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Diagnosis of Psychosocial Risk Determinants and the Prioritization of Organizational Intervention Objects Among Medical Occupational Groups in a Public Healthcare Institution †

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Abstract: *Background and Objectives:* As the work environment is one of the most significant sources of stress, employers in the European Union are obliged to identify psychosocial risk determinants and take preventive measures to improve workers' health and well-being while at work. The aim of this study was to determine which medical occupational group is the most exposed to stress and where any differences lie between medical occupational groups regarding the perception of psychosocial risk determinants and organizational intervention objects in the Lithuanian public healthcare institution. *Material and Methods*: Using a cross-sectional study design, paper questionnaires were delivered to all health workers (n = 690) of the Lithuanian public healthcare institution; the response rate 68% (n = 467). The questionnaire consisting of three parts was completed for the survey. It covers 14 psychosocial risk determinants, 10 organizational intervention objects, sociodemographic data of health workers. *Results*: The results showed that perceived stress had mean rank scores differing statistically significant (p-value <0.05) across occupational groups. The highest stress rating was given by a doctors' group. Regarding psychosocial risk determinants, there were statistically significant differences (p-value <0.05) in work overload scores among doctors, heads of units, other health workers; in overtime scores and in tight deadlines scores between doctors and other health workers; in unclear role scores among all medical occupational groups; in being underskilled for a job scores between nurses and doctors; in responsibility for decision making scores among heads of units, doctors, other health workers. Concerning organizational intervention objects, there were statistically significant differences (p-value <0.05) in work-life balance scores, ensuring skills/abilities matching to the job demands scores, social support scores, organizational support scores, participation in decision-making scores, justice of reward scores, manager feedback scores, variety of tasks scores among heads of units, doctors, nurses, other health workers. *Conclusions*: The results of the study confirmed that different occupational groups emphasized different psychosocial risk determinants and organizational intervention objects. The findings suggest that focusing on the average worker do not have practical value, and that it is important to understand the differential effects of different job characteristics on work outcomes considering occupational status while developing coping strategies in the institution. The risk group with the most exposed to stress were doctors in the healthcare institution.

Keywords: psychosocial risk determinants; organizational interventions; health workers

1. Introduction

European Commission Directorate-General for Employment, Social Affairs and Inclusion commissioned a survey designed to explore a range of questions about working

conditions and occupational health and safety [1]. The survey revealed that amongst current workers exposure to stress is considered as one of the main health and safety risks they face in their workplace (53%). The third edition of EU-OSHA's ESENER survey carried out in 2019, focusing particularly on the management of psychosocial risks such as work-related stress and harassment [2]. ESENER-3 showed that some of the psychosocial risk factors are present in a significant share of establishments in the EU28, namely having to deal with difficult patients, customers and pupils (61%) and time pressure (44%). A growing body of research demonstrates that work-related stress can affect workers' health and wellbeing. Work-related stress is associated with cardiovascular disease, diabetes, mental health and sleep disorders, and other health problems [3–10]. Stress at work harms not only employees' health, but also has negative consequences for the organization performance and national economy [11,12]. Despite a common understanding of psychosocial risks and ample evidence of the negative impact of these risks on workers' health and organizational performance, the biggest problem remains–psychosocial risk management and the practical application of empirical research findings [13,14]. One of the reasons may be that different occupations are affected by different stressors, and their stress level is determined by the interaction of many factors, such as–job characteristics, organizational culture, regulatory mechanisms in the field of profession etc. The research findings suggest that systematic assessment of risk groups on the basis of sociodemographic factors, especially occupational status, could facilitate psychosocial risk management in an organization [15,16]. According to Dudutienė, Juodaitė Račkauskienė and Stukas research findings, occupational groups are the key factor that should be considered when managing psychosocial risks at the public primary healthcare institution [17]. Healthcare institution is a specific organization, and likely to comprise competing and overlapping occupational groups. "Thus, a key challenge to culture change programmes is to consider carefully the impact of change on specific groups (e.g. doctors, nurses and other health professionals, and managers) and to design appropriate policies to accommodate this" [18]. The study was designed to find out which medical occupational group is most exposed to stress and whether the perception of psychosocial risk determinants and the priorities of organizational intervention objects differ among medical staff holding different positions in the Lithuanian public healthcare institution.

2. Materials and Methods

The study, authorised by the administration, was conducted in one of the largest public primary healthcare institutions in Lithuania from February to March 2017. All 690 health workers employed in the institution were invited to participate on a voluntary basis. In order to guarantee anonymity and confidentiality in accordance with Lithuanian law, each health worker received information about the research and the paper questionnaire. The self-administrated questionnaire (instrument) has been introduced and used [17,19] in conducting complex stress management research in Lithuanian organizations. In this cross-sectional study, adapted to health work version of the validated instrument was used [17].

Data were analyzed using the statistical software package IBM SPSS Statistics (Vilnius University, Vilnius, Lithuania). A descriptive analysis was carried out to examine the sociodemographic characteristics of health workers in the institution. The Kruskal–Wallis test for comparisons of the occupational groups were used then. Subsequently, pairwise comparisons were performed using Dunn's procedure with a Bonferroni correction for multiple comparisons. Statistical significance was considered with p-value < 0.05 and 95 % confidence interval (CI).

3. Results

A total of 467 health workers completed the survey. The response rate was 68%.

The descriptive analysis results [17] showed a predominance of women (94.9%), almost half of health workers (47.9%) were over 50 years of age, 350 of the health workers (76.1%) worked over 10 years, and more than half of all health workers (52.9%) had university degrees, 38.5% of health workers had higher school degrees, and 8.6% of health workers had other levels of education. Regarding occupational status, the majority of health workers were nurses (43.9%), followed by doctors (28.3%), other health workers (21.6%), and heads of units (6.2%).

Tables and pictures below present the attitudes of the occupational groups to the psychosocial risk determinants and organizational intervention objects (mean ranks, sample sizes (N), χ^2 values, with k-1 degrees of freedom and significance levels (p)).

3.1. Stress and Occupational Groups

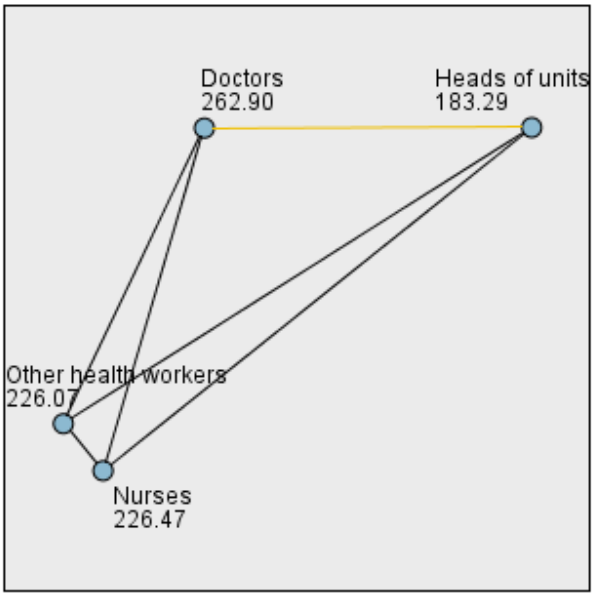
The mean ranks of work-related stress scores were statistically significantly different between groups, $\chi^2(3) = 12.14$, $p < 0.01$ (Table 1).

Table 1. Stress and occupational groups, results of the Kruskall–Wallis test.

Groups	N	Mean rank	$\chi^2(3)$	p
Heads of units	29	183.29	12.14	<0.01
Doctors	132	262.90		
Nurses	205	226.47		
Other health workers	101	226.07		

Subsequently, pairwise comparisons were performed using Dunn's procedure with a Bonferroni correction for multiple comparisons. This post hoc analysis revealed statistically significant differences in work-related stress scores between doctors (262.90) and heads of units (183.29) ($p = 0.016$) (Figure 1).

Pairwise Comparisons of Occupations



Each node shows the sample average rank of Occupations.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Heads of units-Other health workers	-42.781	27.233	-1.571	.116	.697
Heads of units-Nurses	-43.175	25.646	-1.684	.092	.554
Heads of units-Doctors	-79.608	26.510	-3.003	.003	.016
Other health workers-Nurses	.394	15.715	.025	.980	1.000
Other health workers-Doctors	36.827	17.089	2.155	.031	.187
Nurses-Doctors	36.433	14.426	2.526	.012	.069

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

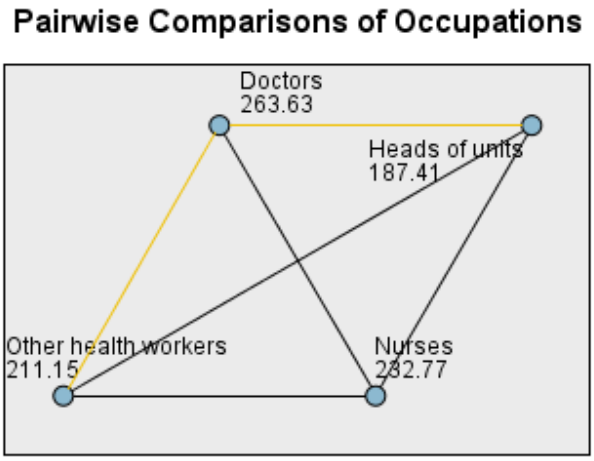
Figure 1. Stress and occupational groups, results of post-hoc analyses.

3.2. Psychosocial Risk Determinants and Occupational Group

Results of the Kruskal–Wallis test [17] showed that six psychosocial risk determinants (work overload, $\chi^2(3) = 13.41$, $p < 0.01$; overtime $\chi^2(3) = 14.23$, $p < 0.01$; tight deadlines $\chi^2(3) = 8{,}64$, $p = 0.03$; unclear role, $\chi^2(3) = 15.24$, $p < 0.01$; being under-skilled $\chi^2(3) = 10.30$, $p = 0.02$; responsibility $\chi^2(3) = 13.66$, $p < 0.01$) had mean rank scores differing statistically across occupational groups.

The post hoc analysis revealed statistically significant differences in:

— *Work overload* scores between doctors (263.63) and heads of the units (187.41) ($p = 0.028$), and doctors and other health workers (211.15) ($p = 0.015$) (picture 2),



Each node shows the sample average rank of Occupations.

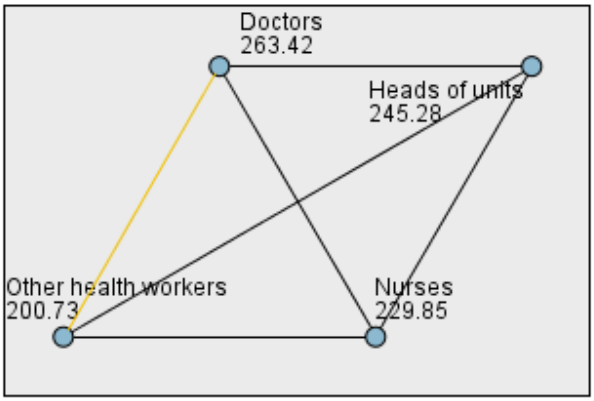
Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Heads of units-Other health workers	-23.740	27.703	-.857	.391	1.000
Heads of units-Nurses	-45.354	26.089	-1.738	.082	.493
Heads of units-Doctors	-76.215	26.968	-2.826	.005	.028
Other health workers-Nurses	21.615	15.986	1.352	.176	1.000
Other health workers-Doctors	52.475	17.384	3.019	.003	.015
Nurses-Doctors	30.860	14.675	2.103	.035	.213

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Figure 2. Work overload and occupational groups, results of post-hoc analyses.

— *Overtime* scores between doctors (263.42) and other health workers (200.73) ($p = 0.001$) (Figure 3),

Pairwise Comparisons of Occupations



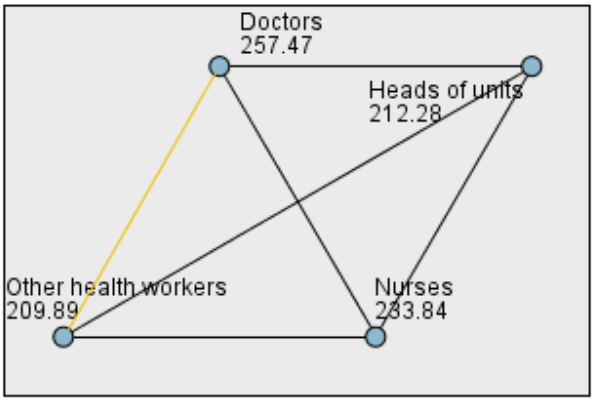
Each node shows the sample average rank of Occupations.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Other health workers-Nurses	29.121	15.563	1.871	.061	.368
Other health workers-Heads of units	44.543	26.971	1.652	.099	.592
Other health workers-Doctors	62.684	16.924	3.704	.000	.001
Nurses-Heads of units	15.422	25.399	.607	.544	1.000
Nurses-Doctors	33.563	14.287	2.349	.019	.113
Heads of units-Doctors	-18.141	26.255	-.691	.490	1.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Figure 3. Overtime and occupational groups, results of post-hoc analyses.

— *Tight deadlines* scores between doctors (257.47) and other health workers (209.89) ($p = 0.033$) (Figure 4),



Each node shows the sample average rank of Occupations.

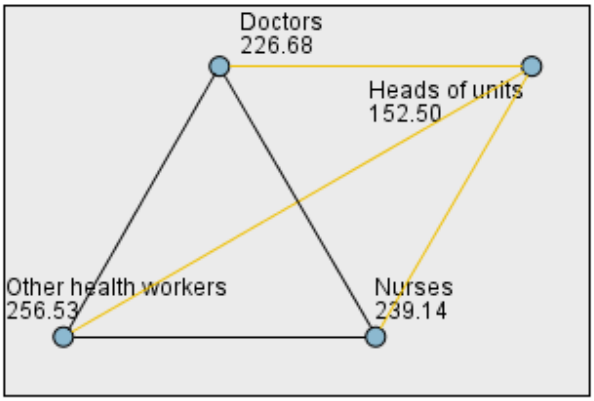
Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Other health workers-Heads of units	2.390	27.306	.088	.930	1.000
Other health workers-Nurses	23.955	15.757	1.520	.128	.771
Other health workers-Doctors	47.584	17.135	2.777	.005	.033
Heads of units-Nurses	-21.566	25.714	-.839	.402	1.000
Heads of units-Doctors	-45.194	26.581	-1.700	.089	.535
Nurses-Doctors	23.628	14.464	1.634	.102	.614

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Figure 4. Tight deadlines and occupational groups, results of post-hoc analyses.

— *Unclear role* scores between heads of the units (152.50) and doctors (226.68) ($p = 0.032$), heads of the units and nurses (239.14) ($p = 0.005$), and heads of the units and other health workers (256.53) ($p = 0.001$) (Figure 5),

Pairwise Comparisons of Occupations



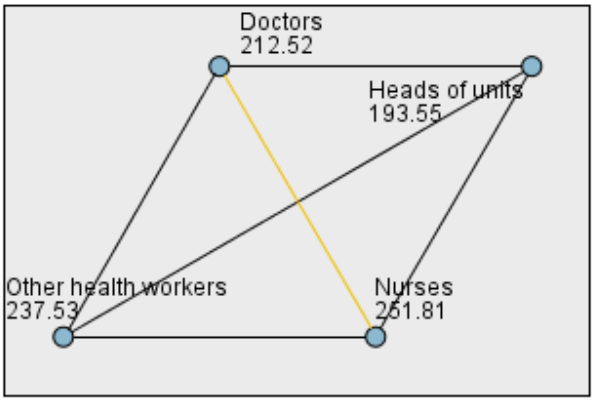
Each node shows the sample average rank of Occupations.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Heads of units-Doctors	-74.178	26.604	-2.788	.005	.032
Heads of units-Nurses	-86.644	25.737	-3.367	.001	.005
Heads of units-Other health workers	-104.030	27.330	-3.806	.000	.001
Doctors-Nurses	-12.466	14.477	-.861	.389	1.000
Doctors-Other health workers	-29.852	17.150	-1.741	.082	.490
Nurses-Other health workers	-17.386	15.771	-1.102	.270	1.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Figure 5. Unclear role and occupational groups, results of post-hoc analyses.

— *Being under-skilled* scores between doctors (212.52) and nurses (251.81) ($p = 0.041$) (Figure 6),



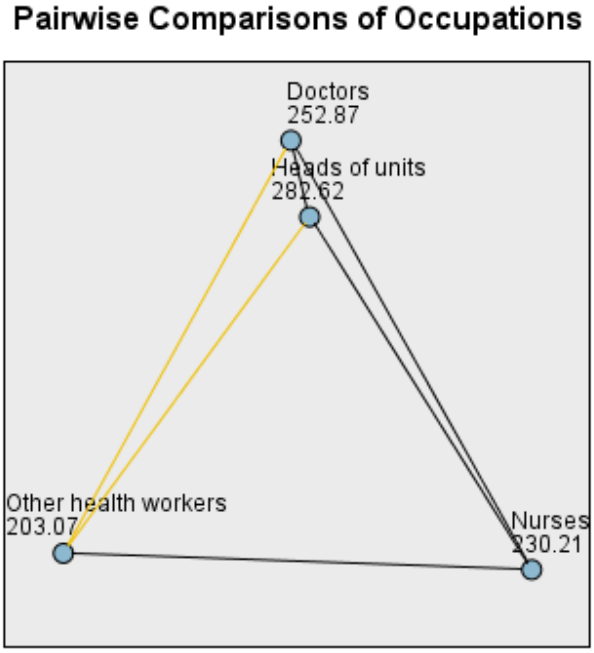
Each node shows the sample average rank of Occupations.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Heads of units-Doctors	-18.971	26.703	-.710	.477	1.000
Heads of units-Other health workers	-43.978	27.431	-1.603	.109	.653
Heads of units-Nurses	-58.260	25.833	-2.255	.024	.145
Doctors-Other health workers	-25.007	17.213	-1.453	.146	.878
Doctors-Nurses	-39.289	14.531	-2.704	.007	.041
Other health workers-Nurses	14.282	15.829	.902	.367	1.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Figure 6. Being under-skilled and occupational groups, results of post-hoc analyses.

— *Responsibility* scores between other health workers (203.07) and doctors (252.87) ($p = 0.016$), and other health workers and heads of the units (282.62) ($p = 0.016$) (Figure 7).



Each node shows the sample average rank of Occupations.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Other health workers-Nurses	27.143	15.256	1.779	.075	.451
Other health workers-Doctors	49.798	16.590	3.002	.003	.016
Other health workers-Heads of units	79.551	26.438	3.009	.003	.016
Nurses-Doctors	22.655	14.005	1.618	.106	.634
Nurses-Heads of units	52.408	24.897	2.105	.035	.212
Doctors-Heads of units	29.753	25.736	1.156	.248	1.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Figure 7. Responsibility and occupational groups, results of post-hoc analyses.

3.3. Organizational Intervention Objects and Occupational Group

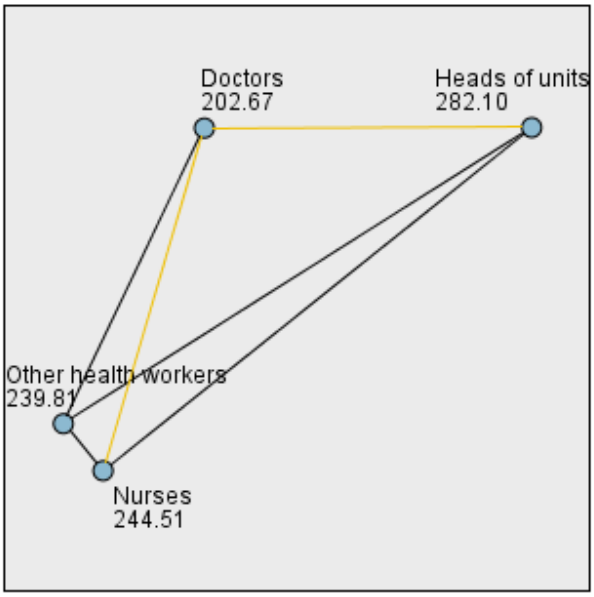
Results of the Kruskal–Wallis test [17] showed that all organizational intervention objects (except stress management training) had mean rank scores differing statistically across occupational groups: work–life balance, $\chi^2(3) = 13.19$, $p < 0.01$; skills/abilities matching to the job demands, $\chi^2(3) = 15.29$, $p < 0.01$; variety of tasks, $\chi^2(3) = 51.06$, $p < 0.01$; social support, $\chi^2(3) = 9.33$, $p = 0.02$; organizational support, $\chi^2(3) = 17.88$, $p < 0.01$; participation

in decision making, $\chi^2(3) = 8.08$, $p = 0.04$; communication, $\chi^2(3) = 10.10$, $p = 0.02$; justice of reward, $\chi^2(3) = 14.70$, $p < 0.01$; manager feedback, $\chi^2(3) = 15.65$, $p < 0.01$.

The post hoc analysis revealed statistically significant differences in:

— *Work–life balance* scores between doctors (202.67) and heads of the units (282.10) ($p = 0.017$), and doctors and nurses (244.51) ($p = 0.023$) (Figure 8),

Pairwise Comparisons of Occupations



Each node shows the sample average rank of Occupations.

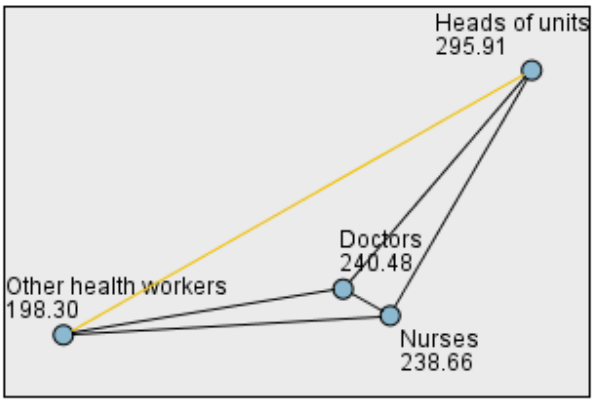
Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Doctors-Other health workers	-37.145	17.179	-2.162	.031	.184
Doctors-Nurses	-41.841	14.502	-2.885	.004	.023
Doctors-Heads of units	79.437	26.651	2.981	.003	.017
Other health workers-Nurses	4.695	15.798	.297	.766	1.000
Other health workers-Heads of units	42.292	27.377	1.545	.122	.734
Nurses-Heads of units	37.596	25.782	1.458	.145	.869

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Figure 8. Work–life balance and occupational groups, results of post-hoc analyses.

— *Skills/abilities matching to the job demands* scores between heads of the units (295.91) and other health workers (198.30) ($p = 0.002$) (Figure 9),

Pairwise Comparisons of Occupations



Each node shows the sample average rank of Occupations.

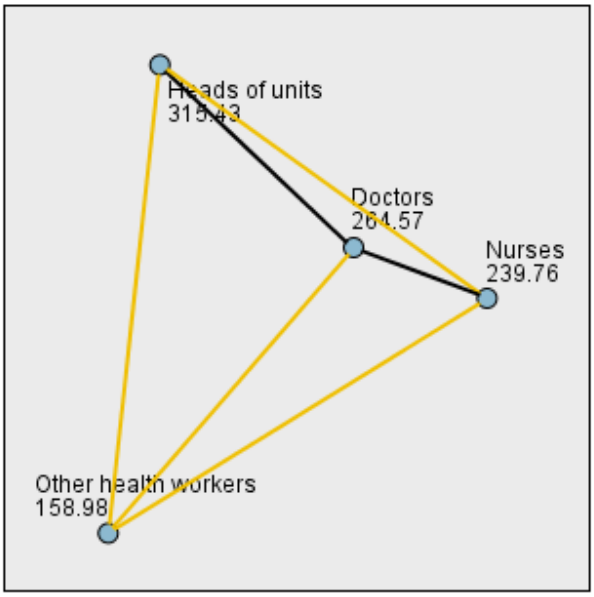
Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Other health workers-Nurses	40.359	15.544	2.596	.009	.057
Other health workers-Doctors	42.188	16.903	2.496	.013	.075
Other health workers-Heads of units	97.617	26.937	3.624	.000	.002
Nurses-Doctors	1.829	14.269	.128	.898	1.000
Nurses-Heads of units	57.258	25.367	2.257	.024	.144
Doctors-Heads of units	55.429	26.222	2.114	.035	.207

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Figure 9. *Sk*ills/abilities matching to the job demands and occupational groups, results of post-hoc analyses.

— *Variety of tasks* scores between other health workers (158.98) and doctors (264.57) ($p < 0.001$), other health workers and heads of the units (315.43) ($p < 0.001$), and other health workers and nurses (239.76) ($p < 0.001$); heads of the units and nurses ($p = 0.023$) (Figure 10),

Pairwise Comparisons of Occupations



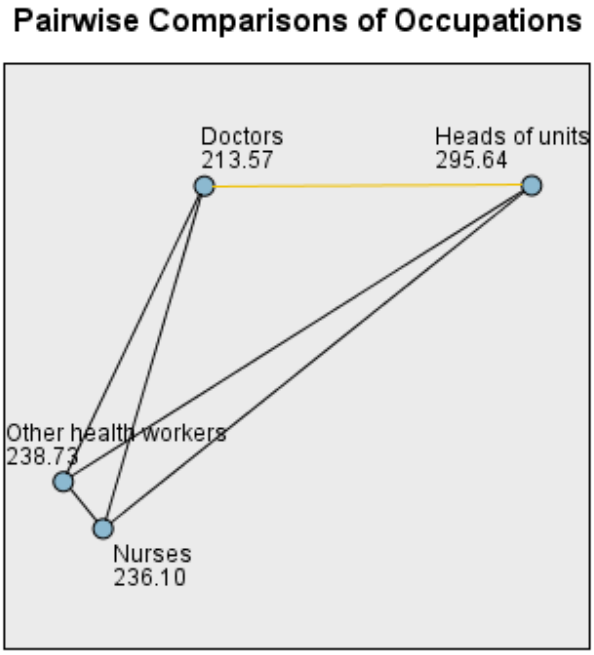
Each node shows the sample average rank of Occupations.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Other health workers-Nurses	80.778	16.059	5.030	.000	.000
Other health workers-Doctors	105.588	17.463	6.046	.000	.000
Other health workers-Heads of units	156.451	27.829	5.622	.000	.000
Nurses-Doctors	24.810	14.741	1.683	.092	.554
Nurses-Heads of units	75.672	26.207	2.888	.004	.023
Doctors-Heads of units	50.863	27.090	1.878	.060	.363

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Figure 10. Variety of tasks and occupational groups, results of post-hoc analyses.

— *Social support*: scores between doctors (213.57) and heads of the units (295.64) (p = 0.017) (Figure 11),



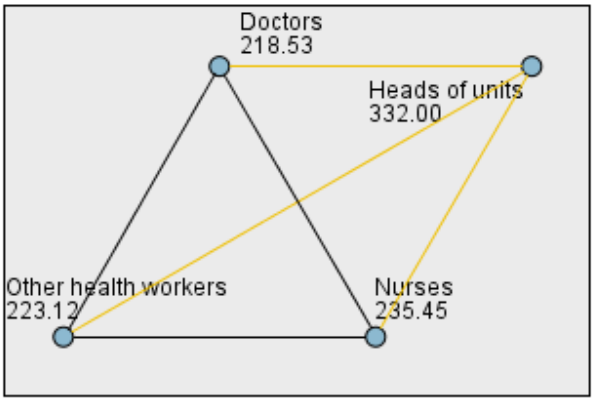
Each node shows the sample average rank of Occupations.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Doctors-Nurses	-22.537	14.999	-1.503	.133	.798
Doctors-Other health workers	-25.164	17.768	-1.416	.157	.940
Doctors-Heads of units	82.070	27.563	2.978	.003	.017
Nurses-Other health workers	-2.628	16.339	-.161	.872	1.000
Nurses-Heads of units	59.533	26.665	2.233	.026	.153
Other health workers-Heads of units	56.905	28.315	2.010	.044	.267

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Figure 11. Social support and occupational groups, results of post-hoc analyses.

— *Organizational support* scores between heads of the units (332.00) and doctors (218.53) ($p < 0.001$), heads of the units and nurses (235.45) ($p = 0.002$), and heads of the units and other health workers (223.12) ($p = 0.001$) (Figure 12),



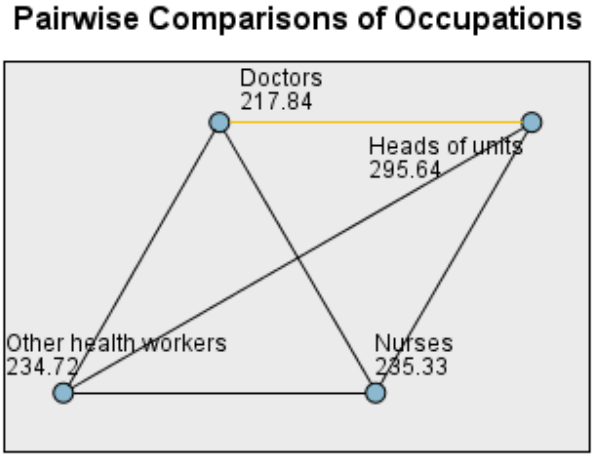
Each node shows the sample average rank of Occupations.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Doctors-Other health workers	-4.590	17.755	-.259	.796	1.000
Doctors-Nurses	-16.920	14.988	-1.129	.259	1.000
Doctors-Heads of units	113.466	27.543	4.120	.000	.000
Other health workers-Nurses	12.330	16.327	.755	.450	1.000
Other health workers-Heads of units	108.876	28.294	3.848	.000	.001
Nurses-Heads of units	96.546	26.645	3.623	.000	.002

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Figure 12. Organizational support and occupational groups, results of post-hoc analyses.

— *Participation in decision making* scores between heads of the units (295.64) and doctors (217.84) ($p = 0.028$) (Figure 13),



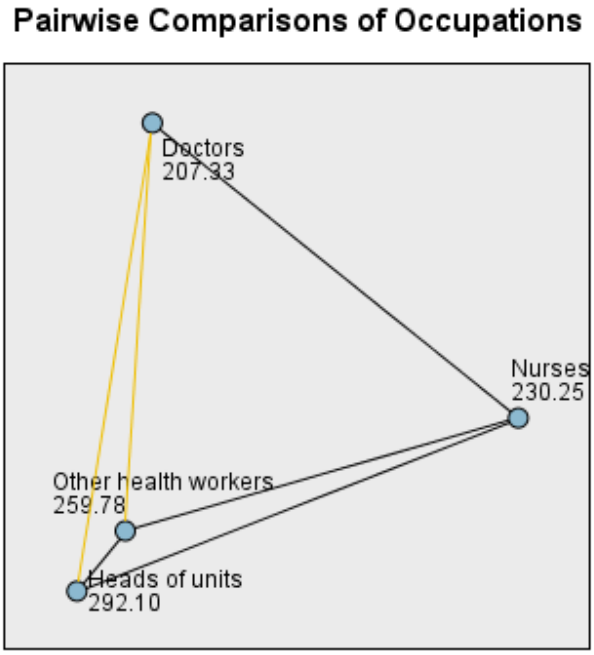
Each node shows the sample average rank of Occupations.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Doctors-Other health workers	-16.881	17.712	-.953	.341	1.000
Doctors-Nurses	-17.497	14.952	-1.170	.242	1.000
Doctors-Heads of units	77.801	27.477	2.831	.005	.028
Other health workers-Nurses	.616	16.288	.038	.970	1.000
Other health workers-Heads of units	60.920	28.226	2.158	.031	.185
Nurses-Heads of units	60.304	26.581	2.269	.023	.140

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Figure 13. Participation in decision making and occupational groups, results of post-hoc analyses.

— *Justice of reward* scores between doctors (207.33) and heads of the units (292.10) ($p = 0.012$), and doctors and other health workers (259.78) ($p = 0.018$) (Figure 14),



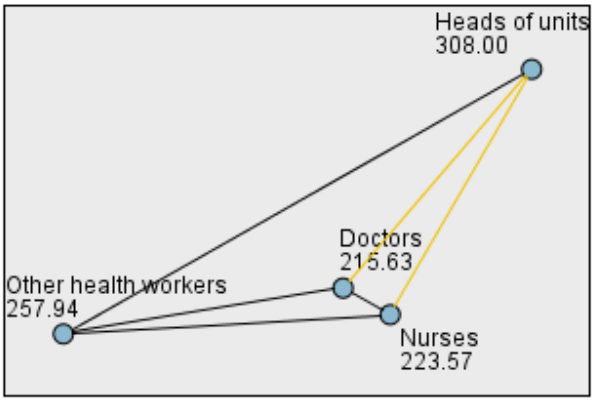
Each node shows the sample average rank of Occupations.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Doctors-Nurses	-22.915	14.892	-1.539	.124	.743
Doctors-Other health workers	-52.449	17.642	-2.973	.003	.018
Doctors-Heads of units	84.770	27.368	3.097	.002	.012
Nurses-Other health workers	-29.533	16.223	-1.820	.069	.412
Nurses-Heads of units	61.855	26.476	2.336	.019	.117
Other health workers-Heads of units	32.321	28.114	1.150	.250	1.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Figure 14. Justice of reward and occupational groups, results of post-hoc analyses.

— *Manager feedback* scores between heads of the units (308.00) and doctors (215.63) ($p = 0.005$), and heads of the units and nurses (223.57) ($p = 0.009$) (Figure 15).



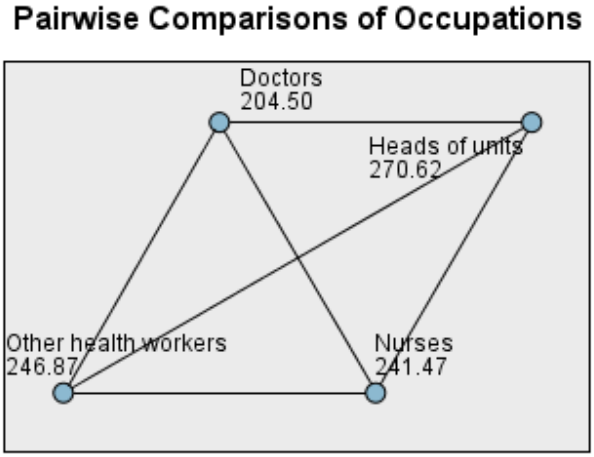
Each node shows the sample average rank of Occupations.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Doctors-Nurses	-7.937	15.020	-.528	.597	1.000
Doctors-Other health workers	-42.312	17.793	-2.378	.017	.104
Doctors-Heads of units	92.371	27.603	3.346	.001	.005
Nurses-Other health workers	-34.375	16.363	-2.101	.036	.214
Nurses-Heads of units	84.434	26.703	3.162	.002	.009
Other health workers-Heads of units	50.059	28.356	1.765	.077	.465

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Figure 15. Manager feedback and occupational groups, results of post-hoc analyses.

The post hoc analysis revealed no statistically significant differences in *Communication* among occupational groups (Figure 16).



Each node shows the sample average rank of Occupations.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Doctors-Nurses	-36.969	14.978	-2.468	.014	.081
Doctors-Other health workers	-42.363	17.743	-2.388	.017	.102
Doctors-Heads of units	66.117	27.525	2.402	.016	.098
Nurses-Other health workers	-5.393	16.317	-.331	.741	1.000
Nurses-Heads of units	29.148	26.628	1.095	.274	1.000
Other health workers-Heads of units	23.754	28.276	.840	.401	1.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Figure 16. Communication and occupational groups, results of post-hoc analyses.

4. Discussion

The study aimed to find out which medical occupational group is the most exposed to stress and whether the perception of psychosocial risk determinants and the priorities of organizational intervention objects differ among medical staff holding different positions in the Lithuanian public healthcare institution.

The study findings suggest that doctors' group is the most exposed to work-related stress. Doctors experienced stress mainly due to high job demands: workload, overtime, tight deadlines, responsibilities. In addition, doctors did not feel the institution's efforts to ensure work-life balance, social support, organizational support, involvement in decision-making, fairness of remuneration. This group also indicated lack of managerial feedback. In line with the literature, the findings confirm that public sector doctors' work is busier and more stressful than other occupation groups' work, and this may lead to burnout and mental health problems [20–23].

Nurses and other health workers were more stressed by role risk determinants: role overload (being under-skilled for a job) and unclear role. The results also confirm the findings of previous studies [24] and suggest that nurses and other health professionals face a conflict between their professional role expectations and work realities [25]. They also pointed out that organizational support did not fulfill their needs. Organizational support has a positive effect on workers' performance and plays an important role in terms of their respect [26]. Other health professionals also indicated lack of variety of tasks.

Heads of units emphasized only responsibility as a psychosocial risk. In addition, all organizational intervention objects were the most relevant to heads of units. These findings are not surprising, as heads of units are responsible for unit performances and their work is largely administrative in nature.

The main limitations of this study are the cross-sectional nature of the study, limiting inferences of causality, and its dependence on self-reporting. Another limitation, it did not include individual intervention objects, "whereas individual-level interventions focus on the problems and needs of individual workers (e.g., through counselling or therapy), organization-level interventions address the health and well-being of relatively large groups of workers in a uniform way (e.g., job redesign, training and education)" [27]. Despite its limitations, this study supports participative problem-solving approaches because "employees are experts on their work and management of the work environment" [28].

5. Conclusions

The findings showed that different medical occupational groups in the same public healthcare institution highlighted different psychosocial risk determinants as causes of stress. The prioritization of the organizational intervention objects among these groups also differed. The study results suggest that focusing on the average worker do not have practical value, and that it is important to understand the differential effects of different job characteristics on work outcomes considering occupational status while developing coping strategies in the institution. Finally, the findings suggest that public health care institution should pay more attention to the working conditions of their doctors, in particular, to time pressure and work overload.

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