Research

The Influence of the Clinical Context on nursing organizational well-being: A Cross-sectional study

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Abstract

Introduction. A healthcare organization that promotes the well-being of its nurses ensures better quality and safety for patients. Studies have focused on investigating nurses' experiences without examining the differences related to specific clinical contexts in determining their organizational well-being. This study aims to identify which variables in specific nursing clinical contexts are associated with their reported organizational well-being.

Methods. A descriptive cross-sectional study was conducted using the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) checklist. A convenience sample of nurses from different departments (e.g., medicine, surgery, emergency room) was recruited in different hospital settings across Italy. Data were collected through a web survey comprising validated instruments that investigated organizational well-being and associated variables (e.g., work-home conflicts, relationships, resources). Descriptive and inferential analyses were conducted.

Results. The study included 272 nurses. In medical departments, organizational well-being was associated with nurses' relationships with physicians ($r = 0.35$, $p < 0.001$), colleagues ($r = 0.32$, $p < 0.01$), and head nurse ($r = 0.23$, $p < 0.05$), available resources ($r = 0.46$, $p < 0.001$), workload ($r = -0.23$, $p < 0.05$), and work-home conflicts ($r = -0.49$, $p < 0.001$). In surgical departments, it was associated with available resources ($r = 0.36$, $p < 0.01$), relationships with the head nurse ($r = 0.47$, $p < 0.001$), and work-home conflicts ($r = -0.29$, $p < 0.01$). In emergency departments, it was associated with nurses' relationships with physicians ($r = 0.24$, $p < 0.05$) and head nurses ($r = 0.29$, $p < 0.01$), available resources ($r = 0.42$, $p < 0.001$), workload ($r = -0.25$, $p < 0.01$), and work-home conflicts ($r = -0.38$, $p < 0.001$). The mean scores for workload and relationships with the head nurse differed among the considered departments.

Discussion. The results underlined differences in organizational

well-being perception depending on the clinical context. Relationships with physicians and colleagues were only associated with nurses' well-being in specific clinical settings. In contrast, work-family conflicts, availability of resources, and relationships with the head nurse were common clinical context variables influencing the organizational well-being perceived by nurses. This study adds to the existing literature by highlighting how different clinical environments shape nurses' organizational well-being, emphasizing the need for tailored organizational interventions to address context-specific challenges.

Introduction

Healthcare organizations face challenges in ensuring a healthy work environment for their employees amid continuous organizational changes[1]. Despite this necessity, the well-being of employees in healthcare organizations is still an understudied construct that needs further exploration[1].

The International Labour Organization defines workplace well-being as "all the aspects of working life that include the safety of the physical environment, the perception of daily work activities, the consideration of the work environment, the climate, and the organization surrounding employees[2]". In recent years, in the nursing field the organizational well-being has been studied with patient and organizational outcomes[3]. Several studies has shown that low organizational well-being leads to reduced productivity,[4] lower performance,[5] increased absenteeism,[6] and counterproductive behaviours[7]. On the contrary, employees with high organizational well-being exhibit greater engagement and commitment, enhancing work performance[3]. Therefore, fully understanding the organizational context variables will help comprehend the dynamics to improve patient outcomes, organizational performance, and nurses' well-being[3].

Various aspects of nurses' organizational well-being have been studied[3]. Specifically, all healthcare environments require interaction with different professional figures; hence, it is essential to consider the sphere of social relationships among nurse colleagues,[8] between nurses and superiors (head nurse, nurse managers),[9] between nurses and other healthcare professionals,[10] and the differences in these relationships across various care settings required by patients' clinical conditions[11,12].

The evaluation of nurses' organizational well-being should also consider conflicts between work and personal life, a major issue for nursing staff globally that impacts their physical and mental health[13]. In personal and professional life, individuals assume different roles, (e.g. nurse, spouse and parent) which inevitably impact their time and energy and, in some cases, affect their work productivity[13]. Positive work environments help balance personal and professional responsibilities, reducing work-home conflicts. While many studies have examined this variable, it has not been considered a characteristic of work environments that can influence nurses' organizational well-being, nor have differences between clinical contexts been explored[13].

Evaluating organizational well-being in nursing is challenging due to the diverse settings in which nurses work[11,12,14]. For example, some workplace variables, such as workload, may be more influential in environments such as emergency departments,[11] or the emotional load required by the particular relationships established in psychiatry with patients can lead nurses to organizational distress[15].

The existing literature does not investigate the differences between the various departments when discussing well-being[11,14,15]. Multiple authors have focused on specific clinical settings such as emergency department,[11] psychiatry[15] or surgeries[14] and have yet to study the differences that the clinical context can bring to nurses' organizational well-being. For example, the relationship with superiors in surgical settings is crucial in determining their well-being[14].

Patient demands vary according to their

clinical instability, condition, and the technical skills required to assist them in each department, just as the resources each department has at its disposal for their care .

Recent studies have highlighted the need to explore the differences in organizational well-being depending on the care setting[11,12]. Researchers must consider specific aspects of clinical-care contexts and the absence of a defined theoretical framework guiding this research[3,16].

Finally, the study aims to investigate differences in organizational well-being across various clinical settings by identifying its key determinants for each context considered. It also aims to examine whether there are differences in these determinants of nurses' organizational well-being across the different departments studied.

Materials and Methods

A descriptive cross-sectional study was conducted to investigate workplace variables that could explain the organizational well-being reported by nurses. The STROBE checklist was used to conduct and report this study[17].

Sampling

The study was conducted in various hospitals across Italy. A convenience sample of nurses who provided direct patient care for at least six months in medical, surgical, and emergency departments was recruited. Nurses working any shift and on any type of contract (full-time/part-time) were included. Head nurses, nurse managers, and nurses with less than six months of service in the clinical setting were excluded from recruitment.

Data collection

A web survey was shared online between January and June 2023 using social media. The first section provides information about the study's purpose and includes a request for informed consent from participants. The collected data was entered into an Excel worksheet, then extracted, coded, and compiled into an electronic dataset for statistical analysis.

Ethics and Dissemination

Data collection and analysis were performed in an aggregate and pseudonymized manner, in accordance with current national and international regulations [18,19]. The study was conducted according to the Declaration of Helsinki[20]. No sensitive or identifiable information was obtained from the nurses who voluntarily and anonymously participated in the study. Before the survey, respondents confirmed reading the study summary, including the aims, modality of data collection, and relative topology. Moreover, it was specified that the findings will be presented in aggregate form and cannot be directly attributed to the subjects involved in the study.

Instrument description

A web survey was constructed based on a recent literature review[3]. The following scales were employed for data collection after obtaining the authors' permission:

- **Organizational Well-being (OW)** was measured using a single item where participants, using a 10-point Likert scale (from 0 poor organizational well-being to 10 excellent organizational well-being), could indicate their perceived level of organizational well-being within their company[21].
- Nursing work index for the evaluation of the collaboration between physicians and nurses (NPR), consisting of 3 items (e.g., "Physicians and nurses have good working relationships") with good reliability (Cronbach's α = 0.71), and the evaluation of staffing and resource adequacy (RESOURCE), consisting of 5 items (e.g., "Enough registered nurses on staff to provide quality patient/client/resident care") with excellent reliability (Cronbach's α = 0.83)[22].
- **Nursing Organizational Health Questionnaire (QISO)** for the evaluation of the perception of colleagues (PEER), consisting of 4 items (e.g., "Colleagues listen to each other and try to meet each other's needs") with good reliability (Cronbach's α = 0.73), and for the evaluation of the perception of head nurses (HNR), consisting of 6 items (e.g., "The head nurse involves nurses in work decisions") with good reliability (Cronbach's α = 0.88)[23]. In the study, the reliability of the two scales was 0.85 and 0.71, respectively.
- **Quantitative Workload Inventory (QWI)** for measuring workload (WL), consisting of 4 items (e.g., "How often does your job require you to work very fast?") that have proven very reliable over time (Cronbach's α = 0.83)[24]. In the study conducted, the reliability was 0.78.
- **Work-Family Conflict Scale (WFC)** consisting of 5 items (e.g., "Due to work-related duties, I have to make changes to my plans for family activities") reliable in detecting potential

conflicts between work and personal life (Cronbach's α = 0.86)[25]. In the study, the reliability was 0.71.

Participants responded to the web survey using a 4-point Likert scale (from 1 "never" to 4 "always"). A section of the survey was dedicated to collecting the socio-demographic and work characteristics of the sample (e.g., gender, age, department, total years of work as a nurse, years of work in the current company, number of nurses on duty, and patients in the last shift).

Statistical analyses

All statistical analyses were conducted using the Statistical Package for Social Science 25.0 software (SPSS)[26]. Descriptive statistical analyses (mean M, standard deviation SD, range, absolute frequency N, and percentage %) were conducted on the entire sample, socio-demographic variables, and items. Statistical significance was set at $p < 0.05$[27]. The reliability of each scale used was verified by calculating Cronbach's alpha (α), considering an acceptable value of α > 0.70[27]. To verify the correlation index between the variables investigated and the control item for evaluating nurses' organizational well-being, Pearson's r correlation test was performed. Correlation tests were performed on individual departments to control for the clinical setting as a potential confounding factor. Finally, to observe the differences between the average levels of proposed variables in the different departments analyzed, an ANOVA with Tukey's post hoc test was conducted.

Results

Characteristics of the sample

As shown in Table 1, the study enrolled 272 nurses, predominantly female (N = 184, 67.5%), with an average age of 38.94 years (SD = 10.26). Most of the sample holds a bachelor's degree (N = 211, 77.6%). Most of the nurses work in emergency departments (N = 111, 40.8%), followed by those in medical wards (N = 96, 35.3%) and surgical departments (N = 65, 23.9%).

Table 1: Sociodemographic Characteristics

	Total (N = 272) Mean (SD)	Medical (N = 96) Mean (SD)	Surgical (N = 65) Mean (SD)	Emergency (N = 111) Mean (SD)
Age	38.94 (10.26)	39.73 (11.00)	41.49 (10.48)	36.76 (9.06)
Working years	14.10 (10.28)	15.18 (11.06)	17.08 (10.69)	11.42 (8.65)
Working years in last organization	9.39 (9.97)	10.24 (10.29)	12.23 (11.56)	6.93 (8.01)
Nurse for shift	5.27 (4.25)	3.98 (2.36)	3.64 (3.46)	7.21 (5.04)
Patient cared for during a shift	25.09 (37.25)	16.43 (17.53)	7.61 (8.89)	42.83 (3.76)

Descriptive statistics of variables under study

As shown in Table 2, we found that the score for organizational well-being (OW) averages 5.07 for the entire sample (SD = 2.13), with some differences among wards (e.g., Surgical M = 4.78, SD = 2.13). Nurse-physician relations (NPR) scored above average at 2.71 (SD = 0.62), as did peer relations (PEER) with other nurses (M = 2.81, SD = 0.57). The availability of resources (RESOURCE) scored 2.02 on average (SD = 0.59).

Relations with head nurses (HNR) were generally average (M = 2.39, SD = 0.64), with higher-than-average scores in medical wards (M = 2.59, SD = 0.66). Workload (WL) was generally reported as above average (M = 3.20, SD = 0.64), with a significant increase in the emergency area (M = 3.38, SD = 0.54). Work-family conflict (WFC) was reported to be average across all wards (M = 2.31, SD = 0.63).

Table 2: Descriptive statistics of the included variables.

	Total (N = 272) Mean (SD)	Medical (N = 96) Mean (SD)	Surgical (N = 65) Mean (SD)	Emergency (N = 111) Mean (SD)
OW	5.07 (2.13)	5.28 (2.26)	4.78 (2.13)	5.05 (2.01)
NPR	2.71 (0.62)	2.77 (0.66)	2.67 (0.68)	2.69 (0.56)
RESOURCE	2.02 (0.59)	2.12 (0.60)	1.93 (0.61)	1.97 (0.57)
PEER	2.81 (0.57)	2.84 (0.59)	2.80 (0.60)	2.80 (0.54)
HNR	2.39 (0.64)	2.59 (0.66)	2.30 (0.62)	2.28 (0.61)
WL	3.20 (0.64)	3.09 (0.67)	3.05 (0.61)	3.38 (0.54)
WFC	2.31 (0.63)	2.31 (0.70)	2.22 (0.58)	2.37 (0.58)

Legend: OW = Organizational well-being; NPR = Nurse-physician relations; RESOURCE = availability of resources; PEER = Peer relations; HNR = Head nurse relations; WL = Workload; WFC =Work family conflict.

Pearson's correlation between organizational well-being and the variables under study

As shown in Table 3, the correlation analysis revealed that nurse-physician relations positively associated with organizational well-being for the entire sample (r = 0.27, p < 0.001), in medical settings (r = 0.35, p < 0.001), and in emergency settings (r = 0.24, p < 0.05). Availability of resources also was positively associated with organizational well-being for the entire sample (r = 0.43, p < 0.001) and across all three wards. Peer relations positively correlated with organizational well-being for the whole sample (r = 0.22, p < 0.001) and in medical wards (r = 0.32, p < 0.01). Head nurse relations were positively associated with organizational well-being both overall (r = 0.31, p < 0.01) and in medical (r = 0.31, p < 0.001), surgical (r = 0.47, p < 0.001), and emergency departments (r = 0.29, p < 0.01). Workload showed a negative correlation with organizational well-being for the entire sample (r = -0.20, p < 0.01), as well as for nurses in medical (r = -0.23, p < 0.05) and emergency areas (r = -0.25, p < 0.01). Finally, work-family conflict was negatively associated with organizational well-being for the entire sample (r = -0.40, p < 0.01), in medical wards (r = -0.49, p < 0.001), surgical wards (r = -0.29, p < 0.05), and emergency departments (r = -0.38, p < 0.001).

Table 3. Pearson's correlation (r) between organizational well-being and included variables

	Total	Medical	Surgical	Emergency
NPR	0.27***	0.35***	0.19	0.24*
RESOURCE	0.43***	0.46***	0.36**	0.42***
PEER	0.22***	0.32**	0.14	0.17
HNR	0.31***	0.23*	0.47***	0.29**
WL	-0.20**	-0.23*	-0.10	-0.25**
WFC	-0.40**	-0.49***	-0.29*	-0.38***

Legend: NPR = Nurse-physician relations; RESOURCE = availability of resources; PEER = Peer relations; HNR = Head nurse relations; WL = Workload; WFC = Work-family conflict.
Note *=p < 0.05; **= p < 0.01; ***= p < 0.001

ANOVA with Tukey' Post Hoc

The ANOVA results (Table 4) showed a statistically significant difference in the workloads reported by emergency nurses (M = 3.38, SD = 0.54) compared to their colleagues in medical (M = 3.09, SD = 0.67) and surgical wards (M = 3.05, SD = 0.61). Additionally, a statistically significant difference was found in the mean perception of head nurse relations in the surgical wards (M = 2.39, SD = 0.81) compared to the medical wards (M = 2.85, SD = 0.85) and emergency departments (M = 2.41, SD = 0.72).

Table 4. Difference in the means of the variables considered concerning the clinical setting (ANOVA)

	N (%)	NPR Mean (SD)	RESOURCE Mean (SD)	PEER Mean (SD)	HNR Mean (SD)	WL Mean (SD)	WFC Mean (SD)
Medicine	96 (35.3 %)	2.77 (0.66)a	2.12 (0.60)a	2.84 (0.59)a	2.85 (0.85)a	3.09 (0.67)a	2.31 (0.70)a
Surgical	65 (23.9 %)	2.67 (0.68)a	1.93 (0.61)a	2.80 (0.60)a	2.39 (0.81)b	3.05 (0.61)a	2.22 (0.58)a
Emergency	111 (40.8 %)	2.69 (0.56)a	1.97 (0.57)a	2.80 (0.54)a	2.41 (0.72)b	3.38 (0.54)b	2.37 (0.58)a
p		*0.58*	*0.08*	*0.86*	*< 0.001*	*< 0.001*	*0.31*

Legend: NPR = Nurse-physician relations; RESOURCE = availability of resources; PEER = Peer relations; HNR = Head nurse relations; WL = Workload; WFC = Work family conflict;
Different apex letters correspond to significantly different means between clinical areas (Tukey's posthoc).

Discussion

This study primarily aimed to assess whether work environment characteristics are related to nurses' organizational well-being. Generally, the results indicate that the variables under study are associated with the organizational well-being reported by nurses. Specifically, nurses who establish good social relationships with physicians, head nurses, and colleagues and who emotionally, physically, and psychologically balance their work and personal lives report higher levels of organizational well-being. Conversely, in settings with ineffective communication, inadequate resources, excessive workloads, and work-life imbalance, nurses experience organizational malaise[28]. This result is not surprising. Keller et al.[29] also found significant correlations between nurses' perceived well-being and workplace relationships, confirming the importance of analyzing this aspect. According to reference models, inadequate resources and high workloads are associated with low well-being among nurses, increasing the risk of physical and mental health problems or burnout[8]. Moreover, conflicts between work and personal life significantly affect organizational well-being across all departments. Consistent with previous research,[13] high work-home conflicts correlate with lower organizational well-being. This underscores the need for healthcare management to address work-family conflicts to ensure higher organizational well-being among nurses and improve patient care quality and safety.

In the study, the characteristics of the work environment relate differently to nurses' well-being. Nurse-physician relationships, resource availability, and relationships with colleagues and head nurses are positively associated with organizational well-being in medical wards. In contrast, workloads and work-home conflicts negatively affect staff well-being. This is not surprising; care dynamics, organizational climate, and culture in medical wards differ from those in surgical and emergency departments, partly due to patient and condition specificities[30]. The fact that lower availability of resources and work-home conflicts can explain the variability in organizational well-being reported by nurses, although consistent with the literature,[8] is expected given their pervasiveness across all work environments. As such, it is not surprising that no statistically significant differences were found across the different clinical settings. Indeed, the resources allocated to various departments adhere to the same rules and standards and are therefore distributed equally. Similarly, work-home conflicts are a transversal phenomenon across all work environments and are generally reported by all workers[12,13].

Specifically, in surgical wards, nurses' organizational well-being is linked to relationships with their head nurses, resource availability, and work-home conflicts. These findings align with international literature, suggesting nurses in surgical wards emphasize social relationships over resource availability, explaining their organizational well-being[14]. Additionally, the head nurse's leadership style, influenced by personal characteristics, beliefs, and values, also impacts nurses' well-being, causing variations depending on the setting or head nurse involved[6].

Finally, in the emergency department, workloads, resource availability, work-home conflicts, and relationships with the head nurse and medical staff are correlated with nurses' organizational well-being. This result is not unexpected. The emergency setting's unique conditions, such as unpredictability, clinical instability, continuous contact with suffering and death, and occasional patient aggression, consistently challenge nurses' well-being[11].

Regarding the differences between care settings, the study shows significant differences in average scores for evaluating relationships with head nurses and workloads across medical, surgical, and emergency departments. These differences may be due to varying leadership styles, and this result is supported by literature[6]. The significant difference in workload evaluation scores aligns with international literature, highlighting workloads as a major factor affecting nurses' well-being, especially in emergency departments[11].

Implications for future research and clinical practice

The study highlights vital variables influencing nurses' organizational well-being and suggests focus areas for healthcare managers to improve. To address these challenges, literature suggests various interventions. For instance, fostering supportive relationships among healthcare professionals,[31] implementing flexible scheduling to reduce work-family conflict,[32] and ensuring adequate resource

allocation are proven strategies[33]. Leadership development programs for head nurses can also strengthen their ability to create supportive environments, thus positively affecting team dynamics and well-being[34]. Although this study has demonstrated the impact of various clinical context variables on nurses' organizational well-being, the literature lacks a comprehensive and adaptable tool capable of identifying differences in organizational well-being across different clinical contexts [3]. The development and availability of such a tool, which can focus on the specific variables of nursing environments, would be highly desirable[16]. These results are significant for the scientific community and stakeholders, as better organizational well-being among nurses leads to improved performance, enhancing patient care quality and safety[3].

Given these significant findings, future studies should expand the sample size, include more settings, and consider additional organizational context variables. This would allow for a broader inference of the results to the entire target population.

Limitations

Despite its importance, the study has some limitations. The study's context may affect its generalizability to an international population, thus further multicentric international research is advisable. Conflicts between work and non-work environments might be influenced by the specific social context, suggesting that expanding research internationally could be beneficial. Finally, the study design and social desirability of some variables might have influenced responses despite the validated scales used.

Conclusion

The study highlighted variables influencing nurses' organizational well-being by examining differences among various healthcare settings. Nurses consider the social environment (e.g., interprofessional relationships, peer relationships, relationships with superiors) crucial in determining organizational well-being. Available resources, job demands, and work-home conflicts are essential to evaluating organizational well-being.

The studied variables do not carry the same weight across different clinical contexts. Work-home conflicts were fundamental in predicting organizational well-being among nurses in all settings. Workloads are associated with organizational well-being in emergency departments and medical wards; relationships with colleagues are associated with well-being in medical wards; and nurse-physician relationships are related to organizational well-being in medical and emergency departments. The study results suggest that nurses' organizational well-being should be analyzed considering the specific characteristics of the clinical setting where the study is conducted.

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