



## Stress and Burnout in Postgraduates in a Medical College

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### Abstract

**Introduction:** *Medicine is associated not only with a great degree of both personal and professional satisfaction, but also a high level of occupational stress and burnout. Resident doctors/trainees and faculty members, are prone to developing mental health problems such as depression, anxiety, and substance abuse*

### Objectives:

1. To understand the domains most affected with burnout and stress
2. To compare stress levels among postgraduates of various years and specialties

**Methods:** *Postgraduates (MD/MS/Diploma) from batches 2016,2017 and 2018 were given the self administered questionnaires-cohen's perceived stress scale and copenhagen burnout inventory –personal, work and client burnout after institutional ethical approval along with dean's approval and informed consent*

**Results:** *Highest perceived stress was seen in general surgery residents (mean score of 22) While the least was seen in Ophthalmology residents (score of 14)*

*Maximum personal burnout was seen in General surgery residents (ie.73.9 %) followed by OBG and paediatrics whereas work burnout was again highest in general surgery(65.1%) followed by orthopaedics and paediatrics .client burnout, OBG(80.33) was the highest followed by general surgery (51.1%) Perceived stress was higher among the juniors when compared to the seniors.*

**Conclusion:** *Stress and Burnout was more in surgical than medical fields. Stress is one of the major growing mental problems among highly educated health professional and it should not be ignored as it can cause many other health issues. Institutions and national policy makers should take into account this unsettling issue of burnout in doctors -especially residents and implement preventive strategies*

**Keywords:** *Stress, Burnout, Postgraduates.*

### Introduction

Studies across the world suggest that health-care professionals, especially resident doctors/trainees and faculty members, are prone to developing mental health problems such as depression, anxiety,

and substance abuse. It is Often attributed to the requirement of dedication and precision on the part of the health-care providers<sup>1</sup>. The need for urgent care and long hours at work further add to the stress. Long-standing stress in medical professionals

can often lead to burnout<sup>2</sup>. Internship and residency are difficult times with novice practitioners facing new challenges and stressors<sup>3</sup>. Sources of such stress in resident training can be divided into three components: situational (workload, sleep deprivation, and poor learning environment); personal (family, isolation, and financial); professional (overwhelming patient responsibility and information). Burnout is a syndrome that encompasses three dimensions: emotional exhaustion, depersonalisation and reduced personal accomplishment. It can be a jeopardizing condition for a medical graduate during the years of acquiring proficiency<sup>4</sup>

### Objectives of the Study

- To understand the domains most affected with burnout and stress
- To compare stress levels among postgraduates of various years and specialties

### Methodology

248 Postgraduates from 2016, 2017 and 2018 were given the self administered questionnaires – Cohen's Perceived stress scale and Copenhagen burnout inventory (3 domains –personal, work and client) after informed consent, permission from the dean and ethical clearance. The Inclusion criteria - Medical Postgraduates from clinical, paraclinical and preclinical branches and Exclusion criteria: Undergraduates and allied health postgraduates those with a prior/current history of psychiatric illness were excluded

### Scales

1. Perceived stress scale (PSS) is the most widely used 10 item instrument for measuring the perception of stress and is designed to measure the degree to which situations in one's life are appraised as stressful. The tool, while originally developed

in 1983, remains a popular choice for helping us understand how different situations affect feelings and perceived stress. The questions in this scale ask about feelings and thoughts during the last month.<sup>5</sup>

2. Copenhagen Burnout Inventory (CBI) is a reliable and validated 19-item questionnaire. It focuses on exhaustion and its attribution by the person. The CBI has scales on personal burnout, work-related burnout and client-related burnout. All items have five response categories in a Likert scale. CBI was chosen over Maslach Burnout Inventory (MBI) as it was found to have similar psychometric properties and was available for free<sup>6</sup>.

### Statistical Analysis

Data was analysed by frequency distribution, mean, median and standard deviation using SPSS Version 23

### Results

The response rate was 22% that is around 56 postgraduates responded. Responses were received from ENT, dermatology, anaesthesiology, Medicine, General Surgery, Microbiology, OBG, Ophthalmology, Orthopedics, Radiology, Paediatrics, Pathology, Pharmacology and Psychiatry.

No responses were received from radiotherapy. There were no postgraduates in the preclinical departments

Highest perceived stress was seen in general surgery residents (mean score of 22) While the least was seen in Ophthalmology residents (score of 14) (Fig 1). Perceived stress was higher in juniors when compared to the seniors (Fig 2)

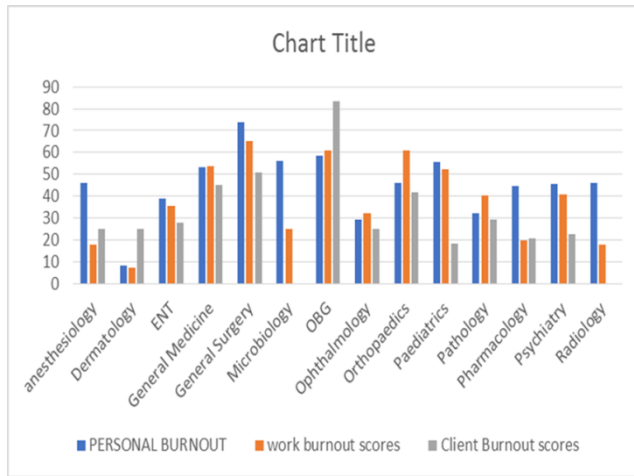


Fig 1



Fig 3

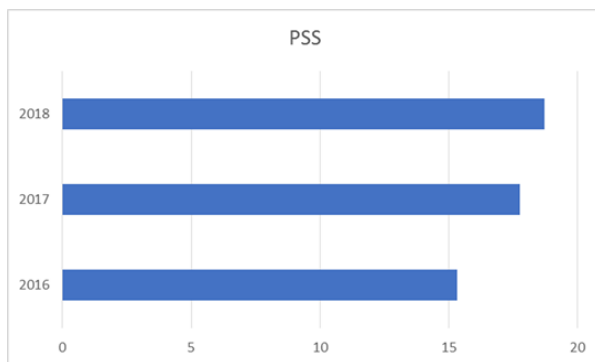


Fig 2

Maximum personal burnout was seen in General surgery residents (ie.73.9 %) followed by OBG and paediatrics. work burnout was again highest in general surgery (65.1%) followed by orthopaedics and paediatrics .client burnout –OBG (80.33) was the highest followed by general surgery (51.1%) (Fig 3)

**Sociodemographic data**

67.9% were females, rest were males .87.5% had done their undergraduation from a private medical college.Only19.6% were married, mean age of the postgraduate was about 27 years .69.6 % of the Postgraduates had moderate stress levels .46.4% had personal burnout (>50score), 42.9% had work burnout and 21.4% had client burnout .46.4 responses were from 2017 batch followed by 2018(32.1%). 73.2 % were MD candidates followed by MS candidates (16.1%)

The mean scores of burnout out are given Fig 4

Statistics						
	Age	total score	personal burnout scores	work burnout scores	Client Burnout scores	
N	56	56	56	56	56	56
Mean	27.00	17.55	47.916667	42.878342	32.068440	
Median	26.50	18.00	45.833333	42.857143	29.166667	
Std. Deviation	1.888	5.711	18.8695683	21.5944216	22.9997770	
Minimum	23	6	.0000	.0000	.0000	
Maximum	32	31	91.6667	92.8571	100.0000	

### Discussion

Our Study Was Comparable to a study by B ratnakaran et al that is Non Medical/Non Surgical residents had the least prevalence of burnout in all three dimensions, whereas surgical specialty residents had the highest personal burnout (57.92%)<sup>7</sup> The mean PSS was around 17.5 which was lower than a Saudi study done by Fahad et al which reported a mean score of 22<sup>8</sup> The perceived stress among residents in the current study appeared to be comparable to or slightly lower than the perceived stress reported among residents in other parts of the world. Our study four -fifth had a moderate to low stress level as compared to a study which had four-fifth of the participants report moderate-to-high stress levels. Study done by Datar M et al used the PSS, assessment of the domains of the stressors revealed 88% reported stress about their academic performance, 83% residents had stress due to responsibilities at workplace, 77.5% were stressed about their future career, 66% reported stress due to interpersonal problems at work, 45.5% had stress of personal relationships, 39.5% had stress related to financial issues, and 36.5% reported stress due to family problems.<sup>9</sup> Yusoff and Rahim et al also stated that the major stressors in postgraduate medical training were related to academic and performance pressure<sup>10</sup>. No studies exclusively on postgraduate burnout using CBI were found

### Conclusion

Stress and Burnout was more in surgical than medical fields. One of the major growing mental problems among highly educated health professional and it should not be ignored as it can cause many other health issues. Institutions and national policy makers should take into account this unsettling issue of burnout in doctors -especially residents and implement preventive strategies

### Limitations

The response rate to the survey was only 22% as many feared repercussions of their identity possibly being disclosed to their respective departments. Lack of interest in participating in the study Study has not taken into account factors such as patient load and average working hours with respect to different departments

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