

## Article

# The Importance of Monitoring the Psychological Wellbeing and Mental Health of Nursing Staff for Sustainable Management

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**Abstract:** This study examines the psychological wellbeing and mental health of nursing staff and determines workplace factors that affect them. Wellbeing and sustainable workload are important for the quality of work life. A cross-sectional study of employees in nursing was conducted at Slovenian hospitals. The response was 35%. The main findings were that more than half of employees are satisfied or very satisfied with their job and with their leaders' support, but they are often exposed to stress. Quality of work life, work–life balance, and managing stress at the workplace affect the psychological wellbeing and mental health of nursing staff. Management should identify the importance of monitoring and improving workplace factors that can affect the employees. At the same time, they should also be aware of the importance of sustainable development of nursing employees at the local and national levels to improve the working conditions and quality of work life for better psychological wellbeing and mental health for employees.

**Keywords:** sustainable workload; hospital; human resources; management



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## 1. Introduction

There are several work-related loads. Workplace burdens can be environmental, physiological, or psychological, or they can result from work techniques and psychosocial requirements [1]. At this time, the global pandemic is impacting population health, challenging and overwhelming the health system capacity, and adding even more pressure on the nursing staff globally [2].

The epidemic has affected the mental health of both healthcare workers and the entire population [3]. The working environment between pandemics and also post-pandemic surely brought negative consequences for individuals' socio-economic functioning and psychosocial states. The fear of COVID-19 significantly impacts anxiety and depression, but it does not impact job insecurity [4].

Nursing staff is the largest group among healthcare professions, and their sustainable growth is critical for the operation of institutions. Sustainability principles in nursing are multi-layered, including five components (organizational capability, financial feasibility, environmental and socio-cultural factors, and political commitment) [5]. One of the most important satisfaction factors in a hospital environment is the quality of life at work, while the quality of life as a mental health concept is one of the essential factors. Nursing staff are crucial in providing health services to patients; therefore, they should also enjoy a higher quality of life. Research findings range from poor [6] to average [7,8] and above-average [9] quality of life at work for nursing personnel.

Certain healthcare studies around the globe have defined factors of nursing work life that affect the wellbeing and quality of working life. Among the main factors that have a negative impact on quality and wellbeing are stress [10], excessive workload and lack of time [11–13], lack of social support [14,15], infectious disease exposure [16], exposure to violence or work-related threats [17], lack of sleep (shift work) [18], ambiguities and

conflicts in the workplace [19], lack of adequately trained staff [20,21], lack of career opportunities, work with terminally ill patients, facing death [22,23], lack of incentives [24], poor work organization [25], workplace relationships [26], poorly developed teamwork [27], work–life balance [28,29], and conflict between individual and organizational values [30]. Job dissatisfaction has impacted work-related quality of life, especially over the last two years [31]. The sustained pressure nurses have experienced during the pandemic negatively affects their mental and physical health. Nurses have reported moderate/high levels of moral distress and burnout. Symptoms ranged from mild to high rate of anxiety, depression, and insomnia [32]. Nurses reported moderate to high levels of moral distress and burnout. The symptoms included a high rate of anxiety, depression, insomnia [32]. Nurses felt as if they were overlooked and lacked support from organizations [33]. Those who worked in hospital COVID-19 units and nursing homes experienced a higher impact on their mental health [34]. Forty-seven percent of respondents were at risk for having posttraumatic stress disorder. Younger nurses are also not faring so well; they reported being exhausted and overwhelmed [34]. All of this has an impact on the physical and mental health of employees [35–38], lowering the quality of work and the quality of personal life [39] and resulting in turnover and cost increase at the institutional level [40,41]. A positive quality and safety culture minimizes emotional exhaustion in nursing staff [21]. The emotional health of nursing staff has been associated with events in healthcare. Workplace control and the idea that work is fairly organized can help reduce costs and disputes between work and family [42]. According to research conducted in Slovenian hospitals, nursing personnel in Slovenian hospitals have a medium level of job satisfaction [43–45] and psychological wellbeing [43,45,46]. A sense of control at work and the belief that work is organized fairly can help reduce costs and conflicts between work and family [42]. According to the research, only about half of nursing employees rate their work satisfaction as positive, and only about half of nursing employees rate their psychological wellbeing as positive [45,46]. A significant degree of stress was found among the nursing staff in Slovenian hospitals, which can be linked, among other things, to job discontent [11]. According to research conducted in Slovenian hospitals, a significant degree of stress can be ascribed, among other things, to dissatisfaction with work [11]. We have an evidence base on the pandemic impacting the personal aspects of staff members (stress, workload, infection risks, and concern about “moral injury”) and on the implications of the system responses (re-deployment, new responsibilities) [47].

The purpose of this paper is to examine psychological wellbeing and mental health of employees in nursing and to determine workplace factors that affect them.

## 2. Materials and Methods

### 2.1. Setting and Participants

Quantitative research based on a cross-sectional study was used. Five out of the eight invited hospitals from different parts of Slovenia participated in the research. To each participating hospital, 300 questionnaires were distributed. The questionnaires were distributed in the morning shift by the research coordinators in the participating hospitals. The maximum time for filling out the questionnaire was 30 days. The questionnaires were collected in special boxes to guarantee anonymity. In total, 1500 questionnaires were delivered to the participating hospitals, of which 521 were completed. The response rate was 35%. A total of 521 respondents participated in the study, of which 82.5% ( $n = 430$ ) were female and 17.5% ( $n = 91$ ) were male. The mean age of the participants was  $39 \pm 10.13$  years (95%, CI = 38–40) and the mean professional experience was  $16.2 \pm 11.7$  years (95%, CI = 15.2–17.3).

### 2.2. Data Collection

For the study, we used a questionnaire with closed-type questions. The first part included six demographic questions (gender, level of education, working years, etc.) followed by items from the Psychological Wellbeing Scale, General Health Questionnaire,

and Quality of Work Life Questionnaires. Psychological wellbeing was assessed using the Psychological Wellbeing Scale [48]. The questionnaire contains 54 items. Nine statements relate to each of the six dimensions of psychological wellbeing: self-acceptance (Cronbach's  $\alpha = 0.978$ ), positive relationships (Cronbach's  $\alpha = 0.951$ ), autonomy (Cronbach's  $\alpha = 0.969$ ), environmental mastery (Cronbach's  $\alpha = 0.957$ ), purpose of life (Cronbach's  $\alpha = 0.929$ ), and personal growth (Cronbach's  $\alpha = 0.919$ ). Items were rated on a six-point Likert scale. The scale points were 1 (completely disagree), 2 (slightly disagree), 3 (not disagree/not agree), 4 (slightly agree), and 5 (completely agree). A sum of the higher scores indicates a higher level of psychological wellbeing. The sum of the whole scale ranged from 54 to 270. Cronbach's alpha was 0.991.

The General Health Questionnaire (GHQ-12) [49] was used for assessing mental health. The questionnaire consists of 12 items, each considering the severity of a mental problem over the period of several weeks using a 4-point Likert-type scale (from 0 to 3). The total score (ranging from 0 to 36) was calculated. The positive items were adjusted from 0 (always) to 3 (never) and the negative ones from 3 (always) to 0 (never). Higher scores are indicative of negative mental health [39]. Cronbach's alpha value of the GHQ-12 was 0.81. The last part of the questionnaire presented questions made up of 24 items, following the Likert-type five-point answer format of 1 (Never), 2 (Rarely), 3 (Moderately), 4 (Frequently), and 5 (Always), and was distributed according to the eight dimensions (Fair and adequate compensation, Safety and health in working conditions, Opportunity for use and capacity development, Career opportunities and security, Social integration at work, Constitutionalism in the organization of work, Work and total living space, and Social relevance of life at work) of quality of work life assessment [50].

### 2.3. Statistical Analysis

A descriptive analysis was performed to assess the employees' psychological wellbeing, mental health, and quality of work life in nursing. The Kolmogorov–Smirnov test confirmed that scores for the studied variables were abnormally distributed ( $p < 0.001$ ). The differences between groups were compared with the Mann–Whitney U-test and the Kruskal–Wallis H-test. The Spearman correlation coefficient was used to establish possible correlations and regression analysis was used to determine the impact of studied independent variables on psychological wellbeing and mental health (dependent variables). A  $p$ -value of  $<0.05$  was considered statistically significant. Statistical analysis was performed with SPSS version 27.0 (IBM Corp, Armonk, NY, USA).

## 3. Results

Overall, 68.3% of participating nurses ( $n = 355$ , 95%, CI = 64.2–71.9) had no chronic disease, 21.9% ( $n = 114$ , 95%, CI = 18.5–25.6) reported one, and 9.8% ( $n = 51$ , 95%, CI = 7.3–12.5) reported two or more chronic diseases; 47.3% ( $n = 246$ , 95%, CI = 43.3–51.3) had two or more children, 20.4% ( $n = 106$ , 95%, CI = 16.9–23.8) had one, and 32.3% ( $n = 168$ , 95%, CI = 28.5–36.3) had no children; 73.3% ( $n = 381$ , 95%, CI = 69.4–76.7) were married and 3.8% ( $n = 20$ , 95%, CI = 2.3–5.6) were divorced; 9.8% ( $n = 51$ , 95%, CI = 7.3–12.3) were physically active at least five days per week, 27.1% ( $n = 141$ , 95%, CI = 23.1–31) were physically active three to four days per week, 31.7% ( $n = 165$ , 95%, CI = 27.9–35.8) were physically active one to two days per week, and 38.7% ( $n = 201$ , 95%, CI = 34.6–43.7) were not physically active.

Regarding work life, 55.8% ( $n = 290$ , 95%, CI = 51.3–59.8) of nurses are satisfied and 13.9% ( $n = 72$ , 95%, CI = 10.9–16.8) are very satisfied with their job; 52.3% ( $n = 272$ , 95%, CI = 48.1–56.3) are satisfied and 27.7% ( $n = 144$ , 95%, CI = 23.8–31.3) are very satisfied with their leaders' support; 28.9% ( $n = 150$ , 95%, CI = 24.9–32.3) are very often and 42.7% ( $n = 222$ , 95%, CI = 38.5–47.1) are often exposed to stress.

In Table 1 we can see that employees in nursing had positive psychological wellbeing (66% from total score). We found that on average, in all dimensions of the psychological wellbeing, the grade was more than 60%. The highest average value was in the dimension of personal growth (29.28 (70%)), followed by purpose in life (29.07 (69%)), environmental

mastery (28.55 (68%)), autonomy (27.80 (66%)), self-acceptance (26.93 (64%)), and positive relation (26.3 (63%)). On average, the quality of work life was assessed positively. We can also see that the highest average score from other studied variables corresponded to leaders' support (4.02 from 5), followed by life satisfaction (3.97) and physical health (3.83). The lowest two studied variables were work–life balance (2.69) and effective communication at the workplace (2.88).

**Table 1.** Descriptive statistics for workplace and employees' characteristics.

Variables	Min	Max	$\bar{x}$	s	95%, CI
Work–life balance	1	5	2.69	1.01	2.60–2.77
Leaders' support	1	5	4.02	0.79	3.96–4.09
Life satisfaction	1	5	3.97	0.76	3.90–4.04
Work satisfaction	1	5	3.72	0.87	3.65–3.81
Physical health	1	5	3.83	0.76	3.76–3.89
Managing stress	1	5	3.64	0.75	3.58–3.71
Teamwork	1	5	3.52	0.86	3.74–3.89
Effective communication at work	1	5	2.88	0.95	2.79–2.96
Wellbeing at the workplace	1	5	3.25	0.64	3.19–3.29
Psychological wellbeing, PWB	48	252	167.39	28.87	162.2–173.8
Mental health, GHQ	1	36	13.23	4.21	13.23–13.97
Quality of work life, QWL	1.6	5.3	3.05	0.78	3.00–3.09

All six dimension of psychological wellbeing are positively correlated with managing stress and negatively correlated with mental health. We can see that self-acceptance is positively correlated with life satisfaction, physical health, managing stress, quality of work life, and work–life balance. Positive relationships are positively correlated with physical health and managing stress, while autonomy is positively correlated with life satisfaction, physical health, managing stress, quality of work life, work–life balance, and work satisfaction. Environmental mastery is positively correlated with life satisfaction, managing stress, and quality of work life. Purpose in life is positively correlated with life satisfaction, physical health, managing stress, and quality of work life. Personal growth is positively correlated with life satisfaction, physical health, managing stress, quality of work life, and work satisfaction.

We were interested in which of the studied variables affect the psychological wellbeing of nursing staff. We found that through regression analysis (Table 2), we can explain 52.5% of the total variability of the psychological wellbeing of employees in nursing regarding quality of work life, mental health, life satisfaction, work satisfaction, managing stress, work–life balance, wellbeing at the workplace, and physical activity.

We were also interested in which of the studied variables affect the psychological wellbeing of nursing staff. Through regression analysis (Table 3), we can explain 33.5% of the total variability of nursing employees' mental health with quality of work life, psychological wellbeing, work–life balance, and wellbeing at the workplace. Through regression analysis, we found that work–life balance, managing stress, quality of work life, and wellbeing at the workplace have an impact on psychological wellbeing and mental health of employees in nursing.

**Table 2.** Results of the regression analysis for psychological wellbeing.

		<i>B</i>	Std. Error	$\beta$	<i>t</i>	<i>p</i>
$R^2 = 0.525$	Quality of work life	0.966	0.268	0.153	3.602	<0.001
	Mental health	0.566	0.233	0.099	2.428	0.016
	Work–life balance	0.457	1.038	0.010	2.148	0.025
	Leaders’ support	0.735	1.024	0.030	0.717	0.473
	Life satisfaction	1.160	0.333	0.140	3.479	<0.001
	Work satisfaction	3.327	1.350	0.115	2.463	0.014
	Physical health	0.667	1.604	0.020	0.416	0.678
	Managing stress	3.853	1.455	0.116	2.648	0.008
	Teamwork	1.002	1.221	0.034	0.821	0.412
	Effective communication	1.409	1.086	0.053	1.298	0.195
	Wellbeing at the workplace	4.527	1.863	0.113	2.430	0.015
	Physical activity	10.023	1.110	0.373	9.033	<0.001

Legend:  $R^2$ —coefficient of determination; *B*—unstandardized regression coefficient; Std. Error—standard error;  $\beta$ —standardized regression coefficient; *t*—value of *t*-statistic; *p*—value of significance.

**Table 3.** Results of the regression analysis for mental health.

		<i>B</i>	Std. Error	$\beta$	<i>t</i>	<i>p</i>
$R^2 = 0.335$	Quality of work life	1.021	0.423	0.116	2.416	0.016
	Psychological wellbeing	0.024	0.009	0.138	2.761	0.016
	Work–life balance	0.712	0.009	0.138	0.761	0.006
	Leaders’ support	0.280	0.284	0.051	0.986	0.324
	Life satisfaction	0.142	0.313	0.025	0.454	0.650
	Work satisfaction	0.217	0.261	0.043	0.833	0.405
	Physical health	0.483	0.308	0.084	1.569	0.117
	Managing stress	0.893	0.282	0.116	2.131	0.028
	Teamwork	0.163	0.235	0.032	0.693	0.489
	Effective communication	0.167	0.209	0.036	0.800	0.424
	Wellbeing at the workplace	1.198	0.356	0.171	3.364	<0.001
	Physical activity	0.115	0.231	0.025	0.497	0.619

Legend:  $R^2$ —coefficient of determination; *B*—unstandardized regression coefficient; Std. Error—standard error;  $\beta$ —standardized regression coefficient; *t*—value of *t*-statistic; *p*—value of significance.

We did not find significant differences in psychological wellbeing ( $Z = -0.578, p = 0.102$ ), quality of work life ( $Z = -0.712, p = 0.651$ ), or mental health ( $Z = 0.422, p = 0.654$ ) between men and women. In contrast, we found significant differences in wellbeing at the workplace ( $Z = 2.015, p = 0.023$ ) between genders. In relation to marital status, we found significant differences in psychological wellbeing ( $\chi^2(2) = 5.563, p = 0.004$ ) and wellbeing at the workplace ( $\chi^2(2) = 6.095, p = 0.002$ ). Between the different levels of employees’ work satisfaction, we found significant differences in psychological wellbeing ( $\chi^2(2) = 4.793, p < 0.001$ ), quality of work life ( $\chi^2(2) = 10.741, p < 0.001$ ), wellbeing at the workplace ( $\chi^2(2) = 16.495, p < 0.001$ ), and mental health ( $\chi^2(2) = 3.0333, p = 0.010$ ). We also found significant differences in psychological wellbeing ( $\chi^2(2) = 34.163, p < 0.001$ ), quality of work life ( $\chi^2(2) = 4.611, p < 0.001$ ), wellbeing at the workplace ( $\chi^2(2) = 6.280, p < 0.001$ ), and mental health ( $\chi^2(2) = 2.738, p < 0.028$ ) depending on the frequency of physical activity. According to the level of work–life balance, we found significant differences in wellbeing at the workplace ( $\chi^2(2) = 13.180, p < 0.001$ ), mental health ( $\chi^2(2) = 4.323, p = 0.002$ ), and quality of work life ( $\chi^2(2) = 7.652, p < 0.001$ ). We also found significant differences in wellbeing at the workplace ( $\chi^2(2) = 24.924, p < 0.001$ ) and quality of work life ( $\chi^2(2) = 13.067, p < 0.001$ ) according to the different levels of leaders’ support. According to managing stress, we found significant differences in wellbeing at the workplace ( $\chi^2(2) = 4.100, p = 0.001$ ), mental health ( $\chi^2(2) = 3.208, p = 0.007$ ), psychological wellbeing ( $\chi^2(2) = 8.462, p < 0.001$ ), and quality of work life ( $\chi^2(2) = 4.164, p = 0.001$ ).



According to exposure to stress, were found statistical differences only in wellbeing at the workplace ( $\chi^{2(2)} = 5.217, p < 0.001$ ) and psychological wellbeing ( $\chi^{2(2)} = 7.065, p < 0.001$ ).

#### 4. Discussion

According to the study, more than half of respondents ranked their psychological wellbeing as good or very good. The results of the psychological wellbeing of nursing staff in Slovenian hospitals are encouraging, since a large proportion rated their psychological wellbeing as good or very good. In addition, the average rating of psychological wellbeing compared to the results of a national study conducted a few years ago was also high [44]. Furthermore, compared with the results from the rapid review, our results are much better, suggesting that nurses may be at a higher risk for adverse mental health outcomes during the pandemic [51]. The findings that nearly two-thirds of participating employees in nursing are satisfied and very satisfied with the leaders' support are also positive. However, the data suggest that about three quarters are frequently or very frequently exposed to stress; these numbers have increased compared to the results of a national study five years ago [11]. These results are in line with the results from the meta-analysis which found that aggregate prevalence of stress was 43% among nurses during the COVID-19 outbreak and suggested that at least one-third of nurses have experienced stress [52]. The findings reflect the need for nursing management and policymakers to develop measures and strategies to ensure appropriate staffing, effective organization, and a supportive work environment [11]. Nurses presented a high degree of satisfaction in the performance of their functions during the pandemic [53].

Although over half of participants reported experiencing stress regularly or frequently, and a quarter reported experiencing it very frequently, participants perceive their workplace wellbeing as positive. This can support the well-known fact that wellbeing at the workplace should not be measured from a single aspect [54], but it is vital to consider the relations between multiple dimensions of workplace wellbeing. It follows from the above that, regardless of the large number of dimensions involved and the factors included in the research, there is a need for further monitoring and research.

A limited nurse workforce has been reported as a barrier and has been a critical feature of many systems during the pandemic [51]. Psychological wellbeing was studied through six dimensions: personal growth, purpose in life, autonomy, positive relationships, environmental mastery, and self-acceptance, from which personal growth and purpose in life were the assessed the highest. We support the concept described by Rojo [55], who explained personal growth through purpose in life, person-centered care, burnout self-realization, personhood, management, and resilience.

On average, quality of work life was assessed highly positively. The social relevance of life at work, safety and health in working conditions, constitutionalism in the organization of work, and fair and adequate compensation are dimensions that achieved satisfaction levels of three or more out of five. Of note, the lowest satisfaction level corresponded to opportunity to use and develop human capabilities, which is contrary to the research [56] in which this dimension, together with constitutionalism in the organization and social integration in the organization, achieved a good level of satisfaction.

The research showed that leaders' support, quality of work life, work satisfaction, work-life balance, and managing stress affect employees' psychological wellbeing and mental health in nursing. According to recent research, managers should demonstrate strong leadership skills, problem-solving skills, and a strong sense of resolving inconsistencies to prevent stress from negatively affecting wellbeing at work [11,57–59]. Our results show that with psychological wellbeing, together with quality of work life, work-life balance, and managing stress, we can explain one-third of the variance of the mental health of employees in nursing. These results are comparable with the result of the rapid review where findings showed evidence that occupational and environmental factors at the workplace level played a key role in mental health outcomes [51]. Monitoring for psychological wellbeing and mental health is important because both strongly impact employees' general health.

Psychological wellbeing relates to the quality of work life, mental health, life satisfaction, work satisfaction, managing stress, wellbeing at the workplace, work–life balance, and physical activity. There are no differences in psychological wellbeing, quality of work life, and mental health between gender and level of education. The literature [60] indicates that workplace and broader health system reforms are required to improve the quality of work life and the wellbeing of employees in nursing.

Through the results, management can recognize the importance of taking care of the work environment, being a good organizer, being flexible, offering psychological support, and monitoring the psychological wellbeing of employees. For employees in nursing to be less exposed to stress and not overwhelmed, it is important to recruit a higher number of “suitably qualified” nursing staff for designated nursing jobs. International recruitment is becoming more and more popular and represents an immediate solution to staff shortages in nursing. Quick policy responses are required to increase nurse supply. To implement changes in practice, we are trying to increase the number of sustainability qualified applications for designated nurse jobs, international recruitment, and emergency policy response. We should deploy psychosocial support, specifically for healthcare and frontline workers in Slovenian hospitals.

Nonetheless, the study has its limitations. Firstly, the survey’s timing may limit the generalization to all nurses and working in other fields and during different periods. The cross-sectional design provided information at a single point in time only. To ensure the generalizability of the results, we recommend that further studies be conducted with different, larger sample groups in all healthcare institutions. Further research and monitoring of psychological wellbeing and mental health is required to determine how to maintain healthcare professionals’ health and wellbeing. These levels indicate the need to address healthcare management and policy to maintain the health and wellbeing of healthcare professionals.

## 5. Conclusions

These findings create grounds for practical interventions that aim to increase nurses’ psychological wellbeing and health and emphasize key factors affecting the greater susceptibility for a negative psychological response at the workplace. Considering that a decline in mental health is preventable, current and future nurses must be made aware of poor mental health because of the physically and psychologically significant effects those factors have.

Nurses’ psychological support is essential to preserving their health and wellbeing in the short and long term, mainly when emotional exhaustion and occupational stress levels are high. Ensuring psychological wellbeing requires a response with different approaches, strategies, and techniques for prevention and recognition at different levels, from organizational and team support to self-care at an individual level. This study can provide some suggestions for means to take care of healthcare employees.

Our findings support that building soft skills among leaders and managers and strengthening healthcare’s positive intrapersonal resources may be promising core strategies for a healthy and sustainable work environment. Furthermore, the results add essential knowledge to the methods managers may employ to ensure a healthy work environment, improve the support of healthcare that employees receive in hospitals, and ultimately, prevent burnout.

Effective workplace wellness practices can help employees create a work environment that reduces stress and improves quality of work environments with integrated day-to-day working habits.

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