RESEARCH PAPER

Beyond the White Coat: Occupational Stressors Among Women Faculty Working in a Tertiary Care Teaching Hospital

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ABSTRACT

Background: Women faculty in tertiary care teaching hospitals are exposed to multiple professional responsibilities, including teaching, clinical services, research, and administrative duties, which may contribute to increased stress levels. Understanding the prevalence and factors associated with stress is essential for developing effective interventions.

Objectives: To estimate the prevalence of stress among women faculty in a tertiary care teaching hospital, and to identify socio-demographic and work-related factors associated with stress.

Methods: A cross-sectional study was conducted among Women faculty of a tertiary care teaching hospital in Rajahmundry. A predesigned and pretested structured questionnaire was used to collect demographic details and work-related factors. Data was analyzed by chi-square test to determine associations.

Results: The study revealed that majority (91.32%) of faculty members experienced moderate level of stress. Stress levels were significantly associated with age, marital status, presence of children, designation, Income and teaching experience ($p < 0.05$). Clinical workload (48.70%), emotional demands (39.10 %), academic responsibilities (35.70%), and work–life conflict (34.80%) were the major reported stressors.

Conclusion: A significant proportion of faculty members in a tertiary care teaching hospital experience moderate stress, influenced by both personal and professional factors. Implementing institutional strategies such as equitable workload distribution, flexible work policies, mentorship programs, mental health support, and stress-management interventions may help to reduce stress and improve overall workplace well-being.

Keywords: *Occupational stressors, Stress levels, Women Faculty, Perceived Stress*

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INTRODUCTION

Stress is a state of mental tension or worry triggered by challenging situations and is a natural human response that enables individuals to cope with threats and demands [1]. In recent decades, stress has emerged as a major global health concern. In India, women experience nearly twice the stress levels of men due to the dual burden of professional work and household responsibilities. Work-related stress arises when job demands exceed an individual's abilities or coping resources, resulting in negative psychological and physical consequences [2]. The impact of such stress on working women extends to their families and overall quality of life. Studies indicate that 53% of working women in India experience stress, [3] with prevalence rising to almost 65% among those employed in health-related professional colleges [4]. Similarly, a study from Maharashtra reported that 55% of medical teachers experienced moderate stress [5]. These findings highlight the growing burden of stress among women in academia, particularly in the health sector.

Women faculty in healthcare face additional pressures as they simultaneously manage clinical duties and teaching responsibilities. Balancing these dual roles often leads to increased stress, reduced job satisfaction, and compromised well-being [6]. Evidence shows that the demands of both home and the healthcare work environment adversely affect their quality of life [7]. Despite this, limited research has focused on identifying stressors among female faculty in health institutions. Considering the rising physical, mental, and economic burden posed by stress, and the scarcity of epidemiological data in this group, the present study was conducted to

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assess the prevalence of stress and its associated factors among faculty in a tertiary care teaching hospital.

OBJECTIVES

1. To estimate the prevalence of stress levels among women faculty of a Tertiary care Teaching Hospital.
2. To determine the socio-demographic and work environment factors associated with stress levels among the study participants.

METHODS

Study Design: Hospital based cross-sectional study

Study Setting: A tertiary care teaching hospital, Rajahmundry

Study population: Women faculty from the Medical, Dental, Nursing and Allied and health care colleges of a tertiary care teaching hospital in Rajahmundry, Andhra Pradesh.

Selection Criteria:

Inclusion Criteria: Women faculty working in various departments of the tertiary care hospital, for a minimum duration of three months were included

Exclusion Criteria: Women faculty who were on long leave during the past one month, faculty receiving medication for any diagnosed chronic medical or mental illnesses, those who were unwilling to provide informed consent for participation in the study were excluded from the study.

Sample size: The sample size was calculated using a prevalence of perceived stress of 65% from a previous study[4], applying the formula $n = (Z\alpha/2)^2 pq / L^2$ ($Z = 1.96$, $p = 65$, $q = 35$, $L = 9.75$). The minimum sample size obtained was 91. After accounting for a 20% non-response rate, the sample size was 113, this is rounded to 115, the final sample size.

Study period: The study was carried out over a period of two months, from September to October 2024.

Study tools: A predesigned, pretested structured questionnaire and Perceived Stress Scale (PSS) [8].

Data Collection

Women faculty from the Medical, Dental and Nursing colleges were included in the study. Participants were selected by systematic sampling from a list of 221 eligible women faculty members. Institutional ethical committee approval was obtained from Institutional ethics committee and informed consent was obtained from all participants. Data was collected using a predesigned pretested structured questionnaire and the Perceived Stress Scale (PSS). The questionnaire includes four sections: First section includes socio-demographic details, second section includes work related details, third section includes Perceived stress scale (PSS) fourth section includes an open ended question to report reasons for stress.

Statistical Analysis

The collected data were entered into Microsoft Excel and analyzed using the same software. Categorical variables were summarized as frequencies and percentages. The chi-square test was employed to assess the association between stress and related factors, with a p-value of less than 0.05 considered statistically significant.

Results

In this study, a total of 115 participants were evaluated. The mean age of the participants was found to be 35.83 + 12.92 years.

Table-1: Socio-demographic Characteristics of Study participants (n = 115)

Variable	Sub group	n=115 n (%)
Age category (in yrs)	21-30	21 (18.3)
	31-40	52 (45.2)
	41-50	23 (20)
	51-60	11 (9.6)
	≥ 60	08 (7.)
Marital Status	Married	96 (83.5)
	Single	19 (16.5)
Children	Yes	80 (69.6)
	No	35 (30.4)
Family Type	Joint	33 (28.7)
	Nuclear	77 (67)
	Extended	5 (4.3)
Family Size	2	6 (5.2)
	3-4	63 (54.8)
	5-6	40 (34.8)
	>6	6 (5.2)
Residential Area	Urban	72 (62.6)
	Semi Urban	26 (22.6)
	Rural	17 (14.8)

Table 1 shows that the majority of participants (45.2%) were in the 31–40 years age group. More than three-fourths (83.5%) were married, and nearly 70% had children. Additionally, over half of the participants (62.6%) were from urban areas.

Figure 1: Distribution of Participants by Designation (n = 115)

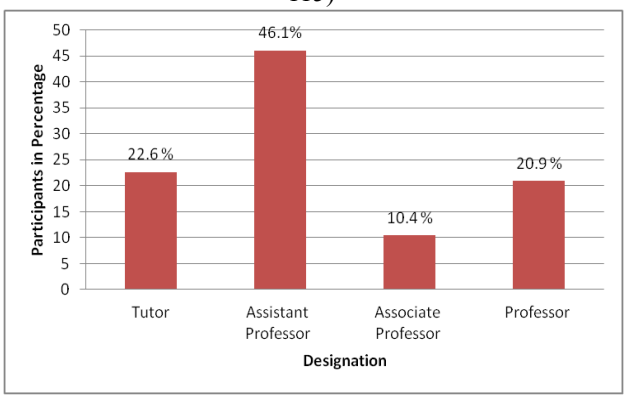

Figure 2: Distribution of Participants by Department (n = 115)

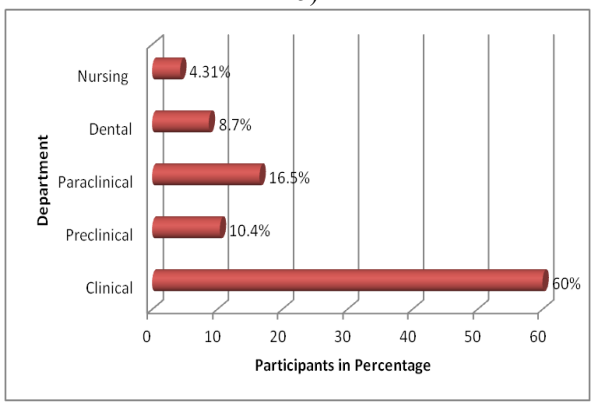

Fig. 1& 2: summarizes the distribution of participants by designation and department. Nearly half were Assistant Professors, and the majority were from clinical departments, with smaller numbers from preclinical, paraclinical, dental, and nursing departments.

Figure 3: Prevalence of Stress levels among women faculty

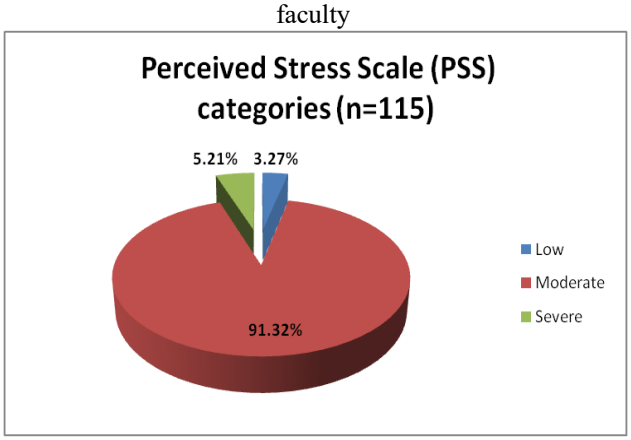

Figure 3 represents that nearly all faculty experienced stress, with the majority (91.32%) reporting moderate level stress.

Table 2: Association of Perceived Stress Levels with socio-demographic factors (n = 115)

Variable	Category	Low n=4 n(%)	Moderate n=105 n(%)	Severe n=6 n(%)	Total n=115	Chi-square value	p-value
Age	≤ 40 yrs	3 (75)	69 (65.7)	1 (16.7)	73	6.13	0.04*
	> 40 yrs	1 (25)	36 (34.3)	5 (83.3)	42		
Marital Status	Married	2 (2)	93 (93.9)	4 (4)	99	6.78	0.03*
	Single	2 (12.5)	12 (75)	2 (12.5)	16		
Children	Yes	2 (2.4)	80(95.2)	2 (2.4)	84	6.41	0.04*
	No	2 (6.5)	25 (80.6)	4 (12.9)	31		
Family Type	Nuclear	2 (2.6)	72 (93.5)	3 (3.9)	77	5.45	0.24
	Joint	1 (3.1)	29 (90.6)	2 (6.3)	33		
	Extended	1 (16.7)	4 (66.7)	1 (16.7)	5		
Family Size	≤ 2	1 (10.0)	8 (80.0)	1 (10.0)	10	9.90	0.12
	3-4	1 (1.6)	61 (96.8)	1 (1.6)	63		
	5-6	1 (2.8)	32 (88.9)	3 (8.3)	36		
	>6	1 (16.7)	4 (66.7)	1 (16.7)	6		

* $p < 0.05$ considered statistically significant.

Table 2 demonstrates that statistically significant association was observed between stress levels and age, marital status, and the presence of children

Table 3: Association between selected work-related characteristics and perceived stress levels (n = 115)

Variable	Category	Low n=4 n(%)	Moderate n=105 n(%)	Severe n=6 n(%)	Total n=115	Chi-square value	p - value
Health-care professionals	Medical	2 (2)	96(96)	2 (2)	100	23.47	1.01
	Dental	1 (10)	6 (60)	3 (30)	10		
	Nursing	1 (20)	3 (60)	1 (20)	5		
Designation	Tutor	1 (4.3)	21 (91.3)	1 (4.3)	23	14.45	0.02*
	Assistant Professor	1 (1.4)	68(97.1)	1(1.4)	70		
	Associate Professor	1 (16.7)	4 (66.6)	1(16.7)	6		
	Professor	1 (6.3)	12 (75)	3 (18.7)	16		
Income per month	< 1 lakh	2 (2.4)	80 (95.2)	2 (2.4)	84	6.41	0.04*
	>1 lakh	2 (6.5)	25 (80.6)	4 (12.9)	31		
Experience in	<1 yr	1(1.3)	71(94.7)	3 (4.0)	75	6.8	0.34

present Organization	1-5 yrs	1(7.7)	11 (84.6)	1 (7.7)	13		
	6-10 yrs	1(7.7)	11(84.6)	1 (7.7)	13		
	>10yrs	1 (7.1)	12 (85.6)	1 (7.1)	14		
Total teaching experience	<1yr	1 (1.5)	65 (97)	1 (1.5)	67	13.11	0.01*
	1-5yrs	1 (3.1)	29 (90.6)	2 (6.3)	32		
	>5yrs	2(12.5)	11 (68.8)	3 (18.7)	16		

* $p < 0.05$ considered statistically significant.

Table 3 shows that stress levels were significantly associated with designation, monthly income, and total teaching experience ($p < 0.05$).

Table 4: Association of Perceived Stress levels with Occupational and Travel-related Factors

Variable	Category	Low n=4 n(%)	Moderate n=105 n(%)	Severe n=6 n(%)	Total n=115	Chi-square value	p-value
Distance from work place	<1km	1 (25.0)	51 (48.6)	1(16.7)	53	5.70	0.22
	1-5 km	1 (25.0)	38 (36.2)	3(50.0)	42		
	>5km	2 (50.0)	16 (15.2)	2 (33.3)	20		
Mode of transport	Walking	1(25.0)	19 (18.1)	1 (16.7)	21	2.89	0.82
	Own Vehicle	1 (25.0)	55 (52.4)	3 (50.0)	59		
	Public Transport	1 (25.0)	21 (20.0)	1 (16.7)	23		
	Institutional vehicle	1(25.0)	10 (9.5)	1 (16.7)	12		
Faculty development programmes	Yes	1 (25.0)	53 (50.5)	2 (33.3)	56	1.24	0.54
	No	3 (75.0)	52 (49.5)	4 (66.7)	59		
Additional responsibility	Yes	2 (50.0)	19 (18.1)	2 (33.3)	23	2.67	0.26
	No	2 (50.0)	86 (81.9)	4 (66.7)	92		

Table 4 shows no statistically significant association between stress levels and distance from the workplace, mode of transport, participation in faculty development programmes, or additional responsibilities ($p > 0.05$).

Table 5: Distribution of reported Stressors among Women Faculty (n = 115)

Stressor	Frequency (n=115)	Percentage (%)
Clinical work load	56	48.70%
Teaching work load	41	35.70%
Role overload	41	35.70%
Academic pressure	41	35.70%
Administrative stress	26	22.60%
Interpersonal & social stress	40	34.80%
Work- life conflict	40	34.80%
Emotional demands	45	39.10%
Job insecurity	41	35.70%
Target time pressure	41	35.70%

Note: Multiple responses were given by participants

Table 5 depicts the distribution of reported stressors among women faculty. Clinical work load pressure was the most commonly reported stressor (48.7%), followed by emotional demands (39.1%), while administrative stress was the least frequently reported stressor (22.6%).

DISCUSSION

The present study was designed to assess prevalence of stress levels, and to determine the socio-demographic and work environment factors associated with stress levels among the women faculty. In the present study, the socio-demographic profile indicates that 45.2% participants were between 31–40 years of age, suggesting that most women faculty were in their peak productive years. Furthermore, 83.5% of participants were married, and nearly 70% had children, reflecting the predominance of individuals in the active reproductive and family-responsible age group. Similar findings were reported in a study by Parashar M et al. [4] In this study, 63% of participants resided in urban areas. Urban faculty frequently encounter commuting-related stress, including heavy traffic congestion, long travel durations, unpredictable road conditions, and restricted parking facilities near tertiary hospitals. Such challenges contribute to daily fatigue, reduced family time,

and worsening work–life imbalance, thereby exacerbating chronic stress.

Based on the study findings, nearly all faculty experienced stress, with the majority (91.32%) reported moderate stress levels, and a low proportion of 5.21% reported high stress levels. These findings are consistent with the findings of Sidhu et al, [9] but differ from the study by Anil H. et al., [10] who reported that only 31% experienced moderate stress, while 7.2% and 4.5% had severe and potentially dangerous stress levels. Differences in stress measurement scales, study settings, and social and cultural contexts may account for the observed discrepancy.

Age showed a statistically significant association with stress levels ($p = 0.04$). Severe stress was predominantly observed among participants aged ≥40 years (83.3%), whereas moderate stress was more frequent in those aged ≤40 years (65.7%). This aligns with an earlier study [4] showing that majority (64.4%) of working women reported stress. Similarly, Sidhu et al. [9] found elevated stress among faculty in the early stages of their careers. Younger faculty often experience stress related to workload, career progression pressures, job insecurity, publication requirements, and challenges in maintaining work–life balance.

Regarding marital status, the present study found a statistically significant association with stress levels. This finding is supported by a study from South-East Nigeria, [11] which reported that women whose spouses lived elsewhere experienced higher stress levels than single women, indicating the substantial role marital status may play in stress burden. The association between stress and the presence of children was found to be significant. This finding aligns with an earlier study [12]. In the current study, the reasons could be that married female faculty often experience considerable stress due to the demands of balancing professional duties with childcare, household responsibilities, time constraints, limited support, and workplace expectations. These combined pressures frequently lead to burnout and emotional fatigue. However, contrary to this, another study [13] reported no significant association between marital status and stress. Differences in population characteristics, cultural norms, sample sizes, and stress-assessment tools may account for the inconsistent findings.

The present study also demonstrated a statistically significant variation in stress across academic designations, suggesting that job position strongly influences stress levels. This is in concordance with the study conducted by Anil H. et al., [10]. Their study reported higher stress among junior-level faculty; contributing factors include heavier teaching loads, limited autonomy, administrative pressures, and the challenge of balancing professional and personal responsibilities.

The present study demonstrated that women faculty experienced multiple occupational stressors. Clinical workload emerged as the most frequently reported stressor, followed by emotional demands and academic responsibilities, including teaching workload, role overload, academic pressure, job insecurity, and target-based time pressure. The predominance of clinical workload as a major stressor in the present study is consistent with study by Kumar et al. [14] reported that excessive workload and time pressure were the principal contributors to stress among faculties. Nearly one-third of participants also reported work–life conflict and interpersonal or social stress, indicating challenges in balancing professional commitments with personal responsibilities. Although administrative stress was reported less frequently, it nevertheless contributed to the overall burden. As participants reported more than one stressor, the findings suggest that occupational stress among women faculty is multifactorial in nature, resulting from the combined impact of clinical, academic, organizational, and psychosocial demands rather than a single isolated factor.

RECOMMENDATIONS

- Regular screening and early identification of stress among faculty
- Faculty wellness programmes with counselling and stress-management training
- Rational distribution of clinical, teaching, and administrative workload
- Flexible working hours and supportive maternity/leave policies
- Childcare support to reduce work–life conflict
- Reduction of administrative and documentation burden
- Supportive leadership and clear role definition in the workplace
- Career development opportunities and research support
- Mentorship and coping-skill training for junior faculty

LIMITATIONS OF THE STUDY

This study was based on self-reported data, which may introduce response bias. Conducted at a single tertiary care teaching hospital, the findings have limited generalizability. The cross-sectional design precludes assessment of long-term stress effects, cultural factors may have influenced reporting, and the absence of a male comparison group restricts gender-specific interpretation.

CONCLUSION

Occupational stress was highly prevalent among women faculty in tertiary teaching hospitals, with most (91.32%) experiencing moderate stress levels. Stress was significantly associated with age, marital status, designation, specialty, and teaching experience, highlighting the role of both personal and professional factors. Major stressors included clinical workload, emotional demands, academic responsibilities, and work–life conflict. Overall, occupational stress was multifactorial, influenced by clinical, organizational, and psychosocial factors. Supportive institutional policies and

targeted interventions are necessary to improve faculty well-being, job satisfaction, and the quality of academic and patient care.

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Authors' Contribution
All authors contributed equally to this work. All authors have read and approved the final manuscript.

Conflicts of Interest
There are no conflicts of interest.

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