a Likert scale, indicating the frequency of each aspect or the degree of agreement with the statement.

Aspects of the psychosocial environment and risk groups in each of the occupational groups represented by the respondents are shown in Tables 2 to Table 5.

To quantify workload, respondents had to answer the following questions: 'how often do you run out of time to complete all your work tasks?' and 'do you delay completing work tasks?' Table 2 shows that the responses have a relatively high standard deviation across all occupational groups, with a mean of 50 or more. Doctors and functional specialists are more likely to report a lack of time and/or delays in completing work tasks, and those in support professions are also close to this rating ( $56.77 \pm 27.16$  and  $56.25 \pm 37.12$ ). The mean value of the quantitative workload assessment for nurses is slightly lower than for both of these occupational groups and is in line with the 'sometimes' in numerical value. This suggests that the workload for functional specialists/doctors and nurses is evenly distributed, and it should not affect the quality of patient care. Studies on psychosocial risks in healthcare showed a similar trend, with doctors ( $71.9 \pm 13.9$ ) scoring higher than nurses ( $66.5 \pm 13.5$ ) on quantitative workload (Kersten et al., 2014; Wagner et al., 2019). But our research results are not in line with studies by other authors, e.g. for nurses, a study on the relationship between quantitative workload (as understood by the COPSOQ III) and professional burnout found a

correlation between the two, i.e. an increase in quantitative workload leads to an increase in the incidence of professional burnout (Diehl et al., 2021). Despite the high quantitative workload scores of the employees in our study, this is not critical, but it is noteworthy. Often it can cause not only burnout at work, but also an imbalance between work and private life (Fuß et al., 2008).

To assess the pace of work, respondents answered the following questions: ‘do you need to work very quickly?’ and ‘do you need to work at a high pace throughout the day?’ Table 2 shows that for all occupational groups, the mean values exceed the quantitative workload estimates. The need to work quickly and/or at a high pace throughout the day is more common in support staff ( $77.08 \pm 32.78$ ) than in the other occupational groups, with lower scores for doctors and functional specialists ( $65.63 \pm 17.58$ ) and even lower scores for nurses ( $55.56 \pm 16.17$ ). This could be explained by the fact that there is a shortage of support staff in healthcare and often one person must do the work of 2–3 staff members. Investigation characterized by Royal College of Physicians (2015) has found similar results where investigation shows that staff are often exposed to fast-paced work that have a negative impact on work duties.

**Table 2.** Aspects of the psychosocial environment and risk groups: quantitative load, work pace, emotional load

Aspects of the psychosocial environment	Profession group	Min	Max	Mean	SD
Quantitative load	Doctor or functional specialist	0	100	56.77	27.16
	Nurse	0	100	50.00	32.08
	Support staff	0	100	56.25	37.12
Work pace	Doctor or functional specialist	25	100	65.63	17.58
	Nurse	25	75	55.56	16.17
	Support staff	25	100	77.08	32.78
Emotional load	Doctor or functional specialist	0	100	68.23	24.59
	Nurse	25	100	63.89	21.39
	Support staff	0	100	64.58	31.00

Min – minimal value; Max – maximal value; Mean – mean value; SD – standard deviation.

To assess emotional strain, respondents answered the following questions: ‘do you have to deal with other people's personal problems at work?’ and ‘is your work emotionally demanding?’ Table 2 shows that doctors, functional specialists and nurses are more likely to have aspects of the psychosocial environment related to emotional strain ( $68.23 \pm 24.59$  and  $63.89 \pm 21.39$ , respectively). In the support staff group, however, emotional strain scores are lower than work pace scores. The results are in line with the findings of other authors. For nurses and doctors, for example, in Germany, a similar tendency is observed for high emotional strain scores with scores of  $64.4 \pm 18.3$  and  $64.6 \pm 16.5$ , respectively (Wagner et al., 2019). This proves that doctors or functional specialists and nurses often have to deal with personal problems of patients or patients' relatives, thus putting themselves under greater emotional strain. This is supported by other studies that those in charge who are in direct contact with people and who have a high level of responsibility for the work are also exposed to psychoemotional overload at the work (Pastare et al., 2020).

The analysis of the impact on work processes shows that doctors and functional specialists have the highest impact on work processes ( $63.54 \pm 19.48$ ); support staff have a slightly lower impact on decisions affecting work tasks; and nurses have the lowest impact ( $41.67 \pm 12.50$ ) on work processes among the occupational groups considered. This leads to the conclusion that there is a lack of attention to organisational culture, which in the long term can lead not only to stress-related health problems for support staff and nurses, but also to work ethics. This is in line with the literature that people who work in a friendly and team-focused environment feel less stressed. Workers in a creative and forward-thinking setting also experience lower stress levels. On the other hand, people in a strict and structured workplace tend to have higher stress. Employees from companies with a competitive, rational and logical approach also report higher stress levels (Marchand, 2013; Olynick & Li, 2020).

To assess the predictability of work, respondents were asked the following questions: 'at work, are you informed in good time about important decisions, changes, or future plans?' and 'do you receive all the information you need to do your job well?' The results show a relatively high level of job anticipation across all occupational groups studied. This indicates that there is a good flow of information in the organisation which also indicates a high working culture in the organisation. Nurses have particularly high job predictability, with a relatively low standard deviation of responses ( $70.83 \pm 12.86$ ). The lowest job predictability scores are for doctors and functional specialists ( $63.94 \pm 17.03$ ). The results are consistent with research on organisational change in hospitals (Ellis et al., 2023), which has shown that positive organisational culture and communication are essential for staff to be ready for change, increasing opportunities for organisational change and reducing staff burnout and disruption to patient care.

Comparing our results with studies on the impact of doctors and nurses on the work process ( $38.8 \pm 20.8$  and  $36.3 \pm 17.3$ , respectively) and on job predictability ( $52.5 \pm 19.3$  and  $53.3 \pm 16.4$ , respectively), it can be concluded that these criteria were more critically evaluated (Wagner et al., 2019). It should certainly be borne in mind here that the nature of the respondents' work plays an important role in the context of a number of factors. For example, whether the nurse works in a primary health care establishment or in a rehabilitation establishment, between which there are differences both in the patient profile and in the predominant tasks to be carried out.

To assess their job prospects, respondents were asked the following questions: 'do you have the opportunity to learn new skills at work?' and 'do you have the opportunity to use your skills or knowledge at work?' Table 3 shows that the highest scores for job prospects, i.e. the most opportunities to learn new skills and use their skills at work, with a relatively low standard deviation of responses, are found among doctors and functional specialists ( $80.21 \pm 17.83$ ), which is consistent with studies by other authors (Hillen et al., 2015). In our study the job prospects score is lower for support staff and even lower, with a relatively low standard deviation, for nurses ( $66.67 \pm 34.27$  and  $59.79 \pm 15.19$ , respectively). There is a significant difference between the job prospects of doctors and functional specialists and those of other occupational groups. It suggests that there are limited opportunities among mid- and lower-level medical staff to learn new and/or make full use of existing knowledge and skills at work, possibly due to a relatively higher level of routine in the job content, which is most likely determined by the specificities of the chosen organisation, which contradicts other authors' studies that, in the context of continuing education, it is very important for nurses, for example,

to be educated about the complexity of existing diseases and their specific features, and about the economic and psychosocial consequences of diseases in later life (Robertson et al., 1999). Many studies have shown that educating employees in the workplace improves mental health, sense of belonging, organisation and reduces psychological distress (Katona, 2022).

**Table 3.** Aspects of the psychosocial environment and risk groups: impact on the work process, work predictability, job prospects, importance of work, appreciation

Aspects of the psychosocial environment	Profession group	Min	Max	Mean	SD
Impact on the work process	Doctor or functional specialist	25	100	63.54	19.48
	Nurse	25	50	41.67	12.50
	Support staff	25	100	62.50	26.22
Work predictability	Doctor or functional specialist	25	100	60.94	17.03
	Nurse	50	100	70.83	12.86
	Support staff	25	100	64.58	27.09
Job prospects	Doctor or functional specialist	25	100	80.21	17.83
	Nurse	25	75	59.72	15.19
	Support staff	0	100	66.67	34.27
Importance of work	Doctor or functional specialist	50	100	85.42	14.59
	Nurse	50	100	88.89	18.16
	Support staff	75	100	87.50	13.69
Appreciation	Doctor or functional specialist	0	100	44.79	27.56
	Nurse	0	75	58.33	25.00
	Support staff	0	75	41.67	34.16

Min – minimal value; Max – maximal value; Mean – mean value; SD – standard deviation.

To assess the importance of the work, respondents had to answer the following question: ‘is your work important?’ Table 3 shows particularly high scores for job importance in all occupational groups, and in all cases with a relatively low standard deviation of responses. Nurses gave the highest job importance ratings ( $88.89 \pm 18.16$ ), while support staff gave slightly lower ratings ( $87.50 \pm 13.69$ ). The lowest job importance scores were found among doctors and functional specialists ( $85.42 \pm 14.59$ ). All the professions studied, despite being exposed to various psychosocial risks at work, high levels of responsibility at work, value work as very important. Both the chosen profession and a positive working environment could play an important role here, as evidenced by the respondents' answers. Some studies have also shown that healthcare workers such as nurses positively associate work environment with work importance (Al-Hamdan, 2017).

To measure appreciation, respondents were asked the following question: ‘does management appreciate your work and give you recognition?’ Table 3 shows that the highest appreciation scores are among nurses ( $58.33 \pm 25.00$ ), which is the only case among the occupational groups where the mean value exceeds 50 points. This suggests that the organisation needs to improve its approach to feedback and performance appraisal. Lower scores are observed among doctors and functional specialists ( $44.79 \pm 27.56$ ), and even lower among support staff ( $41.67 \pm 34.16$ ). It is proved that if workers tend to work closely with managers then they receive higher support and appraisal that can influence job outcomes and results (Göras et al., 2017).



To assess role clarity, respondents were asked the question: ‘do you have clear objectives for your work?’ Table 4 shows relatively high role clarity scores for all occupational groups surveyed, which is also likely to be related to the specialisation of the healthcare workforce. Nurses have a particularly high role clarity score ( $80.56 \pm 27.32$ ). The scores of doctors, functional specialists, and support staff are slightly lower, with identical mean values. This leads to the conclusion that there is a lack of clarity among employees about the purpose of the work and that the company's management does not pay enough attention to this issue. This is in line with the research of several authors who believe that if employees have clear goals, they know why and how to work and achieve them (Becker & Klimoski, 1989). Role clarity is an important driver of employee performance and has a positive impact on employee satisfaction (Whitaker et al., 2007). In a study on the role significance in small companies, the authors propose to clearly define employee roles, provide periodic objective feedback on performance, and reduce role conflict by setting clear goals for each role. (Thangavelu & Sudhahar, 2017).

**Table 4.** Aspects of the psychosocial environment and risk groups: role clarity, role conflict, effectiveness of management approach, social support from the manager, social support from colleagues, atmosphere at work

Aspects of the psychosocial environment	Profession group	Min	Max	Mean	SD
Role clarity	Doctor or functional specialist	50	100	70.83	14.12
	Nurse	25	100	80.56	27.32
	Support staff	50	100	70.83	18.82
Role conflict	Doctor or functional specialist	0	100	45.31	25.61
	Nurse	0	50	15.28	15.19
	Support staff	0	100	45.83	42.42
Effectiveness of management approach	Doctor or functional specialist	0	75	55.21	27.75
	Nurse	25	100	62.50	17.68
	Support staff	25	100	58.33	24.62
Social support from the manager	Doctor or functional specialist	0	100	68.75	29.72
	Nurse	50	75	63.89	13.18
	Support staff	25	100	54.17	36.80
Social support from colleagues	Doctor or functional specialist	50	100	78.13	15.31
	Nurse	75	100	86.11	13.18
	Support staff	50	100	83.33	20.41
Atmosphere at work	Doctor or functional specialist	50	100	81.25	13.29
	Nurse	75	100	88.89	13.18
	Support staff	50	100	79.17	18.82

Min – minimal value; Max – maximal value; Mean – mean value; SD – standard deviation.

To assess role conflict, respondents were asked the following questions: ‘are there conflicting demands on you at work?’ and ‘do you tend to have work tasks that need to be done differently than usual?’ Table 4 shows that the average value of the responses for all occupational groups involved in the study does not exceed 50 points, i.e. the incidence of role conflict is relatively low. The highest scores are for support staff ( $45.83 \pm 42.42$ ), with slightly lower scores for doctors and functional specialists ( $45.31 \pm 25.61$ ). Nurses score particularly low, with a relatively low standard deviation

(15.28 ± 15.19). In this case (conflicting demands), this reduces the causes of stress at work, but it also shows a certain monotony at work (tasks that must be done differently from usual). These results are in accordance with other findings that state that work-related psychosocial risk factors including quantitative demands workload, emotional demands, work pace and role conflicts have impact on stress levels and burnout syndrome (Freimann & Merisalu, 2015). The low scores for role conflict in our study might reduce the causes of stress at work but suggest a higher level of routine in the tasks of professionals such as nurses.

To assess the effectiveness of the management approach, respondents were asked the following questions: ‘to what extent would you say that your line manager plans well?’ and ‘to what extent would you say that your line manager is able to deal with conflict situations?’ The scores for the effectiveness of the management approach for the occupational groups in the study are above 50, indicating satisfactory management skills of line managers in the organisation. Nurses have the highest scores (62.50 ± 17.68), while support staff have slightly lower scores (58.33 ± 24.62). The lowest scores for management approach are for doctors and functional specialists (55.21 ± 27.75). It should be noted that feedback and collaboration with management very essential factors and it aligns with other findings that the management link with employees is the strongest if the employees are motivated for work, receive support from the management, participate in decision making, and if they are involved in the development and implementation of changes (Kalkis & Roja, 2016).

To assess the social support of managers, respondents had to answer the question: ‘how often do you get help and support from your line manager when you need it?’ The occupational groups involved in our study indicating that managers generally provide social support to employees on a regular basis. Several studies have also concluded that lack of management support is a factor that could lead to post-traumatic stress disorder, depression and anxiety in healthcare workers (Feingold et al., 2021). Another study shows that the risk of anxiety, depression, burnout is halved for healthcare workers if they are supported by management (Smallwood et al., 2021). The results of our study add to this evidence. Similar results were obtained also in a study of the mental health burden during the Covid 19 pandemic, where the authors concluded that if healthcare managers and organisations had provided adequate information, communication and support, the mental health burden could have been reduced early in the pandemic (Ralph, 2022).

To assess the social support of colleagues, respondents had to answer the following question: ‘how often do you get help and support from your colleagues when you need it?’ According to the survey results, the score for social support of colleagues is particularly high, above 75 (often), and no respondent scored below 50 (*sometimes*). This indicates a strong collegial relationship between the employees of the selected organisation. The average value is highest among nurses (86.11 ± 13.18) and slightly lower among support staff (83.33 ± 20.41). Several studies have indicated that working conditions (i.e. management and colleague support, workload) can influence the incidence of adverse events, as well as contribute to health problems caused by psychosocial risks, such as burnout syndrome, etc. (Jarrar, 2023).

To assess the atmosphere at work, respondents were asked the question: ‘do you have a good relationship with your colleagues?’ All occupational groups surveyed score particularly highly, with a relatively low standard deviation of over 75 points in all cases, and no respondent scoring below 50 points (sometimes). This reflects a favourable social environment in the organisation. The highest mean (almost 90 points) is observed for nurses ( $88.89 \pm 13.18$ ), slightly lower for doctors and functional specialists ( $81.25 \pm 13.29$ ). The lowest work atmosphere score, however, is above 75 for support staff ( $79.17 \pm 18.82$ ).

**Table 5.** Aspects of the psychosocial environment and risk groups: job insecurity, insecurity about working conditions, satisfaction with work, work-life balance, trust in management, fairness, self-assessment of health

Aspects of the psychosocial environment	Profession group	Min	Max	Mean	SD
Job insecurity	Doctor or functional specialist	0	100	42.19	33.08
	Nurse	0	75	38.89	28.73
	Support staff	0	100	70.83	33.43
Insecurity about working conditions	Doctor or functional specialist	0	100	32.29	31.69
	Nurse	0	75	41.67	27.95
	Support staff	0	100	50.00	41.83
Satisfaction with work	Doctor or functional specialist	50	100	68.75	16.89
	Nurse	75	75	75.00	0.00
	Support staff	50	100	62.50	20.92
Work-life balance	Doctor or functional specialist	0	100	52.08	28.17
	Nurse	25	100	54.17	17.68
	Support staff	0	100	62.50	37.69
Trust in management	Doctor or functional specialist	25	100	69.79	15.44
	Nurse	50	100	84.72	17.45
	Support staff	25	100	79.17	25.75
Fairness	Doctor or functional specialist	0	100	55.21	20.60
	Nurse	25	100	66.67	21.00
	Support staff	25	100	72.92	22.51
Self-assessment of health	Doctor or functional specialist	0	75	41.67	19.03
	Nurse	25	50	36.11	13.18
	Support staff	0	75	29.17	24.58

Min – minimal value; Max – maximal value; Mean – mean value; SD – standard deviation.

To assess job insecurity, respondents were asked the following questions: ‘are you worried about being out of a job?’ and ‘if you are unemployed, are you worried about the difficulties you might have in finding another job?’ Table 5 shows a relatively high standard deviation of responses across all occupational groups, most likely due to differences in individuals' self-assessment of their competitiveness in the labour market, but the average score for job insecurity among nurses ( $41.67 \pm 27.95$ ), doctors and functional specialists ( $32.29 \pm 31.69$ ) does not exceed 50 points. This is most likely due to the inherent labour shortage in the healthcare sector in Latvia, where skilled workers have less difficulty finding other jobs. In contrast, in the support staff group, where employees generally do not need special qualifications, which makes them less competitive on the labour market, the job insecurity score is critical, i.e. there is concern about potential job loss and/or difficulty in finding a new job.

To assess insecurity about working conditions, respondents had to answer the question: ‘are you worried about being transferred to another job against your will?’ Table 5 shows a relatively high standard deviation of responses across all occupational groups, which is most likely due to differences in individuals' perceptions of working conditions. Among doctors, functional specialists and nurses, the average score for job insecurity is below 50, which is most likely due to the specialisation of healthcare workers, which narrows the scope for job transfers. Support staff have a higher job insecurity score ( $50.00 \pm 41.83$ ), i.e. they are more worried about potential changes in their working conditions.

To measure job satisfaction, respondents had to answer the question: ‘how satisfied are you with your job overall?’ Nurses have the highest job satisfaction ( $75.00 \pm 0.00$ ) with a mean of 75 points, which corresponds to the numerical value of satisfied, and there is consistency between the answers, with no standard deviation. Doctors and functional specialists scored slightly lower ( $68.75 \pm 16.89$ ), while the lowest level of satisfaction was observed among support staff ( $62.50 \pm 20.92$ ), with a mean value above 50 (moderately satisfied).

To assess work-life balance, respondents were asked the following questions: ‘do you feel that your work consumes too much energy and that this has a negative impact on your private life?’ and ‘do you feel that your work takes up too much of your time and that it has a negative impact on your private life?’ Table 5 shows that all occupational groups have a mean value above 50 (rather), which indicates a moderate work-life imbalance among employees in the selected organisation. The highest mean value is observed among support staff ( $62.50 \pm 37.69$ ), slightly lower among nurses ( $54.17 \pm 17.68$ ), and lowest among doctors and functional specialists ( $52.08 \pm 28.17$ ). Other studies analysing the impact of the type of employment (full-time or part-time) of doctors on work-life balance have found that the differences in scores are not significant. This suggests that it is not only the factor of working time or time spent physically at work that has a negative impact on private life (Bodendieck et al., 2022), but also factors related to the content of the work (Fuß et al., 2008).

To assess trust in management, respondents had to answer the following questions: ‘does management trust employees to do their job well?’ and ‘can employees trust the information they receive from management?’ Relatively high scores on trust in management are found in all occupational groups, similar to or higher than the scores on the effectiveness of the management approach. Nurses have the highest scores ( $84.72 \pm 17.45$ ), but with a relatively low standard deviation of responses. Support staff have slightly lower scores ( $79.17 \pm 25.75$ ), and doctors and functional specialists have even lower scores ( $69.79 \pm 15.44$ ). Nevertheless, in all cases the score is above 50 (somewhat) and in two out of three cases it is above 75 (to a large extent), which indicates a favourable social environment in the organisation, also in the context of subordination.

To assess fairness in the organisation, respondents answered the following questions: ‘are conflicts handled fairly?’ and ‘are workloads distributed fairly?’ In all occupational groups, the average score is above 50 (more likely), indicating a favourable social environment in the organisation and a low risk of discrimination. The highest fairness scores are for support staff ( $72.92 \pm 22.51$ ) and lower for nurses ( $66.67 \pm 21.00$ ). The lowest fairness scores are among doctors and functional specialists ( $55.21 \pm 20.60$ ).

To self-assess their health status, respondents answered the question: ‘overall, how would you say your health status is?’ In all occupational groups, the average score is below 50, which corresponds to the numerical value of a ‘good’ answer. No respondent answered ‘excellent’. In general, respondents' self-assessment of their health is self-critical. The highest scores are for doctors and functional specialists ( $41.67 \pm 19.03$ ), the lowest for nurses ( $36.11 \pm 13.18$ ). Particularly low scores are seen among support staff ( $29.11 \pm 24.58$ ). Studies by other authors show similar results, i.e., the overall perception of quality of life for healthcare workers is moderate, overall stress levels are moderately elevated and most had average resources to cope with their duties (Kumar et al., 2018).

The aspects with a mean value of more than 75 points include job importance ( $86.54 \pm 14.81$ ), work atmosphere ( $82.69 \pm 14.04$ ), and social support from colleagues ( $80.77 \pm 15.46$ ). Critical aspects with a mean score just above or below 50 include work-life balance ( $54.17 \pm 27.57$ ), appreciation ( $47.44 \pm 27.62$ ), and self-rated health ( $38.46 \pm 18.64$ ). The moderate work-life imbalance found in the selected organisation is a psychosocial risk with a potentially high impact on employees' health. The relatively low appreciation score indicates a management approach that needs improvement in the context of performance appraisal and feedback. The relatively low self-assessment of health status identifies the importance of implementing health promotion activities in an organisation with a high potential for benefits for both employees and the organisation.

Overall, the research provides the importance of addressing psychosocial risks for healthcare employees in a chosen Rehabilitation Centre. Analysing the COPSOQ III survey highlights both organizational strengths and critical aspects within the work environment. While aspects such as job importance, work atmosphere, and social support from colleagues had high scores, significant psychosocial risks were identified for different occupational groups. These risks include high quantitative and emotional loads for doctors, work predictability issues for nurses, and role conflicts for support staff. The moderate work-life imbalance found in the selected organisation is a psychosocial risk with a potentially high impact on employees' health. The relatively low appreciation score indicates a management approach that needs improvement in the context of performance appraisal and feedback. The relatively low self-assessment of health status identifies the importance of implementing health promotion activities in an organisation with a high potential for benefits for both employees and the organisation. Authors of the study suggests that the Copenhagen Psychosocial Questionnaire short version is an effective tool for investigating these risks and highlights the need for future research focusing on cognitive tests to further understand and address these challenges.

## CONCLUSIONS

Psychosocial risks are the most essential ones for healthcare employees in Rehabilitation Centre. Regardless of the occupational groups represented, looking at the COPSOQ III (short version) survey as a whole it is possible to distinguish between the strengths of the organisation and the critical aspects for those working in the organisation. The most important psychosocial risks of the work environment for doctors or functional specialists are high quantitative and emotional load that has been influenced by high impact on a work process, job prospects, importance of the work duties, lower social support from the managers, low self-assessment of health. But for nurses the main psychosocial risks relate to high physical and emotional load influenced

by work predictability factors, high importance of work, unclear roles, low social support from managers and colleagues, high job insecurity, low work-life balance, self-assessment and fairness factors. And for support staff main risks are concerned with high quantitative load and work pace, importance of work, lack of appreciation, role conflicts, low social support from managers and atmosphere at work, as well as high job insecurity and low satisfaction with work, weak self-assessment of health. Overall health assessment shows that the highest scores are among doctors and functional specialists, the lowest among nurses. Particularly low scores are found among support staff. The relatively high job importance probably reflects a high level of responsibility towards the job and confirms the assumption of a sense of mission inherent in healthcare workers. The high scores for work atmosphere and social support from colleagues reflect the favourable social environment in the context of employee relationships.

Limitations of the research included the relatively small sample size from one Rehabilitation Centre, which may limit the generalizability of the findings to other healthcare settings, but at the same time discussion of the research results provided valuable insights into the topic. Differences in organizational culture, management practices, and patient populations could influence the prevalence and impact of psychosocial risks.

The study suggests the need for further research using cognitive tests to better understand psychosocial risks for health care workers. Future studies should address these limitations to provide a more comprehensive understanding of the topic. Future research with larger, more diverse sample size and objective measures of data will help to further address findings and supplementing it with qualitative methods could provide a more comprehensive understanding. Authors will conduct longitudinal study to track the long-term effects of psychosocial risks on the health and well-being of healthcare workers in rehabilitation centres as well as compare psychosocial risks and their impact on healthcare workers across different types of healthcare settings, including hospitals.

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