RESEARCH ARTICLE

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Job Stress and Burnout among Nurses: A Cross-Sectional Correlational Study

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Abstract

Background: Nurses are the backbone of any medical institution. Therefore, it is very important for nurses to be stress-free so that they can take proper care of the patients. **Aim:** The aim of the current investigation was to assess the stress and burnout among nurses and find any relationships between the stress and burnout. **Methods:** Fifty-five female nurses were randomly selected from medical institutions in Patna, India. The ages of the participants were 30 to 50 years. After obtaining informed consent from all the participants, the Job Stress Survey scale and the Maslach Burnout Inventory were administered. The ethics committee of the university approved the present research. **Results:** In our study, the minimum age of the participants was 33 years and the maximum age was 50 years. 58.2% of the participants were educated up to GNM and 41.8% B.Sc. in nursing. 49.1% of the participants reported an adequate work atmosphere. It was found that 49.1% of nurses had high emotional expression, while 50.9% had moderate emotional expression. 90.9% of the nurses had low and 9.1% moderate degrees of personal accomplishment, whereas 7.3% showed low depersonalization, 70.9% moderate depersonalization, and 21.8% high depersonalization. **Conclusion:** In our study, it was found the job stress index was strongly correlated negatively with burnout personal achievement and positively with burnout depersonalisation. The job stress severity was negatively associated with burnout total score. The lack of organisational support severity was positively associated with burnout depersonalisation and negatively associated with burnout personal accomplishment.

Major Findings: The duration of employment was significantly positively associated with depersonalization, emotional expressiveness, and personal accomplishment. The burnout total score showed a strong positive correlation with both age and job duration. To reduce work-related stress and burnout among nurses, authorities should provide professional and skill training and counseling services.

Keywords: Burnout, Job Stress, Nurses

1. Introduction

Job related stress includes both psychological and physiological concerns that negatively impact an individual's productivity, efficiency, psychophysical health, capacity of work, job satisfaction, and work quality[1,2].

Extreme work-related stress can result for nurses who are under pressure to provide patients with high-quality treatment while having limited resources[1].

A major psychological issue that impacts workers in several fields is burnout. According to researchers[3], it is brought on by ongoing stress in the workplace and manifests as three different symptoms: diminished professional accomplishment, depersonalization, and emotional exhaustion[4].

Researchers[5] assessed 348 nurses in a cross-sectional study, and the results showed that 29.2% of the nurses experienced burnout.

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In a descriptive correlational study, researcher[6] revealed that the mean ratings of job stress and occupational burnout were below average for 316 nurses. Both occupational burnout and job stress as well as job stress and empowerment were found to be significantly correlated.

Burnout was present in 44.6% of medical staff members, 33.5% of nurses, and 36.2% of midwives. In accordance with the burnout dimensions, 96.9% claimed high personal accomplishment, "48.2 percent of healthcare workers expressed moderate to high emotional exhaustion and 51.8 percent reported moderate to high" depersonalization[7].

According to study[8] 40.6% of nurses reported feeling Emotionally Exhausted (EE), 41.8% reported feeling moderately exhausted (EE), and 50.2% reported feeling very depersonalized (DP). Moreover, a lower degree of Personal Accomplishment (PA) was reported by 55.8% of nurses, and a moderate level of PA reduction was reported by 27.5%.

In a cross-sectional study, researchers[9] discovered that 53.6% of the nurses experienced burnout. Burnout is strongly correlated with age, working nights, training as an ICU expert, income, alcohol and cigarette usage, employment position, the number of patients on a shift, and the perception that the work is very challenging.

In a cross-sectional study conducted in Belgium, researchers[10] discovered "that 68% of the individuals suffered burnout," followed by depersonalization (29%), personal accomplishment (31%), and emotional weariness (38%).

In a cross-sectional study by researcher[11] and found that discovered that 61% of nurses experienced moderate burnout, while another researcher[12] discovered that 76% of nurses experienced burnout. A significant relationship was found between emotional exhaustion, level of education, and work environment. Gender was connected to depersonalization among nursing technicians. Education level showed a significant correlation with depersonalization in nurses[13].

Burnout in nurses results from not just overwork but also from an imbalance between the demands made and the resources available to meet them. These requirements in the workplace are connected to emotional management[14] and intimate contact with patients and their families. Burnout affects healthcare workers more than other professionals[15,16]. A study done by[17] found 49.6% of nurses had job stress, and researcher[18] found 24% of the healthcare workers had burnout syndrome.

2. Materials and Methods

2.1 Objectives of the Study

To assess the job stress and burnout among female nurses.

To assess the relationship between job stress and burnout among female nurses.

To assess the relationship between demographic characteristics, job stress, and burnout among female nurses.

2.2 Hypotheses

H1: There would be significant correlation between job stress and burnout.

H2: There would be a significant correlation between burnout, job stress, and sociodemographic variables.

2.3 Method

A sample of 55 female nurses were selected through a simple random sampling method, aged between 30 and 50 years, from different institutions in Patna, India. The inclusion criteria for the participants were: minimum educational qualification was GNM, and minimum service duration was 3 years. The exclusion criteria included a history of any neurological or psychological illnesses as well as a severe head injury.

2.4 Tools

2.4.1 Socio-Demographic Data Sheet

For this study, a socio-demographic data sheet specifically tailored to capture socio-demographic factors such as age, education, length of service, number of family members, work environment, family support system, and sleep duration.

2.4.2 The Job Stress Survey[19]

Stressors at work are measured for both frequency and severity using the JSS. A 9-point rating system is used by respondents to indicate how serious each stressor is. The three measures that make up the Job Stress Survey (JSS) are the Job Stress Index, Job Stress Severity, and Job Stress Frequency. The JSS also consists of 6 subscales: lack of organizational support index, lack of organizational support severity, lack of organizational support frequency, and work pressure index, job pressure severity, and job pressure frequency. The job pressure index and the absence of organizational support index have low

coefficient alphas of .80, whereas the job stress severity and frequency subscales have high coefficient alphas of .89.

2.4.3 Maslach Burnout Inventoy (MBI)[20]

In 1997, Maslach *et al.* created MBI. Depersonalization, personal accomplishment, and emotional exhaustion are the three symptoms of burnout syndrome that are evaluated by the MBI. The inventory consists of twenty-two items. On a seven-point entirely anchored scale, with 0 representing "never" and 6 representing "every day," respondents were asked to rate how frequently they feel these ways. The subscale's reliability coefficients were as follows: .71 for personal accomplishment, .79 for emotional tiredness, and .90 for depersonalization.

2.5 Procedure

The researcher would have approached the head of the relevant medical institute and explained the study's objectives. After getting informed consent by respondents, the Maslach burnout inventory and the job stress scale were administered. The university's ethical committee gave its approval to the study.

2.6 Statistical Analysis

The collected data was examined using SPSS-20 (for Windows). In the current research, statistics such as correlation, mean, SD, and percentage were employed. At $p<0.05$, the significance threshold was maintained.

3. Results

Table 1 shows the sociodemographic information for the sample. It was found that the mean age of the sample was 39.30±3.52 years. It was also found that the average length of service was 7.84±1.64 years, and their average workday was 7.63±0.82 hours. They also had an average of 5.14±1.36 family members, 2.09±0.80 children, and 5.15±0.91 hours of sleep each day.

Table 2 shows the participant characteristics. Out of the 55 nursing professionals, 41.8% had earned a B.Sc. in nursing, and 58.2% had finished their studies in General Nursing and Midwifery (GNM). Spouses of participants showed that the work culture was satisfactory; 98.2% reported receiving aid from their families; and 85.5% reported having a job among those who participated in the study, 45.5% worked the morning shift, 41.8% the afternoon, and 12.7% the night shift throughout the time that data was collected. Of the individuals, 14.5% had an abuse history, and 12.7% of the participants had a previous history of substance intake.

Table 3 displays the dimension-wise severity level of burnout among nurses. 49.1% showed high emotional expression, while 50.9% showed moderate emotional expression. 90.9% of the subjects showed low and 9.1% moderate degrees of personal achievement, whereas 7.3% of the nurses showed low depersonalization, 70.9% moderate depersonalization, and 21.8% strong depersonalization.

Table 4 presents the job stress scores among female nurses. The lowest job index score was 20.43 and the highest score was 40.90. The lowest job stress severity score was 4.90 and highest score was 7.20, the lowest job stress frequency score was 4.03 and highest score was 5.90, the lowest job pressure index score was 12.10 and highest score was 53.60, the lowest job pressure severity score was 4.10 and highest score was 8.90, the lowest job pressure frequency score was 4.20 and highest score was 7.90, the lowest score of lack of organizational support index was 19.50 and highest score was 40.20, the lowest score of lack of organizational support severity was 4.90 and highest score was 7.50, the lowest score of lack of organizational support frequency was 3.90 and highest score was 5.70.

Table 5 shows the association between job stress and burnout among female nurses. The job stress index

Table 1. Socio-demographic characteristics of the sample (N = 55)

Variables	Minimum Age	Maximum Age	Mean ± SD
Age (in years)	33	50	39.30 ± 3.52
Service duration (in a year)	5.0	13.0	7.84 ± 1.64
Duration of daily work (in hours)	6.0	10.0	7.63 ± .82
Total no of family members	3.0	8.0	5.14 ± 1.36
Number of children	1.0	4.0	2.09 ± .80
Sleep per day (in hours)	4.0	9.0	5.15 ± .91

strongly correlated negatively with burnout personal achievement (r = .278, p = < .05) and positively with burnout depersonalisation (r = .316, p = < .05). Burnout emotional expression, burnout personal accomplishment, and burnout overall score all showed significant negative correlations with job stress levels (r

Table 2. Characteristics of sample (N= 55)

Variables	n (%)	
Education Qualification	GNM	32 (58.2)
	B.Sc. Nursing	23 (41.8)
Husband Occupation	Employed	47 (85.5)
	Unemployed	8 (14.5)
Family support	Yes	54 (98.2)
	No	1 (1.8)
Work atmosphere	Adequate	27 (49.1)
	Not adequate	28 (50.5)
Duty shift	Mourning	25 (45.5)
	Afternoon	23 (41.8)
	Night	7 (12.7)
History of substance intake	Yes	7 (12.7)
	No	48 (87.3)
History of abuse	Yes	8 (14.5)
	No	47 (85.5)

Table 3. Dimensions-wise severity level of burnout among nurses (N = 55)

Burnout dimensions wise severity level		n (%)
Emotional expression	Moderate	28 (50.9)
	High	27 (49.1)
Depersonalization	Low	4 (7.3)
	Moderate	39 (70.9)
	High	12 (21.8)
Personal accomplishment	Low	50 (90.9)
	Moderate	5 (9.1)

Table 4. Score of job stress among Female Nurses (N = 55)

Job stress scale score	Lowest score	Highest score
Job stress index	20.43	40.90
Job stress severity	4.90	7.20
Job stress frequency	4.03	5.90
Job pressure index	12.10	53.60
Job pressure severity	4.10	8.90
Job pressure frequency	4.10	7.90
Lack of organizational support index	19.50	40.20
Lack of organizational support, severity	4.90	7.50
Lack of organizational support, frequency	3.90	5.70

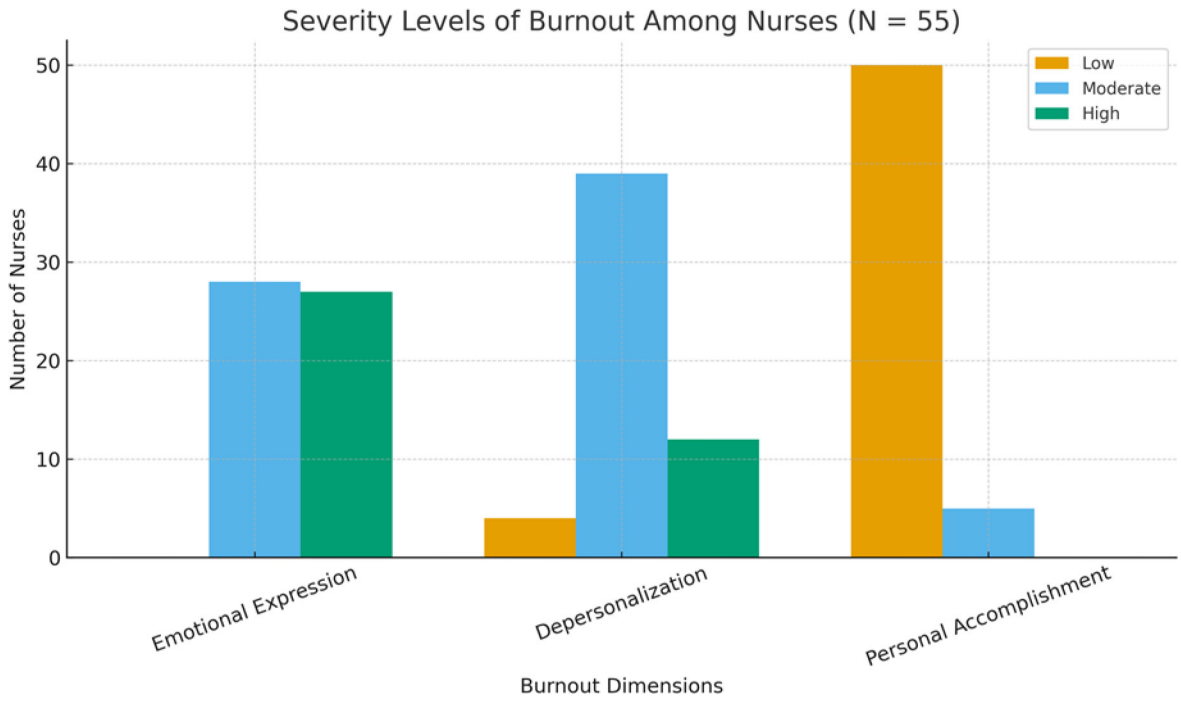


Figure 1. Severity level of burnout.

Table 5. Association between job stress and burnout among female nurses (N = 55)

Job stress scale	Burnout: Emotional expression	Burnout: Depersonalization	Burnout: Personal Accomplishment	Burnout: Total score
Job stress index	.183	**316***	**-.278***	-.135
Job stress severity	**-.323***	.258	**-.504****	**-.321***
Job stress frequency	-.009	.155	-.037	.016
Job pressure index	-.032	**.266***	-.169	-.026
Job pressure severity	-.232	**.281***	**-.296***	-.178
Job pressure frequency	-.097	.134	-.021	-.022
Lack of organizational support index	-.144	**.295***	-.240	-.109
Lack of organizational support, severity	-.185	**.316***	**-.305***	-.149
Lack of organizational support, frequency	-.077	.117	-.176	-.106

***p<.01 level (2-tailed); *p<.05 level (2-tailed)*

Table 6. Association between job stress, burnout, and demographic characteristics (N= 55)

Scores of Job Stress and Burnout	Age	Duration of job	Daily Duty	No family members	Sleep duration
Job stress index	-.059	.001	.162	-.072	.021
Job stress severity	-.057	.035	.091	-.125	.119
Job stress frequency	-.041	-.053	.139	.082	.059
Job pressure index	-.002	.051	.171	.032	.100
Job pressure severity	-.071	.096	.182	-.115	-.068
Job pressure frequency	-.099	.010	.155	.148	.091
Lack of organizational support index	.045	.095	.025	-.184	.039
Lack of organizational support, severity	.054	.095	.025	-.184	.039
Lack of organizational support, frequency	.051	-.100	.061	-.005	.071
Burnout: Emotional expression	.220	**.269***	-.074	.175	-.227
Burnout: Depersonalization	.154	**.297***	-.136	.079	.116
Burnout: Personal Accomplishment	.211	**.268***	-.001	-.052	-.230
Burnout: Total score	**.272***	**.371****	-.069	.060	-.186

"***p<.01 level (2-tailed); *p<.05 level (2-tailed)*

= -.323, p = .05; r = -.504, p = .01; r = -.321, p = .05). The job pressure measure and burnout depersonalization were positively correlated (r = .266, p < .05). The level of work stress was linked to both depersonalization and personal achievement in cases of burnout, with a positive correlation for depersonalization (r =.281, p =.05) and a negative correlation for personal achievement (r = .296, p = .05). There was a significant positive association found between burnout depersonalization and lack of organizational support scores (r = .295, p =< .05). Burnout depersonalization was positively correlated with the jobs stress severity score (r = .316, p =< .05), whereas burnout personal accomplishment was negatively correlated (r = -.305, p =< .05).

Table 6 Shows the association between job stress, burnout and demographic characteristics among female

nurses. There was no discernible correlation between sociodemographic traits and occupational stress. The duration of employment was significantly positively associated with depersonalization (r = .297, p = .05), emotional expressiveness (r = .269, p = .05), and personal accomplishment (r = .268, p = .05). The burnout total score showed a strong positive correlation with both age (r = .272, p = .05) and job duration (r = .371, p = .05).

4. Discussion

Present research indicated that 49.1% of nurses had high emotional expression, while 50.9% had moderate emotional expression. 90.9% of the subjects showed low and 9.1% moderate degrees of personal achievement, whereas 7.3% of the participants showed low depersonalization, 70.9% moderate depersonalization, and 21.8% high depersonalization. A study conducted by other researchers found almost similar findings[7,8].

A study done by researcher[7] and found that 33.5% of nurses and 36.2% of midwives had burnout, 96.9% reported high personal accomplishment, 48.2% healthcare workers had moderate to high emotional exhaustion and 51.8% reported moderate to high depersonalization. Another study done by[8] and found 40.6% of nurses reported feeling emotionally exhausted, 41.8% reported feeling moderately exhausted, and 50.2% reported feeling very depersonalized.

Researchers[11] found 68% of the individuals suffered burnout, followed by depersonalization (29%), personal accomplishment (31%), and emotional weariness (38%). Other researcher[11,12] found that maximum nurse experienced burnout.

According to our research, there was a positive correlation between burnout depersonalization and a negative correlation between the job stress index and burnout personal accomplishment. The level of job stress was significantly inversely correlated with burnout emotional expression, burnout personal accomplishment, and burnout overall score. There was a substantial positive correlation between the depersonalization of burnout and the low organizational support score. This suggested that high levels of depersonalization may put nurses under more strain at work, and that depersonalization can result from employees feeling disconnected from their jobs and coworkers. Another researcher reported nearly identical results[6.] A study conducted by researcher[6] and found that significant association between occupational burnout and job stress as well as job stress and empowerment.

Longevity of a job was positively correlated with depersonalization, self-accomplishment, and emotional expressiveness, according to our study. Both age and length of employment were positively associated with total burnout scores. According to our results, age, burnout, and length of employment may all have complicated relationships. People's emotional expressiveness, sense of accomplishment, and vulnerability to burnout may vary as they get older and work longer hours. Researcher found that burnout was positively associated with age, job position, income, alcohol and cigarette use, and working night shifts[9].

5. Conclusion

The current study discovered a substantial positive association between burnout depersonalization and the job stress index and a significant negative correlation between burnout personal achievement and the job stress index. Burnout and depersonalization were significantly positively associated with a lack of organizational support. The duration of service was significantly positively correlated with emotional expressiveness, depersonalization, and personal achievement. Age and the overall burnout score showed a significant positive correlation.

6. Limitations and Implications

Not having a comparison group, a small sample size, and no male participation were the main drawbacks. To reduce the negative effects of work-related stress on the nursing profession and the healthcare system, the managing director should provide a supportive environment for nurses. Provide professional and skill training to decrease work stress, reduce extra workload, and offer counseling services to reduce stress, burnout, and other psychological problems.

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Author Contribution

Conceptualization, methodology, data curation, Manglesh Kumar Manglam and Stuti Kumari; writing original draft preparation, Sentisungla Longchar.

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