

# OCCUPATIONAL STRESS AMONG NURSING STAFF AND PERCEPTION REGARDING THE WORK ENVIRONMENT : A CROSS-SECTIONAL STUDY

**Shambhavi, Rajesh Kunwar & Sandeep Rai\***

Department of Community Medicine, T S Misra Medical College Lucknow.

\*Corresponding author: [drsrai68@gmail.com](mailto:drsrai68@gmail.com)

## ABSTRACT

**Introduction:** Occupational stress has been closely linked with healthcare professionals, including Nurses. The strenuous workload in the profession not only impacts the care of the patients but also hampers their own physical and Mental health. Thus, this study aimed to study the stressors of the work environment and their impact on their overall health. **Methods:** An Institutional Based Cross-Sectional Study was conducted among all the nursing staff working in a tertiary hospital in Gurugram. A pre-designed and pre-tested questionnaire covering their details, socio-demographic details, perception towards the work environment and impact of the job on their psycho-social health was made. The stress level was measured by the Professional Life Stress scale given by David Fontana, The British Psychological Society and Routledge. Ltd, Leicester, England,1989. Data analysis was done in Microsoft Excel Sheet and Epi-info. **Results:** In this study, on the stress scale, 47.14% reported moderate stress, 38.57% mentioned that stress was a problem, and 10% reported stress as a major problem in their lives. Stress was not a problem among 4.28% of the Nursing Staff only. Among the socio-demographic variables, married nursing staff and the increasing stress score were found to be significant.( $p < 0.05$ ) **Conclusion:** Stress was a crucial issue among 47.14 % of the nursing staff. 54.29% of people wanted more from their work environment. Thus, the stress induced due to work culture should be taken care of so that they can be physically and mentally efficient at work.

**Keywords:** Nursing Staff, Occupational stress, coping strategy, psycho-social health, work environment

## Introduction

Occupational stress, also known as work- or job-related stress, refers to the process by which stressors in the work environment lead to the development of psychological, behavioural or physiological strains that result in long-term health effects.[Salih S Z, 2014] Occupational stress significantly impacts workers' health and well-being, quality of life, family life, job satisfaction, turnover, and absence from work.

Nursing has always been identified as a profession with a high-stress level. They have to face and undergo a high number of potent stressors, lowering any individual's work efficiency. [Okuhara M, 2021] To meet their profession's physical and emotional demands, nurses need to be free of occupational stress and maintain good health. Occupational stress has been reported to affect job satisfaction and performance among nurses, thus compromising nursing care and placing patients' lives at risk. [Dighe SV, 2020]

The nurse-population ratio in the country at present is 1:670 population with the WHO recommendation of 1:300. [ Indian Nursing Council. Nurses Registration and Tracking System] It is quite significantly challenging to ignore the factors that impact work-related stress, i.e., including long working hours, the quality of the relationships between hospital workers, quality of supervision, work environment, and high workload. In a study conducted in Delhi by Bhatia N et al., 87.4% of nurses reported occupational stress [Bhatia N, 2001], while in another study conducted in Saudi Arabia, the prevalence of occupational stress in nurses was reported 45.5%.[Al- Makhaita, 2014]

Stress-related hazards at work can be divided into work content and work context. Work content includes job content; workload and work pace; working hours; and participation and control. Work context includes career development, status and pay; the worker's role in the organization (unclear role, conflicting roles); interpersonal relationships (inadequate, inconsiderate or unsupportive supervision, poor relationships with colleagues, bullying/harassment and violence, isolated or solitary work, etc.); organizational culture (poor communication, poor leadership, lack of behavioural rule, lack of clarity about organizational objectives, structures and strategies); and work-life balance.[WHO.Occupational health stress at the workplace]

There is a need that we develop some norms of desirable or acceptable levels for the Nursing staff. All the stressors should be worked upon, and a positive environment should be created for the nursing staff. The nurses constitute the main pillar of support in the treatment and recovery of patients. Efforts should be made to rebuild the work environment in a positive way. Thus, this study was done to assess the psycho-social impact of occupational stress on the nursing staff of a tertiary care hospital in Gurugram, India and also to determine their perception regarding the work environment.

## Methods:

An Institutional Based Cross-Sectional Study was conducted among all the nursing staff working in a tertiary hospital in Gurugram was conducted between October 2019- November 2019. All the nursing staff working in the hospital where the study population includes 140 Nursing Staff.

Inclusion Criteria: All the Nursing staff working in the hospital set-up who have given consent were included in the hospital. Repeated attempts were made to contact all those who were on leave or were not available at the time of data collection.

Exclusion Criteria: Those who did not give their consent or were not available after repeated visits were excluded from the study

Data Collection: Data Collection was done using a pre-designed and pre-tested questionnaire covering their personal details, socio-demographic details, perception towards the work environment and impact of the job on their psycho-social health.

Data Collection Tool: The stress level was measured by the Professional Life Stress scale given by David Fontana, The British Psychological Society and Routledge. Ltd, Leicester, England,1989. [FontanaD,1989] It had 22 questions which covered different variables like personality perception by others, optimism for life, satisfaction with self and work, adjustment to the professional environment and so on.

A total score of 60 was classified as follows:

- a) 0–15: Stress is not a problem in life;
- b) 16–30: Moderate stress, which can reasonably be reduced;
- c) 31–45: Stress is clearly a problem and needs remedial action;
- d) 46–60: Stress is a major problem, and something must be done.

Informed consent was obtained from all the participants.

Statistical Analysis: Statistical analysis was done in Microsoft Excel Sheet and Epi-info. Univariate analysis was done, and p- the value was calculated <0.05.

Ethical Approval was obtained from the Institutional Ethical Committee.

### Results:

Among the 140 Nursing Staff, they were in the age group of 25-36 years, and the majority were in the young age group of 18-25 years (77.14%). Most of the nursing staff recruited were females (74.29%). The working experience of the maximum nursing staff interviewed was less than 1 year (47.14%), and mostly married nursing staff were recruited in the hospital at that time span with income between Rs. 30,000 – Rs. 60000. (57.14%).

**Table 1: Socio-demographic details of the Nursing Staff(n =140)**

Variables	N (%)
<b>1. Age</b>	
18-25 Years	108 (77.14%)
26- 35 years	32 (22.85%)
<b>2. Gender</b>	
Females	104(74.29%)
Males	36 (25.71%)
<b>3. Working experience</b>	

<1 year	66 (47.14%)
1-3 years	36 (25.71%)
3-5 years	28 (20%)
>5 years	10(7.14%)
<b>4. Marital status</b>	
Married	80(57.14%)
Unmarried	60(42.85%)
<b>5. Income</b>	
<30,000	22(15.71%)
30,000 – 60,000	82(58.57%)
> 60,000	38( 27.14%)

Table 1 shows that among the 140 Nursing Staff, they were in the age group of 25-36 years, and the majority were in the young age group of 18-25 years (77.14%). Most of the nursing staff recruited were females (74.29%). The working experience of the maximum nursing staff interviewed was less than 1 year (47.14%), and mostly married nursing staff were recruited in the hospital at that time span with income between Rs. 30,000 – Rs. 60000. (57.14%).

**Table 2: Bivariate analysis showing an association between Socio-demographic variables and stress scale**

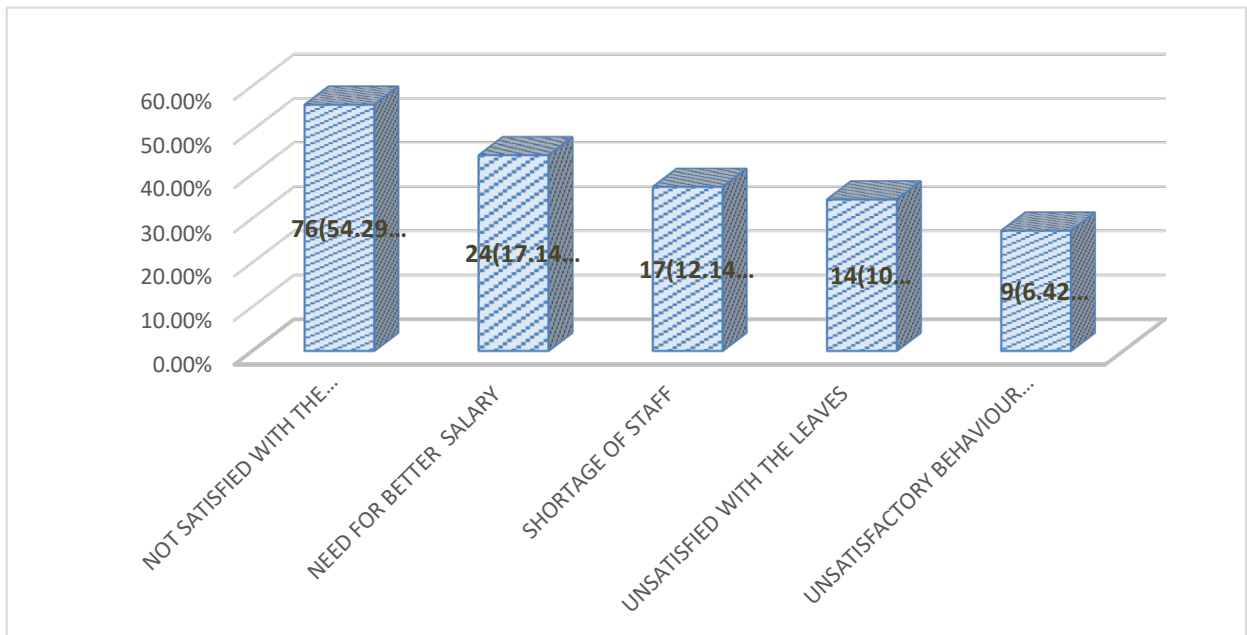
VARIABLES	STRESS SCORE			Total ( N=140)	p-value; (<0.05) Chi-Square(X <sup>2</sup> )
	0-15	16-30	31-45		
<b>Age</b>	<b>N (%)</b>	<b>N (%)</b>	<b>N (%)</b>		
18-25	14 (12.96%)	44 (40.75%)	50 (46.29%)	108(100%)	p=0.2360; X <sup>2</sup> = 2.89
26-35	8(25 %)	10(31.25%)	14(43.75%)	32(100%)	
<b>Gender</b>					
Female	14(14.86%)	22(31.20%)	68(57.94%)	104(100%)	<b>p=0.001</b> <b>X<sup>2</sup>= 17.5307</b>
Male	6(5.14%)	20(10.80%)	10(20.06%)	36(100%)	
<b>Working Experience</b>					
<1 year	26( 26.40%)	30(27.34%)	10(12.26%)	66(100%0)	p=0.566809 X <sup>2</sup> = 4.822
1-3 years	14(14.40%)	16(14.91%)	6(6.69%)	36(100%)	
3-5 years	12( 11.20%)	10( 11.60%)	6(5.20%)	8(100%)	
>5 years	4( 4.00%)	2(4.14%)	4(1.86%)	10(100%)	
<b>Marital Status</b>					
Married	18(11.43%)	20(18.29%)	42(50.29%)	80(100%)	<b>p=0.002053</b> <b>X<sup>2</sup>= 12.3773</b>
Unmarried	2 (5.04%)	12(13.71%)	46(37.71%)	60(100%)	
<b>Income</b>					
<30,000	4(5.97%)	6(7.23%)	12(8.80%)	22(10%)	p= 0.55511 X <sup>2</sup> = 3.0162
30,000-60,000	24(22.26%)	26(26.94%)	32(32.80%)	82(100%)	
>60,000	10(9.77%)	14(11.83%)	12 (14.40%)	36(100%)	

Table 2 depicts that among all the socio-demographic factors, the association between stress levels among females was more in comparison to males in this study. Hence, it came out to be statistically significant. ( $p < 0.001$ ). Another factor which was statistically significant with the increased stress was the marital status of the participants. ( $< 0.05$ ) The stress was found more in married nursing staff compared to unmarried nursing staff.

**Table 3: Prevalence of Stress Score among the Nursing Staff**

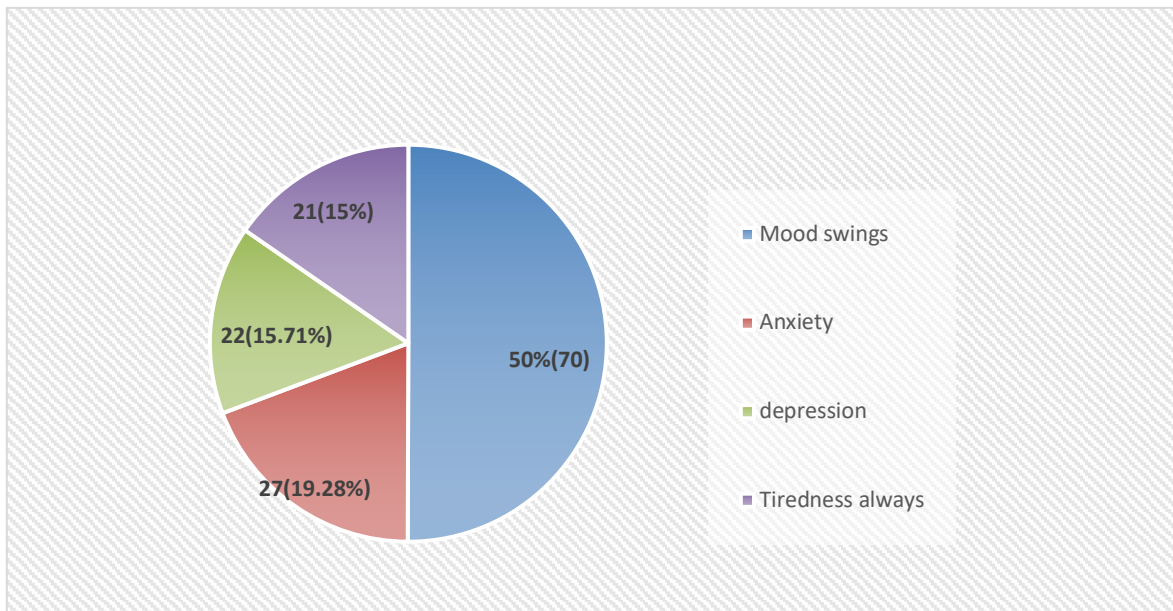
<b>Stress levels (As per David Fontana Scale)</b>	<b>Frequency</b>	<b>Percentage</b>
Stress is a major problem (46-60)	14	10%
Stress is clearly a problem (31-45)	54	38.57%%
Moderate stress (16-30)	66	47.14%
Stress, is not a problem (0-15)	6	4.29%

Table 3 shows the stress levels among the participants; 10% reported stress to be a major problem in their lives, 38.57% mentioned that stress was clearly a problem for them, while moderate stress was reported by 47.14%. Only 4.29% of the Nursing Staff reported that stress was not an issue for them.



**Figure 1: Reasons for a Stressful environment**

Figure 1 depicts the factors which contributed to the stressful work environment. 54.29% were not satisfied with the working hours of the hospital. The prolonged and strenuous working hours made things worse for the Nursing Staff of the Hospital. The extended working hours in the hospital were actually a troublesome matter to deal with for the Nursing Staff. 17.14% of Nurses felt that they were underpaid. The Need for a better salary was also a crucial issue for the Nursing staff. The workload they had and the salary received were definitely unsatisfactory. 12.14% of participants felt that there was a shortage of Nursing Staff which was responsible for the deteriorated work culture. 10% of nursing staff felt that the leaves sanctioned to them are quite a few as they hardly get time to spend with their family. 6.42% felt that the working staff behaviour made the condition worse



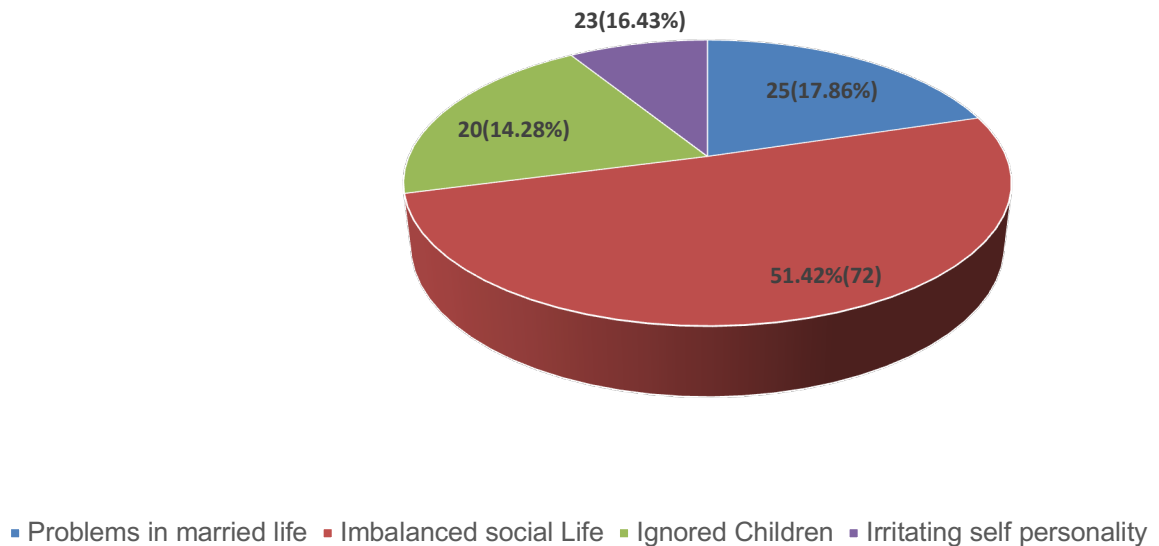
**Figure 2: Impact on Mental Health**

Figure 2 shows that Mental occupational work stress impacted their Mental health also. 50% of them reported that they had severe mood swings due to work stress. 19.28% felt anxiety, 15.71% Always felt depressed due to severe stress, and 15% felt constantly fatigued and tired throughout the day.

Not only Mental Health, due to occupation burnout, but their sleep cycle was also impacted. Talking about the sleep disorders impacted due to the severe stress at the working place. 68 (48.57)% complained that it also impacted their sound sleep, and they used to wake up at odd hours due to the stress of reaching the hospital at the time. 48(34.29%) couldn't take a proper 7-8 hours of sleep, and they faced disturbed sleep at night. 24(17.14%) of the nursing staff took a long time to fall asleep, although they were highly tired and felt fatigued.



**FIG.3 ADVERSE WORK EFFECTS ON LIFE**



**Figure 3: ADVERSE WORK EFFECTS ON LIFE**

Occupational stress at work also impacted their personal life. Figure 3 depicts that 51.42% complained of having an imbalanced social life, and they suffered hard in maintaining a work-life balance in life. 17.86% have felt that the uneven working hours and the associated stress impacted their married life. They experienced a stressful situation in their marriage due to their work. 14.28% felt that their children were being ignored due to the strenuous working hours, and they couldn't spend quality time with their kids. 16.43% complained about self-irritation, which was enhanced due to the consistent work stress. The factors decreasing the stressors in the work environment included well-coordinated staff duties (36.42%) followed by proper staffing (21.43%), and the well-equipped ward (38.75%) made things easier.

**Discussion:**

In this study, 47.14% of participants reported moderate stress, 38.57% mentioned that stress was clearly a problem, and 10% reported stress to be a major problem. Among the socio-demographic factors, married females and the stress factor came statistically significant, while a study done in a tertiary hospital in Delhi shows that there was no significance found in the study among the increasing work-related stress among married females. The increased responsibility post-marriage could be the reason behind this.[Bhatia N,2001]

However, reported that single nurses had marginally higher stress scores than married nurses. This was again not statistically significant. Hence, to ascertain the association between marital status and stress, further studies are required. [Callaghan et al., 2011]

Age and increased experience were not statistically significant found in this study, whereas a study reveals that increasing work experience and increasing age are significant factors for increasing work-

related stress. Different work cultures and staffing patterns could be the reason for the difference. [Piko B.,1999]

In a study done by Kakeman E et al., 78.4% of respondents reported that their job was stressful. Nurses reported issues with shiftwork, staffing, pay, workplace discrimination, management, policy and excessive workloads as sources of occupational stress.[Kakeman E, 2019]

In another study of Iran by Eslami R et al., Nurses reported issues with shiftwork, staffing, pay, workplace discrimination, management, policy and excessive workloads as sources of occupational stress. [Eslami R,2015]

In a study done by Chaudhary et al., stress existed among 87.6% of Nursing Staff, which was similar to the current study. The reasons were conflicts with supervisors, unreasonable demands from patients and their families, workload and limited experience with death and dying were the leading causes, while problems relating to peers and discrimination were the least common. It is quite proven that similar reasons are the triggers for the Nursing Staff in the hospital.[Chaudhary AP, 2018]

In this study, 34.29% of participants opted for yoga/Meditation to cope with the stressful workload, whereas, in a study done in Delhi, 44.8% of the nurses handled it by being optimistic and positive. [Bhatia N,2001] As we all know, Yoga and Meditation are the best modes to relieve daily stress, so the maximum of them took help by inculcating this in their routine.

Coming to the main stressor of the Nurses in this study was the prolonged working hours in the hospital. 56.7% of people were not satisfied with the stressful working hours, which could not let them have a Work-Life balance. 17.4% complained of curtailed salary, which became a gross issue in contributing to the dissatisfaction in the work environment again. In another study done by Sharma P, inadequate salary was also one of the key factors causing stress, as perceived by 75% of nurses.[Sharma P, 2014]

In another study done by Latif R. et al., the six domains of stressors included taking care of patients, clinical educators/instructors and ward staff, clinical assignments and workload.[Latif R, 2019]

Another study by Zyga S. also depicts that, in particular, it was found that women nurses systematically manifest the ways focused on emotion, i.e. search for divine intervention" and "prayer/daydreaming.[Zyga S, 2016]

**Conclusion:** Stress was majorly a crucial issue among 47.14 % of the nursing staff. 50% of the Nursing staff were impacted by mood swings. A major concern among nurses comprises a major part in the proper functioning of hospitals. Their role is not only professional but also to provide emotional care to the patients. Thus, the stress induced due to work culture should be taken care of so that they can be both physically and mental peace while at work.

### **Conflicts of Interest**

The author declares no conflicts of interest.

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