

## Work Stress in Nurses and Its Influence on Patient Care and Quality of Life

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**Abstract:** Nurses play a critical role in patient care, but work-related stress is a prevalent concern that negatively affects their quality of life (QoL) and caring behaviors. High stress levels can lead to burnout, decreased job satisfaction, and compromised patient care. Understanding the impact of work stress on nurses' well-being and professional performance is essential for improving healthcare outcomes. **Objective:** To assess the work stress in nurses and its impact on their quality of life and patient care. **Methodology:** A cross-sectional study was conducted in the Nursing Department of Medicare Hospital, Multan from December 2023 to December 2024. One hundred nurses with at least 1-year experience and those directly involved with patient care were selected for the study. Data was collected through a questionnaire divided into four sections; demographic details, Expanded Nurses Stress Scale, Quality of Life questionnaire, and Caring Dimension Inventory. **Results:** The mean stress score was  $2.81 \pm 0.49$  with the highest score from death and dying and inadequate emotional preparation. The mean quality of life score was  $57.57 \pm 17.98$ , with better physical health core than mental health. Gender was significantly associated with quality of life with males scoring better than females. Job stress score and subsets were negatively associated with total caring behavior score. However, caring behavior was only significantly related to the total score, problems with the supervisor, intra-physician conflict, and patients and families. The variables of job stress were inversely associated with quality of life with job stress causing a 28% change in quality of life ( $R^2_{adj} = 0.281$ ,  $p < 0.001$ ). **Conclusion:** There was high job stress among nurses, which negatively affected their quality of life and caring behaviors.

**Keywords:** Mental Health, Nursing, Nurses

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### Introduction

Healthcare workers often experience work stress in their field, which impacts their psychological and physiological well-being and performance at work. The mental and physical strain of excessive workload and workplace activities negatively influences productivity. WHO has also highlighted job stress as a rising problem in the workplace. The majority of occupational hazards and financial losses are also accounted for by stress (1).

The nursing profession involves a lot of stress, requiring long work hours, excessive responsibility, and expectation for perfection with limited authority. Literature has shown that 10-15% of absenteeism in nurses is because they suffer from mental fatigue and physical tardiness to work continuously, affecting their quality of life and caring behaviors (2). An Indonesian study showed contrasting results and reported that work stress and workload were not associated with quality of care among nurses (3). However, Sarafis et al showed that work stress was related to nurses' care, affecting patient outcomes (4).

This study was conducted to assess the work stress in nurses and its impact on their quality of life and patient care.

### Methodology

A cross-sectional study was conducted in the Nursing Department of Medicare Hospital, Multan from December 2023 to December 2024. One hundred nurses with at least 1-year experience and those directly involved with patient care were selected for the study by availability sampling. Non-consenting participants were excluded. All participants provided their informed consent to become a part of the study. The hospital's ethical committee approved the study.

Data was collected through a questionnaire divided into four sections. The first section included demographic details such as age, sex, educational level, social status, shift type, and work experience. The second section was the 57-item Expanded Nurses Stress Scale on nine subscales; death and dying, conflict with physicians, inadequate emotional preparation, problems with peers, problems with supervisors, workload, uncertainty concerning treatment, discrimination, and patients and their families. The questions could be answered on a Likert scale from 1 to 6 with 1 being no stress and 6 being irrelevant. The minimum score obtained was zero and the maximum score was 228 with a higher score showing high stress.

The third section was a 12-item quality-of-life questionnaire about physical functioning, bodily pain, job limitations due to physical & emotional problems, vitality, health perception, social functioning, and mental health. The last section was a 25-item caring dimension inventory consisting of statements about caring for patients as a nurse on five dimensions: psychosocial, professional, physical-technical, inappropriate, and unnecessary. The statements could be answered on a Likert scale from 1 to 5, with one being strongly disagree and five being strongly agree.

All data were analyzed using SPSS version 24. Demographic data was presented by percentage and frequency while stress score, quality of life score, and caring score were presented as mean  $\pm$  SD. Demographic factors were correlated with nursing scores by ANOVA and t-test for normally distributed data and by Mann-Whitney U test and Kruskal Wallis H test for not normally distributed data. Bivariate analysis was carried out to correlate continuous variables using Spearman correlation. Multivariate analysis was carried out of independent variables with a p-value of 0.05 or less.



**Results**

One hundred nurses were enrolled in the study with a mean age of 30.78 ± 8.22 years and a mean experience of 8.07 ± 7.40 years. 80 (80%) nurses were female, 55 (55%) were married and 95 (95%) had a bachelor's degree. 85 (85%) nurses worked on rotation shifts and had more than four nightshifts per month. 40 (40%) worked in the internal medicine department. The sociodemographic characteristics of participants are shown in Table I.

The scores of the questionnaires and their dimensions are shown in Table II. The mean stress score was 2.81 ± 0.49 with the highest score from death and dying and inadequate emotional preparation. The least stress score was from the discrimination subset. The work stress was associated with age, sex, and department as women working in the ICU and emergency department had higher stress scores. The mean quality of life score was 57.57 ± 17.98, with better physical health core than mental health. Gender was significantly associated with quality of life with males

scoring better than females. The caring behaviors score was also higher in men and single nurses.

Table III shows that the job stress score and subsets were negatively associated with the total caring behavior score. However, caring behavior was only significantly related to the total score, problems with the supervisor, intra-physician conflict, and patients and families. Job stress was positively associated with inappropriate caring behaviors. The variables of job stress were inversely related to quality of life with job stress causing a 28% change in quality of life ( $R^2_{adj} = 0.281, p < 0.001$ ). Multivariate analysis showed gender ( $\beta = -0.031, p = 0.750$ ) and job stress ( $\beta = -0.509, p < 0.001$ ) were predictors of quality of life.

Job stress was also inversely associated with caring behaviors with job stress causing a 5% change in behaviors ( $R^2_{adj} = 0.051$ ) although the association was not significant ( $\beta = -0.061, P = 0.152$ ). Caring behavior was also not significantly related to gender ( $\beta = -0.079, P = 0.180$ ) and social status ( $\beta = -0.057, P = 0.133$ ).

**Table I: Characteristics of Study Participants**

Characteristics	N (%)
Age	
Younger than 25 years	20 (20%)
25-35 years	50 (50%)
36-46 years	15 (15%)
Older than 36 years	15 (15%)
Gender	
Male	20 (20%)
Female	80 (80%)
Social status	
Single	45 (45%)
Married	55 (55%)
Educational level	
Bachelors	95 (95%)
Masters	5 (5%)
Job title	
Nurse	88 (88%)
Head nurse/ supervisor	12 (12%)
Type of working shift	
Day	15 (15%)
Rotation	85 (85%)
Night shifts every month	
0	10 (10%)
4 or less	5 (5%)
More than 4	85 (85%)
Department	
Internal medicine	40 (40%)
ICU/ CCU	15 (15%)
Surgery	20 (20%)
Emergency	25 (25%)

**Table 2: Questionnaire scores**

Questionnaires	Mean ± SD
Expanded Nurses Stress Scale	2.81 ± 0.49
Death and dying	2.99 ± 0.58
Conflict with physicians	2.92 ± 0.69
Inadequate emotional preparation	3.11 ± 0.87
Problems with peers	2.45 ± 0.72
Problems with supervisors	3.12 ± 0.88
Workload	2.56 ± 0.63
Uncertainty concerning treatment	2.70 ± 0.64
Discrimination	2.19 ± 0.94
Patients and their families	2.73 ± 0.61
Quality of life	57.57 ± 17.98
Physical functioning	63.03 ± 20.38

Mental wellbeing	51.47 ± 20.02
Caring dimension inventory	37.18 ± 8.42
Psychosocial	13.67 ± 4.24
Professional	1.18 ± 0.50
Physical-technical	15.42 ± 4.17
Inappropriate	5.16 ± 0.98
Unnecessary	1.43 ± 0.56

**Table 3: Association between Study Variables**

Job stress	Quality of life			Caring behaviors					
	Physical	Mental	Total score	Unnecessary	Physical-technical	Professional	Inappropriate	Psychosocial	Total score
Total stress score	-0.19*	-0.61**	-0.38**	-0.18**	-0.11	-0.17*	-0.08	-0.27**	-0.29**
Death and dying	-0.18	-0.42**	-0.26*	-0.09	0.02	-0.32**	-0.08	-0.32*	-0.19
Conflict with physicians	-0.18*	-0.47**	-0.38**	-0.18	0.05	-0.16	0.10	-0.41**	-0.19*
Inadequate emotional preparation	-0.15	-0.51**	-0.40**	-0.15	0.09	-0.19	0.15	-0.19*	-0.05
Problems with peers	-0.09	0.51**	-0.40**	-0.2	0.03	-0.11	-0.06	-0.26**	0.119
Problems with supervisors	-0.28*	-0.41**	-0.40	-0.31	-0.31*	-0.10	0.09	-0.21	-0.29*
Work load	-0.19*	-0.41**	-0.38**	-0.15	-	-0.11	0.07	0.31**	0.20
Uncertainty concerning treatment	-0.21	-0.52**	-0.41**	-0.10	0.05	-0.05	0.08	0.32**	0.16
Discrimination	-0.22*	-0.30**	-0.30*	-0.19	-0.10	-0.23	-0.08	-0.16	-0.20
Patients and their families	-0.31*	-0.48**	-0.46**	-0.18	-0.05	-0.19	-0.05	-0.45**	-0.19*

**Discussion**

This study assessed the job stress in nurses and its impact on quality of life and caring towards patients. The results showed high stress levels in nurses, negatively impacting quality of life and caring behaviors. The stress score was higher than as reported by Danish and British nurses (6).

Gender was a significant factor contributing to stress, with female nurses being more anxious and stressed, which may be due to personal responsibilities on them outside work. This finding was in contrast to previous studies as gender was not related to job stress which may be attributed to a more significant number of female nurses than males (7, 8).

Age was related to stress in our study since older individuals experience burnout quicker than younger workers, which is different from other studies (9). Achour et al. reported no relationship between stress and age in nurses; however, more extended experience caused a higher burnout rate, which is related to job stress (10). Most stress is caused by death and dying, and insufficient emotional preparedness, which is similar to Greek and Philippine studies, which show that nurses feel helpless in preventing the pain and death of their patients. However, they try and stay hopeful till the end (11, 12).

Regarding quality of life, mental health score was lower than physical health, which was lower than reported in the literature (13). This may be because stress is connected to depression, anxiety, and low self-esteem, leading to mental unwellness. Stress was negatively related to the overall quality of life score and its dimensions, which is agreed upon by previous studies (14). The Same pattern was noted with caring behaviors and work stress, as the former accounted for 5% of the change in the latter. Spanish and English studies back these study results (15, 16).

Our study has some limitations. Its design did not allow for assessing casual associations between variables, and the sampling technique may have limited the generalizability of the results.

### Conclusion

A high level of job stress was present in nurses, contributing negatively to their quality of life and caring behaviors.

### Declarations

#### Data Availability statement

All data generated or analysed during the study are included in the manuscript.

#### Ethics approval and consent to participate

Approved by the department concerned. (IRBEC-MCNM-0587-24)

#### Consent for publication

Approved

#### Funding

Not applicable

### Conflict of interest

The authors declared the absence of a conflict of interest.

### Author Contribution

#### BA

*Manuscript drafting, Study Design,*

#### NA

*Review of Literature, Data entry, Data analysis, and drafting article.*

#### SP

*Conception of Study, Development of Research Methodology Design,*

#### NS

*Study Design, manuscript review, critical input.*

*All authors reviewed the results and approved the final version of the manuscript. They are also accountable for the integrity of the study.*

### References

1. Yehya A, Sankaranarayanan A, Alkhal A, Al Naemi H, Almeer N, Khan A, et al. Job satisfaction and stress among healthcare workers in public hospitals in Qatar. *Archives of environmental & occupational health.* 2020;75(1):10-17.
2. Yosiana Y, Hermawati A, Mas'ud MH. The workload and work environment analysis on nurse performance with job stress as a mediation variable. *Journal of Socioeconomics and Development.* 2020;3(1):37-46.

3. Rizkianti I, Haryani A. The relationship between workload and work stress with caring behavior of nurses in inpatient rooms. *Jurnal Aisyah: Jurnal Ilmu Kesehatan.* 2020;5(2):159-166.
4. Sarafis P, Rousaki E, Tsounis A, Malliarou M, Lahana L, Bamidis P, et al. The impact of occupational stress on nurses' caring behaviors and health-related quality of life. *BMC nursing.* 2016;15:1-9.
5. Vinstrup J, Jakobsen MD, Andersen LL. Perceived stress and low-back pain among healthcare workers: a multi-center prospective cohort study. *Frontiers in public health.* 2020;8:297.
6. Baglioni A, Cooper CL, Hingley P. Job stress, mental health and job satisfaction among UK senior nurses. *Managerial, Occupational and Organizational Stress Research: Routledge;* 2024. p. 199-210.
7. Fasbender U, Van der Heijden BI, Grimshaw S. Job satisfaction, job stress and nurses' turnover intentions: The moderating roles of on-the-job and off-the-job embeddedness. *Journal of advanced nursing.* 2019;75(2):327-337.
8. Shahraki Vahed A, Mardani Hamuleh M. Assessment of the relationship between mental health and job stress among nurses. *Pars Journal of Medical Sciences.* 2022;8(3):34-40.
9. Rahmani R, Ebrazeh A, Zandi F, Rouhi R, Zandi S. Comparison of job satisfaction and stress among nurses, operating room and anesthesia staff. *Iranian Journal of Ergonomics.* 2021;8(4):103-114.
10. Achour M, Binti Abdul Ghani Azmi I, Bin Isahak M, Mohd Nor MR, Mohd Yusoff MYZ. Job stress and nurses' well-being: Prayer and age as moderators. *Community mental health journal.* 2019;55:1226-1235.
11. Hwang E. Effects of the organizational culture type, job satisfaction, and job stress on nurses' happiness: A cross-sectional study of the long-term care hospitals of South Korea. *Japan Journal of Nursing Science.* 2019;16(3):263-273.
12. Lee J-H, Hwang J, Lee K-S. Job satisfaction and job-related stress among nurses: The moderating effect of mindfulness. *Work.* 2019;62(1):87-95.
13. Lu H, Zhao Y, While A. Job satisfaction among hospital nurses: A literature review. *International journal of nursing studies.* 2019;94:21-31.
14. Khaghanizadeh M, Ebadi A, Cirati Nair M, Rahmani M. The study of the relationship between job stress and quality of work life of nurses in military hospitals. *Journal of military medicine.* 2022;10(3):175-184.
15. Guo H, Ni C, Liu C, Li J, Liu S. Perceived job stress among community nurses: A multi-center cross-sectional study. *International journal of nursing practice.* 2019;25(1):e12703.
16. Bardhan R, Heaton K, Davis M, Chen P, Dickinson DA, Lungu CT. A cross-sectional study evaluating psychosocial job stress and health risk in emergency department nurses. *International journal of environmental research and public health.* 2019;16(18):3243.



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