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Research article

OCCUPATIONAL AND PSYCHOSOCIAL RISK FACTORS CAUSING A DECLINE IN LABOR PRODUCTIVITY AND HEALTH IMPAIRMENTS IN HEALTHCARE WORKERS

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Working conditions of healthcare workers are characterized by high occupational workload and exposure to both occupational and psychosocial risk factors. These factors create an unfavorable background for maintaining health and contribute to development of chronic diseases and occupational burnout. In modern healthcare systems, it is becoming especially important to perform comprehensive assessment of occupational risks and their impact on healthcare workers' functional state and work ability.

This study aimed to conduct comparative analysis of occupational and psychosocial risk factors contributing to health deterioration among different categories of healthcare workers with evaluating their association with temporary disability and presenteeism levels.

The study was conducted in a multidisciplinary medical institution. A total of 102 healthcare workers with various specialties participated in the survey. Standardized tools were used including the Stanford Presenteeism Scale (SPS-6) and the short version of the Copenhagen Psychosocial Questionnaire II (CoPsoQ II) for psychosocial factors. Descriptive and comparative statistical methods were applied: Mann–Whitney U test, Kruskal–Wallis test, Dunn's post hoc test with Holm correction, Pearson's chi-squared test, Fisher's exact test, and relative risk (RR) with a 95 % confidence interval (95 % CI).

The most frequently self-reported occupational risk factors included high work intensity (30.4 %), adverse microclimate (26.5 %), working overtime (19.6 %), and task monotony (17.6 %). A statistically significant association was found between lack of personal protective equipment (PPE) and an increased number of sick leave days (up to 30 days compared to 5 days with available PPE, $p < 0.05$), as well as between working overtime and decreased labor productivity ($p = 0.048$). Psychosocial risks such as stress and high workloads were more pronounced among employees with work records shorter than 18 years.

Established high prevalence of occupational and psychosocial risk factors among healthcare workers confirms the need to develop and implement targeted corporate health management programs. These measures should include risk monitoring, organizational interventions, and burnout prevention strategies, which may help reduce workforce losses and improve healthcare quality.

Keywords: *healthcare workers, occupational risks, psychosocial factors, working conditions, stress, presenteeism, temporary disability, burnout, personal protective equipment, corporate health.*

Specific work activities, work tasks and working conditions of healthcare workers involve exposure to several harmful occupational, psychosocial, and behavioral factors. They pose serious threats for healthcare workers' health, quality of life and occupational activities and stimulate development of occupational and chronic diseases [1].

Many studies have focused on combined effects produced by occupational and psychosocial risk factors on healthcare workers' health. High stress levels are a key factor able to produce significant negative influence; they are caused by intensive workloads, a large scope of various job tasks and high emotional responsibility typical for this occupational ac-

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tivity [2]. Patient expectations, demands to quality of healthcare services, and the necessity to react rapidly in an emergency create permanent nervous overstrain [3]. Several authors have reported that chronic stress can induce occupational burnout, which, in its turn, has a negative effect on job satisfaction and workers' health as well as increases a number of disability days and causes occupational stagnation [4, 5]. In healthcare organizations, occupational stress is a key factor determining low quality of healthcare services, growing numbers of medical errors and increasing financial losses [6].

Adverse working conditions are another significant factor; this includes long working hours, lack of resources and support, absence of proper conditions for rest, fatigue, work in night shifts, and work intensity [7, 8]. All this makes for mental and physical exhaustion thereby increasing risks of chronic noncommunicable diseases and results in low subjective health assessment [9, 10]. High work intensity, in its turn, induces elevated fatigability, irritability, and sleep disorders in healthcare workers [11, 12]. An analysis of effects produced by shift work on temporary disability using data on hospital visits revealed a positive correlation between work in evening shifts and an increase in duration of sick leaves [13].

At present, it is quite relevant to conduct studies aimed at investigating and assessing risk factors causing health deterioration in healthcare workers. Research results will give grounds for developing complex preventive activities, which, in its turn, will raise quality of life for people of this occupation.

The aim of this study was to conduct comparative analysis of occupational and psychosocial risk factors contributing to health deterioration among different categories of healthcare workers with emphasis on effects produced by this relationship on health state and lifestyle.

Materials and methods. A study was conducted at the Main Military Clinical Hospital of the National Guard of the Russian Federation. Prior to the research, consent was obtained from the head of the healthcare organization, all research goals and ways to use obtained research data were explained in detail, and confidentiality of participants' responses was ensured.

A study sample was created using a targeted strategy that covered healthcare workers with various medical specialties (therapeutic, surgical and diagnostic occupations). This ensured the internal structural representativeness of the analyzed occupational group.

The sample was made of 102 healthcare workers and determined by using ClinCalc.com statistical calculator at the following parameters: validity was 95 %, statistical power 80 %, expected prevalence of key no lower than 25 %, allowable error 8 %. This approach ensures sufficient sensitivity for revealing significant intergroup differences. The participants were included in the study provided they met the following criteria: work records not shorted than 1 year, fulltime job, and informed voluntary consent to participate. We excluded cases of incomplete questionnaires and absent data on an occupational profile. As a result, 102 questionnaires out of 111 collected ones were considered valid, which means the return rate was 91.9 %.

In this study, a 'risk factor' as a term means working conditions and psychosocial characteristics, which, according to literature and research data, are associated with elevated likelihood of reduced productivity and health deterioration [1, 3, 13]. In our study, their role was assessed through their association with temporary disability rates and levels of presenteeism; for quantification, we additionally calculated relative risks (RR) with 95 % confidence intervals.

A survey was conducted using a questionnaire for a healthcare worker developed by the National Health and Research Center of Preventive Healthcare of the Ministry of Health of the Russian Federation. It took place between December 21, 2021 and March 29, 2022.

The questionnaire included 90 questions in eight sections. The first 13 items were questions about workers' sociodemographic status,

health self-assessment, vaccine prevention, and identification of occupational exposures. Effects produced by occupational risks on productivity were estimated using levels of presenteeism and the number of disability days. Presenteeism refers to the lost productivity that occurs when employees are not fully functioning in the workplace because of an illness, exhaustion, or stress. In this study, presenteeism was assessed using the Stanford Presenteeism Scale (SPS-6) developed by C. Koopman et al. [14], which consists of six items (included in the next section in the questionnaire). The respondents assessed the offered statements using the 5-score Likert scale with the scores from 1 (Strongly Disagree) to 5 (Strongly Agree). The total score was calculated using the authors' method: lower scores indicated pronounced presenteeism (it means that respondents were able to concentrate and fulfill their job tasks, when being ill, complete the necessary work and avoid distracting factors). The number of temporary disability days was established based on participants' self-reports about the number of working days when they were absent at their workplaces due to illness during the previous year.

Psychosocial factors at workplace were assessed using a short version of the Dutch questionnaire CoPsoQ II [15]. High scores were positive for some indicators and negative for others. Indicators with high scores being negative included 'Quantitative Demands', "Work Pace, 'Emotional Demands, 'Work-Family Conflict', 'Burnout', and 'Stress'. Positive ones included 'Influence at Work', 'Possibilities for Development', 'Meaning of Work', 'Commitment to Workplace', 'Predictability', 'Job Rewards', 'Role-Clarity', 'Quality of Leadership', 'Social Support from Supervisors', 'Job Satisfaction', 'Trust in Management' and 'Justice'.

Statistical analysis was accomplished in Microsoft Excel 2010 and StatTech v. 1.2.0 licensed software (developed by Stattekh LLC, Russia) using descriptive statistics methods. Comparative analysis was conducted for indicators related to occupational and psychosocial risk factors, health self-assessment, and vaccine prevention depending on sociodemographic parameters (occupation and work records) and levels of presenteeism. Quantitative indicators were checked for normalcy using the Kolmogorov – Smirnov test. In case normalcy was absent, quantitative data were described using median (Me) and upper and lower quartiles (Q_1–Q_3). Two groups were compared per a quantitative indicator with its distribution being not normal using the Mann – Whitney U-test. Three or more groups were compared per a quantitative indicator with its distribution being not normal using the Kruskal – Wallis test; posterior comparisons were made using the Dunn's test with Holm's correction. Categorical data were described stating their absolute values and proportions. Proportions were compared in analysis of fourfold contingency tables using Pearson's chi-square (in case values of an expected event exceeded 10) or Fisher's exact test (in case values of an expected event were below 10).

All research stages were conducted in conformity with ethical standards. The research program was approved by the local ethics committee of the Sechenov University (First Moscow State Medical University) of the Ministry of Health of the Russian Federation, the meeting protocol No. 22-21 dated December 09, 2021.

Results and discussion. Overall, 102 healthcare workers participated in the study; of them, 56 were nurses and 46 were doctors. Women accounted for 65.7 % and men for 34.3 %. The participants were distributed as follows per their occupational profiles: therapeutic, 49 %; surgical, 31.4 %; diagnostic, 19.6 %. The average age of the participants was 41 years (interquartile range was 37–49); average work records, 18 years (13–25). On average, doctors were aged 42 years and nurses 40 years.

Special assessment of working conditions (SAWC) for healthcare workers is a mandatory procedure for establishing levels of harm and hazard at workplaces in healthcare organizations and in related occupations. It is conducted every five years according to the

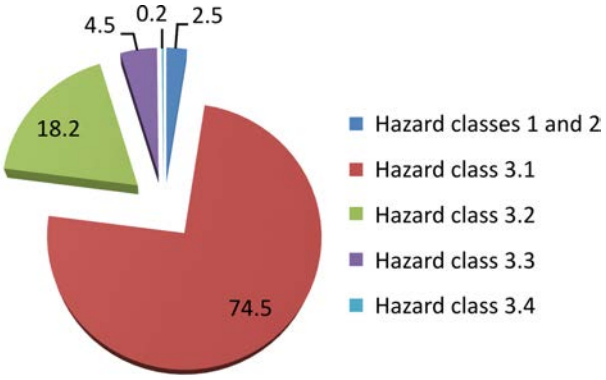

Figure 1. Proportions of healthcare workers per hazard classes of working conditions at their workplaces

Federal Law No. 426[1] [16]. According to the assessment results, the proportion of healthcare workers who were exposed to harmful and / or hazardous working conditions (hazard classes 3 and higher) amounted to 97.4 %. Hazard class 3.1 was the most frequent (74.5 %), followed by hazard class 3.2 (18.2 %) and 3.3 (4.5 %). Only 2.5 % of the health workers had permissible working conditions at their workplaces (hazard classes 1 and 2). Work hardness, work intensity, and exposure to chemical and biological factors were mentioned as main harmful occupational factors (Figure 1).

When rating their health, healthcare workers mentioned significant effects produced by some occupational risks. Exposure to permanent strain was mentioned most frequently and was detected in 30.4 % of the respondents (95 % CI: 22.3–39.9 %). Unfavorable microclimate was mentioned less frequently but also had a very pronounced effect on healthcare workers as it was mentioned by 26.5 % of them (95 % CI: 18.9–35.8 %). A significant contribution was also made by working overtime mentioned by 19.6 % of the respondents (95 % CI: 13.0–28.4 %). Monotony in occupational activities was an adverse factor for 17.6 % of the respondents (95 % CI: 11.5–26.2 %). Exposure to elevated noise levels and contacts with chemicals were deemed significant by 12.8 % of the respondents (95 % CI: 7.6–20.6 %). Uncomfortable workplace and forced working posture were mentioned less frequently, by 10.8 % (95 % CI: 6.1–18.3 %).

Physical loads and absence of personal protective equipment were mentioned the least frequently, by 7.9 % (95 % CI: 4.0–14.7 %) and 3.9 % (95 % CI: 1.5–9.7 %) of the respondents accordingly. And the lowest prevalence was identified for shift work and illuminance at workplace as they were mentioned by only 2.0 % of the respondents (95 % CI: 0.5–6.9 %).

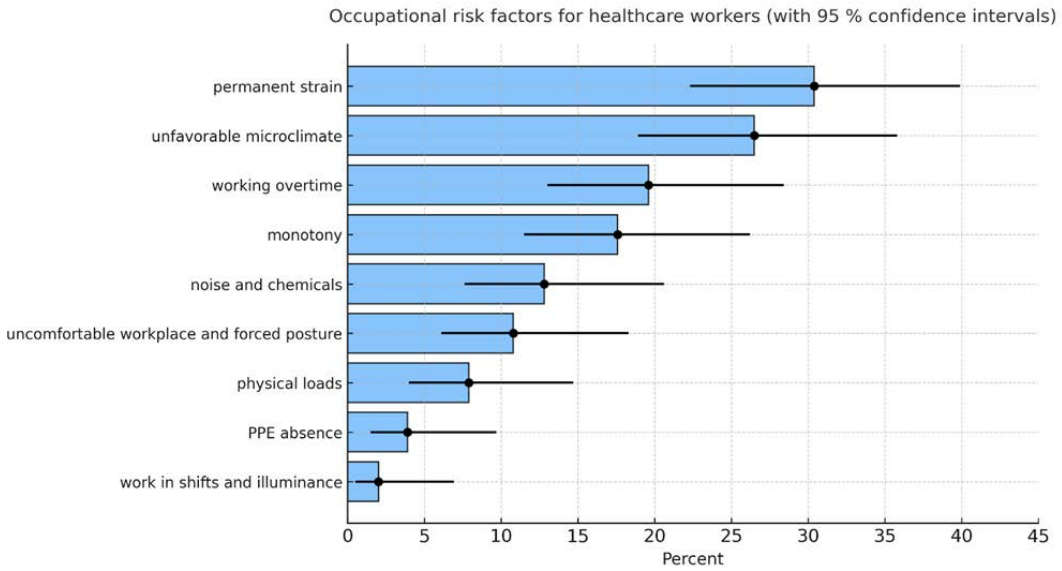

Figure 2. Prevalence of occupational health risk factors (according to healthcare workers' health self-assessment)

[1] O spetsial'noi otsenke uslovii truda: Federal'nyi zakon ot 28.12.2013 № 426-FZ [On Special Assessment of Working Conditions: Federal Law issued on December 28, 2013 No. 426-FZ]. *KonturNormativ*. Available at: https://normativ.kontur.ru/document?moduleId=1&documentId=455233 (May 12, 2025) (in Russian).

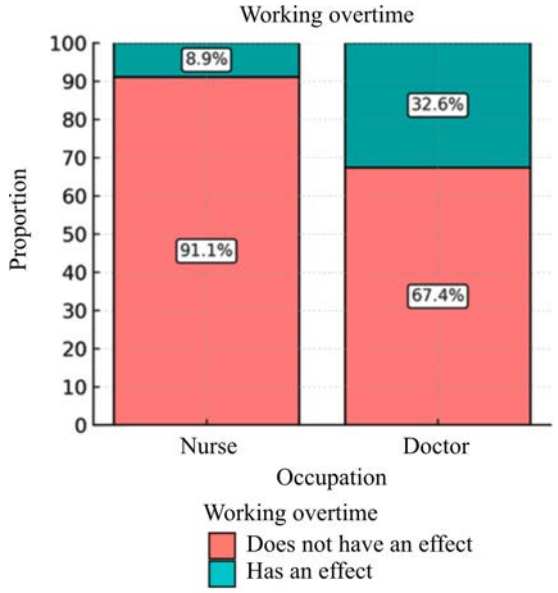

Figure 3. Effects produced by working overtime on health depending on occupation (p = 0.005)

Comparative analysis of occupational health risks depending on occupation found a significant difference for 'working overtime' (Figure 3). According to health self-assessment, adverse effects produced by working overtime on health were 4.94 times more prevalent among doctors against nurses (95 % CI: 1.63–14.92).

Table 1 provides the results obtained by comparative analysis of effects produced by occupational factors depending on productivity.

We analyzed the number of temporary disability days depending on occupational factors using the Mann – Whitney test; the analysis revealed significant differences for two factors, namely, absence of personal protective equipment (PPE) and working overtime.

Median number of temporary disability days equaled 30 among workers not provided with PPE against 5 days for those who had it (p = 0.026). These results indicate a pronounced relationship between absence of personal protective equipment and a risk of a long temporary disability period. Thus, relative risk of temporary disability lasting for longer than 14 days equaled 2.45 (95 % CI: 1.29–4.64) for workers not provided with PPE, which means more than twofold higher likelihood of an adverse health outcome for them against their counterparts colleagues provided with PPE.

In contrast, median number of temporary disability days turned out to be 0 among healthcare workers who worked overtime against 9 days among their colleagues who did not (p = 0.033). In threshold analysis, working overtime was associated with lower likelihood of a long temporary disability period: RR = 0.41 (95 % CI: 0.14–1.21). These results might reflect a so called effect of 'work loyalty' and affinity for rarer use of sick leaves among workers who often work overtime despite rather probable health issues. However, the confidence interval includes 1 and statistical significance is not confirmed.

The analysis results showed that considerable physical workloads at workplace were associated with a substantial increase in likelihood of a long temporary disability period. Thus, risk of absence at workplace for more than 14 days a year equaled 62 % of workers exposed to high physical loads whereas it was only 35 % among their colleagues without

Table 1

Comparative analysis of effects produced by occupational factors on temporary disability and levels of presenteeism in healthcare workers

Factor	Category	Disability days. *Me* / *Q1–Q3*	*p*	Presenteeism (score) *Me* / *Q1–Q3*	*p*
Working overtime	no effect	9 (0–20)	0.032	24 (20–27)	0.030
	influences	0 (0–9)		29 (23–30)	
PPE absence	no effect	5(0–15)	0.026	26 (21–29)	0.45
	influences	30 (24–30)		21 (20–24)	
Work in shifts	no effect	6 (0–15)	0.671	26 (21–29)	0.039
	influences	21 (10–32)		18	
Physical loads	no effect	6 (0–15)	0.198	26 (21–29)	0.136
	influences	22 (0–30)		**22 (**18–26)	

such exposure at their workplaces. Calculation of relative risk established that likelihood of a long temporary disability period grew upon exposure to physical loads (RR = 1.63; 95 % CI: 1.03–2.96).

We did not find any significant differences in the number of temporary disability days for any other occupational factor (noise, unfavorable microclimate, uncomfortable workplace, etc.) ($p > 0.1$).

Our analysis of effects produced by work in shifts on levels of presenteeism revealed significant differences between the groups (U = 15.0; $p = 0.040$). Median value per the SPS-6 scale turned out to be considerably lower in the subgroup of workers with shift work against their colleagues without it, which means an apparent decline in productivity in shift workers. Calculation of relative risk confirmed these results as likelihood of high presenteeism was more than 2.5 times higher in workers with shift work (RR = 2.56; 95 % CI: 2.01–3.28). These findings indicate that work in shifts is a significant psychosocial factor associated with implicit productivity losses.

Analysis of effects produced by working overtime on levels of presenteeism revealed significant intergroup differences as well. Median value per the SPS-6 scale turned out to be higher among workers who had to work overtime (29.0; CI: 23.5–30.0) against their colleagues who did not (24.5; CI: 20.0–27.0), which means less pronounced implicit productivity losses. Calculation of relative risk showed that likelihood of high presenteeism declined by approximately 35 % among workers who worked overtime (RR = 0.65; 95 % CI: 0.30–1.42). These findings may be interpreted as a descending trend in presenteeism in workers who have to work overtime.

We did not establish any significant differences in levels of presenteeism for any other occupational factor ($p > 0.1$), although an ascending trend was identified in presenteeism among workers exposed to chemicals at their workplaces (RR = 1.41; 95 % CI: 0.80–2.49).

Specific psychosocial factors were assessed using the CoPsoQ II questionnaire. Qualitative assessment relied on using the following scale: ‘low influence’, ‘alerting’, ‘high influence’ (Figure 4, 5).

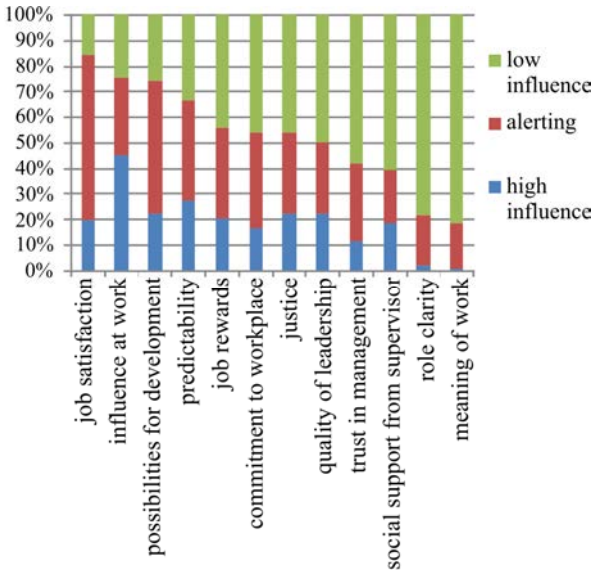

Figure 4. Prevalence of positive psychosocial risk factors among healthcare workers

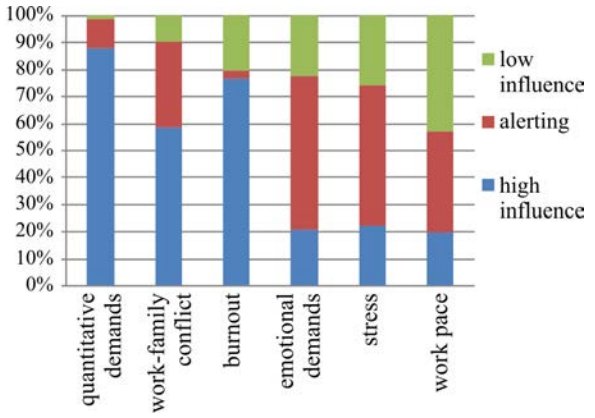

Figure 5. Prevalence of negative psychosocial risk factors among healthcare workers

According to the self-assessment results, most workers (75 %) described influence exerted by several psychosocial factors as low. This assessment was the most frequent per such scales as ‘Quantitative demands’, 88.2 %, and ‘Emotional burnout’, 76.5 %. ‘Alerting’ was fixed for a considerable proportion of the respondents as regards the following factors: ‘Job satisfaction’, 64.7 %; ‘Emotional demands’, 56.9 %; ‘Possibilities for development’, 52.0 %; as well as ‘Stress’, 52 %. At the same time, ‘high influence’ was the most frequently mentioned for such scales as ‘Meaning of work’, 81.4 %; ‘Role clarity’,

78.4 %; and 'Social support from supervisors', 60.8 %. High risk of job dissatisfaction was authentically more prevalent among nurses (91.1 %) than among doctors (76.1 %). Relative risk calculation confirmed the trend revealing a 1.2-time growth in it (95 % CI: 1.00–1.44) among nurses.

Our analysis revealed that unfavorable characteristics of psychosocial occupational environment were associated with higher likelihood of a long disability period (≥ 14 days a year). According to the results obtained by using the Kruskal – Wallis test, significant differences were established for 'Predictability' (H = 8.72; p = 0.0127). The proportion of long disability periods turned out to be considerably higher among workers with low job predictability. Odds ratio calculation confirmed the trend since risk of a disability period longer than 14 days was 1.6 times higher among workers with low job predictability (RR = 1.55; 95 % CI: 1.00–4.35). Moreover, job satisfaction turned out to have a protective effect on risk of a long disability period. Boundary significance of differences was established per the Kruskal – Wallis test (H = 5.76; p = 0.0563) and high job satisfaction was associated with a more than 50 % decline in this risk (RR = 0.44; 95 % CI: 0.18–1.10).

At the same time, complex assessment of labor potential losses requires considering not only disability events but also latent forms of declining work ability. In this respect, the subsequent analysis was aimed at investigating relationships between psychosocial factors and levels of presenteeism reflecting a decline in productivity while preserving working activity. As risk associated with quantitative demands grew, the total SPS-6 score declined, which indicated growing levels of presenteeism. When this risk was high, the median score equaled 19, which corresponded to high levels of presenteeism and decreased work efficiency (Table 3).

Analysis of 'Quantitative demands' showed significant intergroup differences in levels of presenteeism (p = 0.034). The median was 26 scores under low workloads (*Q1–Q3*: 22–29), which reflected relatively low latent productivity losses. When workloads were medium, the median went down to 20 scores (*Q1–Q3*: 19–24) and down to 19 scores when workloads were high (*Q1–Q3*: 19–19), which indicated an apparent growth in levels of presenteeism. At the same time, relative risk calculation did not reveal an authentic association between work intensity and likelihood of high levels of presenteeism (RR = 0.94; 95 % CI: 0.51–1.74).

Table 2

Analysis of effects produced by psychosocial factors on likelihood of a long disability period

Factor	Kruskal – Wallis test	p	Category	RR	95 % CI
Predictability	8.72	0.0127	Low influence	1.55	1.00–4.35
Job satisfaction	5.76	0.0563	High influence	0.44	0.18–1.10

Table 3

Effects produced by psychosocial occupational factors on levels of presenteeism among healthcare workers

Factor	Influence	Presenteeism, *Me* (*Q1–Q3*)	p	RR	95 % CI (bottom–top)
Quantitative demands	Low	26 (22–29)	0.034	0.94	0.51–1.74
	Medium	20 (19–24)			
	High	19 (19–19)			
Commitment to workplace	Low	27 (24–30)	0.010	1.87	1.12–3.13
	Medium	23 (20–26)			
	High	22 (20–27)			

At the same time, 'Commitment to workplace' showed an authentic effect (p = 0.010). Workers with low commitment had the median value per the SPS-6 scale equal to 27 scores (*Q1–Q3*: 24–30), which indicated more pronounced productivity losses. The scores were lower in sub-groups with medium and high commitment, 23 (*Q1–Q3*: 20–26) and 22 (*Q1–Q3*: 20–27) accordingly, which indicated weaker effects produced by presenteeism. Relative risk calculation confirmed this finding since low commitment was associated with almost twofold growth in likelihood of high presenteeism levels (RR = 1.87; 95 % CI: 1.12–3.13). Therefore, high commitment to workplace acts as a significant protective factor promoting preservation of labor productivity. These findings emphasize how important it is to find a proper balance between workloads and workers' motivation and values to preserve their work efficiency and to prevent functional exhaustion [17].

Comparative analysis revealed several psychosocial occupational factors associated with health self-assessment. 'Quantitative demands' had the highest statistical significance (H = 7.81; p = 0.0201). Likelihood of poor health self-assessment was 4.77 times higher among workers with high workloads (RR = 4.77; 95 % CI: 0.96–9.86) against their counterparts with low ones. The proportion of the respondents who had health issues amounted to 68.2 % in the group with 'high influence' against 14.3 % in the group with 'low influence'.

'Quality of leadership' showed boundary significance (H = 5.06; p = 0.0797) with a trend for elevated risk of poor health self-assessment in case quality of interactions with leadership was low: RR = 1.40 (95 % CI: 0.64–3.08), the risk equaled 40.0 % against 28.6 % accordingly.

Our study has confirmed high prevalence of occupational health risks among healthcare workers, which is consistent with data reported by Russian and foreign experts about unfavorable working conditions in healthcare. According to SAWC results, 97.4 % of healthcare workers were exposed to harmful and / hazardous working conditions with the prevailing hazard class 3.1. Similarity between SAWC data and workers' self-assessment indicates that an organization responsible for conducting SAWC is able to comprehend work intensity typical for healthcare including intellectual, sensory, and emotional demands as well as job peculiarities of healthcare workers [18–20].

Work hardness and intensity as well as chemical and biological exposures turned out to be the leading harmful factors. Absence of personal protective equipment (PPE) had considerable influence on healthcare workers' health: the median number of temporary disability days was 30 among workers without PPE against 5 days among their colleagues provided with it (p = 0.026). This finding is in line with conclusions made by I.V. Bukhtiyarov, who showed that contacts with infectious agents, violation of safety precautions and insufficient PPE provision were the key reasons of occupational diseases among healthcare workers [21].

Effects produced by working overtime turned out to be much more pronounced among doctors against nurses (32.6 % against 8.9 %; p = 0.005), which confirmed that workloads were uneven and required management interventions. Overtime work and work in shifts were associated with growing levels of presenteeism. Thus, the median SPS-6 score was 18 for those who worked in shifts against 24 among workers who did not (p = 0.039); it was 28 for those with regular overtime work against 24 for workers without it (p = 0.048), which reflected a trend for functional exhaustion [22].

Table 4

Comparative analysis of psychosocial occupational factors and their effects on health self-assessment among healthcare workers

Factor	Kruskal – Wallis test	p	RR	95 % CI	High influence, %	Low influence, %
Quantitative demands	7.81	0.0201	4.77	0.96–9.86	68.2	14.3
Quality of leadership	5.06	0.0797	1.40	0.64–3.08	40.0	28.6

Special attention should be paid to the following revealed paradox: working overtime was accompanied with a decline in disability duration but growing levels of presenteeism. This may reflect an effect produced by 'job loyalty' when workers were prone to stay at work despite feeling sick, which results in higher risks of chronic exhaustion in future. At the same time, workers with low commitment to workplace had the greatest number of temporary disability days (14 days; $p = 0.033$). This highlights the significance of internal motivation and mental strength for prevention of productivity losses [23, 24].

Organizational and personal characteristics occupied the leading place among psychosocial factors. 'Meaning of work' (81.4 %), 'Role clarity' (78.4 %) and 'Social support from supervisors' had the greatest positive effect. These findings emphasize the significance of corporate culture and positive atmosphere for strengthening human resources potential in healthcare organizations. On the contrary, unpredictability at workplace and insufficient job satisfaction were associated with growing risks of long disability periods.

Therefore, our findings confirm the necessity to perform comprehensive assessment of working conditions for healthcare workers considering not only physical, organizational and technical factors but psychosocial ones as well. Two trends have practical significance, namely, mitigation of objective occupational risks (PPE provision, optimal work schedules and working overtime) and creation of a favorable psychological environment (work with stress, developing loyalty to an organization, and personal growth trainings). Implementation of such activities in corporate programs, including online courses and counseling on anxiety and depression, can reduce presenteeism levels and morbidity rates as well as preserve human resources potential of a healthcare organization [25–27].

Conclusion. Our study has shown high prevalence of occupational and psychosocial risks among healthcare workers with a big proportion of them exposed to harmful working conditions. We have established significant relationships between some risk factors, including PPE absence, working overtime, or work in shifts, and duration of temporary disability and presenteeism.

Analysis of psychosocial factors has revealed that unpredictability at workplace authentically increases risk of a long disability period whereas high job satisfaction has an apparent protective effect. Commitment to workplace has turned out to be a significant factor influencing latent losses of work ability. At the same time, high meaning of work, role clarity at workplace and social support from supervisors are thought to be the key protective psychosocial resources as stated by the respondents.

Therefore, the study results confirm the necessity to perform comprehensive assessment of working conditions for healthcare workers that covers both objective occupational risks and psychosocial occupational factors. Such measures as providing healthcare workers with personal protective equipment, optimal work schedules and workloads, as well as creating corporate culture, which promotes and protects workers' motivation and values, have the greatest practical significance. Implementation of such approaches will reduce morbidity rates and levels of presenteeism, preserve human resources potential and make the healthcare system more stable.

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