Original Research Article

Incidence Of Burnout in Medical Interns: A Cross-Sectional Study

Sanjana Patil[1], Sumati Arikera[2], Chandrashekhar T R[3]

[1]MBBS (III/II), Belagavi Institute of Medical Sciences, Belagavi, 590001
[2]Assistant Professor, Department of Psychiatry, BIMS, Belagavi
[3]Professor and HOD, Department of Psychiatry, BIMS, Belagavi
Corresponding author: Sanjana Patil
Email – sanjana01patil@gmail.com

ABSTRACT

Background: This study was aimed to assess incidence of burnout among medical interns in a Medical College Belagavi, Karnataka in India. Burnout, a psychological syndrome characterised by emotional exhaustion, depersonalization, and low personal accomplishment, is a major concern in high-stress professions. Our study explored the prevalence of burnout and its dimensions, taking gender variations into consideration.
Methodology: A survey was conducted among 64 medical interns. Subjects filled out a pretested questionnaire consisting of demographic data and measures of assessment. Burnout was assessed using the Burnout Assessment Tool. Total burnout scores categorised participants as having burnout, symptoms of burnout, or no burnout.
Results: Mean age of sample was 23.4 years. 56.25% were males and 43.75% were females. Burnout syndrome was found to be present in 29.68% of interns, while 34.37% displayed symptoms of burnout. Although gender differences were insignificant for total burnout, the emotional impairment dimension showed significant variations. Detailed analysis revealed no significant gender difference in exhaustion, mental distance, or cognitive impairment dimensions.
Conclusions: This study showed that medical interns experience burnout, with emotional impairment showing significant gender difference. It emphasises the need for healthcare institutions to recognize and address burnout in medical interns. While the study provides valuable insights, it is limited due to its institutional nature and convenient sample, warranting further research for better understanding of burnout's causes, consequences, and preventive measures.
Keywords: burnout syndrome, medical interns, gender differences, burnout, exhaustion.

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INTRODUCTION

Burnout is a psychological syndrome characterised by emotional exhaustion, depersonalisation (negative attitude towards the patient) and feelings of low personal accomplishment [I]. The term was first introduced by Herbert Freudenberger in 1974, where he described burnout as chronic fatigue and lack of enthusiasm resulting from long term stress [2]. Later in 1981, Maslach and Jackson gave a detailed description of burnout syndrome and formulated the most widely accepted instrument to measure it, Maslach Burnout Inventory [3]. Burnout is now included under occupational phenomenon in ICD-11 but is still not considered as a mental disorder [4].

Medical profession is known to be very stressful. Furthermore, physicians and interns are predisposed to burnout owing to long working hours, competitive environment, lack of proper balance between professional and personal life, financial problems, uncertain future, emergency situations [5]. Studies have reported that prevalence estimates of burnout in physicians stands at 67%. Overall burnout prevalence ranged from 0-87% [6]. Burnout can have a negative influence on the healthcare system. Studies have reported that burnout leads to decreased productivity, reduced job satisfaction, increased risk of medical

errors, decreased patient satisfaction and also manifests itself in physical and psychological issues like exhaustion, social withdrawal, absenteeism, low morale, inability to regulate emotions [7-8].

Medicine being one of the most demanding professions, understanding and examining burnout becomes very important to create a better working environment and to bring a balance between personal and professional life. And yet there is a lack of studies assessing burnout in medical interns in India. Thus, we planned a study with the objective of assessing the incidence of burnout in interns of a government medical college in Belagavi.

METHODOLOGY

A survey was conducted at Government medical college, Belagavi, Karnataka in India following permission from the ethical committee in August 2023. The sample consisted of 64 medical interns recruited through convenient sampling. All the subjects filled a pretested questionnaire consisting of demographic data and measures of assessment. Burnout was assessed by application of Burnout assessment tool [9]. It is a 22-item self-report questionnaire with 4 core dimensions: exhaustion (EX), mental distance (MD), emotional impairment (EI) and cognitive impairment (CI). Possible answers were categorised into 5 categories (1-never, 5- always). Total score for each dimension is categorised 'low', 'average', 'high', or 'very high' according to the determined cut-off scores [9]

- Exhaustion: ≤1.75= low, 1.76-2.70= average, 2.71-3.74= high, ≥3.75= very high
- Mental distance: ≤1.20= low, 1.21-2.40= average, 2.41-3.59= high, ≥3.60= very high
- Emotional impairment: ≤1.20= low, 1.21-2.19= average, 2.20-3.19= high, ≥3.20= very high
- Cognitive impairment: ≤1.80= low, 1.81-2.59= average, 2.60-3.39= high, ≥3.40= very high.

Total score for burnout was also categorised as ≤1.60= low, 1.61-2.40= average, 2.41-3.29= high, ≥3.30= very high with burnout seen in people scoring very high, symptoms of burnout seen in people scoring high and no burnout in people scoring low and average.

Statistical analysis was performed with SPSS version 23. Descriptive statistics, t test and Mann Whitney test was applied. P values lower than 0.05 were considered as statistically significant.

RESULTS

Out of 64 interns, 36 (56.25%) are males and 28 (43.75%) are females. The mean age of the sample was 23.4 yrs (SD ± 0.82). 87.5% worked as interns for <6 months and 12.5% worked for >6 months. 53.125% of sample worked for more than 12 hrs a day, 29.69% worked for 8-12 hrs and 17.19% worked for less than 8 hrs with average sleeping hrs being 4-6 hrs in 62.5% of sample and about 18.75% slept for <4 hrs and >6 hrs respectively.

As per the definition taken for the study, burnout was present in 29.68% of the sample and symptoms of burnout were present in 34.37% of the sample. Table 1 shows burnout dimensions scores categorised as low, average, high, very high.

Table 1: Burnout dimension scores

Burnout Level	Exhaustion	Mental Distance (%)	Emotional Impairment (%)	Cognitive Impairment (%)
Low	6.25	7.81	9.37	28.12
Average	26.56	37.50	20.31	18.75
High	32.81	34.37	31.25	23.43
Very High	34.37	20.31	39.06	29.68

In the exhaustion dimension, 6.25% scored low, 26.56% scored average, 32.81% scored high and 34.37% scored very high. In the mental distance dimension, 7.81% scored low, 37.50% scored average, 34.37% scored high and 20.31% scored very high. In the emotional impairment dimension, 9.37% scored low, 20.31% scored average, 31.21% scored high and 39.06% scored very high. In cognitive impairment dimension, 28.12% scored low, 18.75% scored average, 23.43% scored high and 29.68% scored very high.

Out of the total sample, 12 out of 36 males and 7 out of 28 females exhibited burnout and 12 out of 36 males

and 10 out of 28 females showed symptoms of burnout as per the definition taken. Table 2 shows Burnout comparison among two genders, which was statistically insignificant (p=0.311). Table 3 shows burnout dimensions group comparison by gender which came out to be insignificant for exhaustion, mental distance and cognitive impairment (p>0.05).

But there was significant variation among two genders in emotional impairment dimension (p <0.05) . 't' test is applied when the data is normal and the Mann Whitney 'U' test is applied when the data is not normal. Exhaustion by gender (p=0.51), emotional impairment by gender (p=0.013), mental distance by gender (p=0.102), cognitive impairment by gender (p=0.773).

Table II. Burnout comparison with gender

	Significance p value (t test)		Significance (Mann Whitney test)
EX dimension by gender	0.51	MD dimension by gender	0.102
EI dimension by gender	0.013	CI dimension by gender	0.773

DISCUSSION

This survey was conducted to estimate the incidence of burnout among interns of a Government Medical College in Belagavi, Karnataka in India. 29.68% of the sample had burnout and 34.37% showed the symptoms of burnout on different occasions and there was no significant gender difference among the burnout rates. Though one of the dimensions, emotional impairment showed significant variations among both the genders. This may be due to gender differences in emotion regulation [10].

Burnout showed insignificant differences among the genders in this study and showed no association with other socio demographic data like age, time since joining internship, number of working hours per day. Some of the previous studies show significantly high burnout among the females [11] while some show no gender associations [5]. Total burnout scores were taken as the defining criteria for burnout and a significant number of subjects showed either burnout or symptoms of burnout. This may be attributed to demanding work hours, excessive workload, long shifts, lack of work life balance and career stress. The implications of burnout in medical interns are beyond personal wellbeing, they have consequences on patient care. Fatigue, decreased empathy, indifference and impaired. Cognitive function compromises the quality of care provided to the patients and increases the risk of medical errors. To address the significant prevalence of burnout and symptoms observed among the physicians, interventions become a necessity. Reasonable working hours, establishing support systems, workload management, and clear career development paths can help maintain a healthier work-life balance. However, there are limitations with this study as the results cannot be generalised since is was an institutional study with convenient sample and response bias could not be ruled out.

CONCLUSIONS

This study showed that the medical interns also experienced burnout. Although the total burnout showed no significant gender difference, the emotional impairment dimension had higher burnout levels in females. Healthcare institutions should take measures to recognise burnout and formulate standards to support mental and emotional wellbeing of medical interns. Further research and studies in this area are essential to understand the cause, consequence and preventative measures regarding burnout.

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