

Prevalence of Stress among Resident Doctors Working in Tertiary Care Hospital of Western Maharashtra

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Abstract: A cross-sectional study was conducted from September 2017 to December 2017 in tertiary care hospital of western Maharashtra. Study subjects comprised 127 resident doctors. The total prevalence of stress was found to be 32.28% in resident doctors from all colleges. Out of 127 resident doctors, 26 (26.2%) had mild stress, 15 (11.01%) had moderate stress, and 09 (7%) were severely stressed. Certain important factors associated with stress are included long duty hours, reduced sleep, work in particular department, years of residency. Important factors significantly associated with type of departments and not having friends or peer group.

Keywords: Resident Doctors, Tertiary Care Hospital, Western Maharashtra

1. Introduction

Occupational stress is skills, capabilities, and competencies. High stress and burnout have the potential to negatively impact on working performance as well as patient care, including medication errors, suboptimal care, clinical errors, and patient dissatisfaction this group. Because of nature of their professions, the mental health of doctors is not only of concern to them, but also is of concern to the greater society served by them [1].

Out of many groups who are affected by such emotional states and disorders, doctors especially the resident doctors comprise an important group because of the unique environment in which they work [2]. Various factors responsible for stress are high work load, lack of sleep, type of department works, presence of peer groups, year of residency.

In India some studies have been done on stress in medical students, but actually very few studies have been done to assess the emotional disturbances among resident doctors [7]. This study was planned to find the prevalence of stress and the factors associated with these emotional disorders in resident doctors working in medical colleges and tertiary Care hospital of Maharashtra.

2. Aim and Objective

- 1) To determine prevalence of stress among resident doctors of western Maharashtra.
- 2) To find certain factors associated with stress among resident doctors.

3. Methodology

Study Design

The cross sectional study was conducted. The data collection was carried out between September 2017 and December 2017. The study area of the present study was various departments of tertiary care hospital and medical college. 127 resident doctors are invited to take part in

study from tertiary care hospital of western Maharashtra by inclusion and exclusion criteria.

Data Collection

A pre-tested open ended and self-prepared questionnaire was used for data collection. The questionnaire included data on sociodemographic profile, residency characteristics (department and year), diseases or symptoms experienced by medical residents in the last year, workload (number of inpatients and outpatients treated per day, sleep duration, and quality), recently faced stressors (work related and non-work related) and job satisfaction. Validity of proforma checked from pilot study. DASS (Depression Anxiety Stress Scale), to elicit the presence of stress, anxiety, and depression in the study population. 42 items-DASS a self-report instrument designed to measure the three related negative emotional states of depression, anxiety, and stress. It includes 14 items for each stress, anxiety and depression. Every item has to be rated by a four-point rating scale. Rating scale is as follows: 0 (did not apply to me at all), 1 (applied to me to some degree, or some of the time), 2 (applied to me to a considerable degree, or a good part of time), and 3 (applied to me very much, or most of the time).

Inclusion Criteria

- 1) All resident doctors willing to participate
- 2) Resident doctors present in two subsequent visits

Exclusion Criteria

- 1) Resident doctors shows unwillingness in study
- 2) Those not present in two subsequent visits.

Statistical Analysis

Data thus collected and transferred to a computer based Microsoft Excel. It also used to analyze data with appropriate statistical tests (including Chi-square test).

4. Results

The overall prevalence of stress was found to be 32.28 % in resident doctors from all colleges. Out of 126 resident doctors, 26 (20.02%) had mild stress, 15 (11.01%) had moderate stress, and 09 (7.01%) were severely stressed (Table no.1)

Figure 1: Prevalence of stress among resident doctors in western Maharashtra.

Type of stress	No. of Individuals	Percentage
Normal	81	62.08%
Mild	26	26.02%
Moderates	15	11.01%
sever	09	7.01%
Total	127	100%

Table No. 2 provides information with male residents having 58% prevalence as compare to 42% infemale residents. Residents less than 30 years (64%) have more stress than residents 30 year and above (36%).

Residents in clinical branches (84%) have more prevalence than non clinical braches (16%). Residents with more night shift have more stress (80%). Those having less sleeping hours have more stress (72%).

Figure 2: Factors associated with stress among resident doctors.

	Normal Residents (n=77).	Residents With stress (n=50)	
Gender			
Male.	41(55%).	29(58%)	p=4.451
Female.	36(46.76%).	21(42%)	Not significant
Age			
<30.	49 (63.63%).	32(64%)	p=3.20
>30	28(36.36%).	19(36%)	Not significant
Speciality.			
Clinical.	65(84.4%).	42(84%)	p=0.04
Non-clinical.	14(18.18%).	8(16%)	Significant
Close friends/Peer Groups			
Yes.	48(62.33%).	7(14%)	p=0.001
No.	12(15.58%).	43(86%)	Highly significant
Nightshift per month			
1-5.	62(80.57%).	40(80%)	p= 2.10
More than 5.	15(19.48%).	10(20%)	Not significant
Sleeping Hours			
Less than 5 hours	24(31.18%).	14(28%)	p= 3.59
More than 5 hours	53 (68.8%)	36(72%)	Not significant
Year of Residency			
1st year	18(37.50%)	30(62.50%)	
2nd Year	20(52.69%)	18(47.36%)	p=4.41
3rd year	30(72.5%)	11(27.50%)	Not significant

5. Discussion

The prevalence rate of stress among residents was found 32.8% in study of Saini NK, et al in medical colleges of delhi7. In study of Pinto et al. in their prevalence was 80% among junior residents of Goa Medical College.

Studies in some foreign country like Cohen et al. reported a stress prevalence of 34% among resident doctors in Canada. In 2004, Sargent et al.10 in their study in USA in

2004 also reported 33% stress among resident doctors. These findings were similar findings of our study.

Among various factors type of departments and association with peer or friends are significantly associated in our study.

6. Recommendations

Reduction in stress enhances functional capacities of resident doctors. Various training for yoga, pranayama, meditation for 30 minutes may be useful. Also, avoidance of unhealthy diet, addiction may be helpful. Association with friends and peer group is significantly important. Adequate sleep should be taken whenever possible.

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