

Original Research Article

## Job Stress among Interns of a Tertiary Care Hospital in Central India

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**Abstract:** Internship is the transition period from being a medical student to becoming a junior doctor. Increased responsibility for patient care; long working hours and preparation for postgraduate medical entrance examination create stress among interns. To assess level of job stress, job satisfaction and coping strategies adopted by interns of a tertiary care hospital of central India. Present observational descriptive cross-sectional study was conducted from January 2015 to March 2016 among 168 interns at Government Medical College, Nagpur using self-administered HCJSSQ questionnaire. Of 168 studied subjects, 91.6% perceived their work stress to be very high and only 30.7% of the respondents reported being completely satisfied with their job, prime cause of stress was underpayment among 91.1% of respondents, Having good relations with parents was satisfying for 75.6% of the respondents, Majority of respondents chose to cope with job stress through conversations with partner / friends/family (71.4%). The findings clearly highlight the importance of developing appropriate policy by medical educators to reduce stress among interns so as to, improve their learning outcome, and patient care.

**Keywords:** Internship, Stress, Satisfaction, Coping strategy, HCJSSQ.

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### INTRODUCTION

The Medical Council of India describes internship as “Internship is a phase of training wherein a graduate is expected to conduct actual practice of medical and health care and acquires skills under supervision so that he/she may become capable of functioning independently.” Every candidate will be required after passing the final MBBS examination to undergo compulsory rotational internship to the satisfaction of the College authorities and University concerned for a period of 12 months so as to be eligible for the award of the degree of Bachelor of Medicine and Bachelor of Surgery (MBBS) and full registration [1]. It begins just after the completion of medical school, and it is a year of tremendous changes. The internship is a kind of experiential learning during which recent graduates take the opportunity to apply acquired knowledge and skills from their medical school training to real-world situations, and it provides an opportunity for medical graduates to integrate and consolidate their thinking and actions [2]. Internship is the transition period from being a medical student to becoming a junior doctor, and it typically entails considerable stress. Before their internship, medical students tend to

be observers on clinical rotations and attend classroom lectures; interns, however, bear responsibility for primary care and have to work with multidisciplinary teams [3]. Interns are expected to assume significant responsibility for patients care during their clinical postings, including being able to confidently communicate with patients and their family members [4]. In the present study, attempts have been made to investigate the prevalence of stress, satisfaction, coping strategies among interns in a Government Medical College, Nagpur.

### MATERIAL AND METHODS

Present observational descriptive cross-sectional study was conducted from January 2015 to March 2016 among 168 of 172 newly male and female interns during their final month of one year rotating internship for academic year 2015–2016 at Government Medical College, Nagpur. The self-administered questionnaire used for the study was adapted from The Hospital Consultants’ job Stress and Satisfaction Questionnaire (HCJSSQ), 2002 customized by appropriate selection of questions [5]. The questionnaire consisted of 21 questions on sources of

stress, 13 questions on factors contributing to job satisfaction and 16 questions on methods adopted for coping stress. All participating interns were informed regarding objective of the present study and written informed consent was obtained. They were asked to rate each item on a scale of 0 (not at all), 1 (a little), 2 (quite a bit), 3 (a lot). Global rating of stress and satisfaction was also obtained. Data were entered in Microsoft Excel and analysed using SPSS ver. 20.

**RESULTS**

The study group comprised of 168 medical interns, out of which majority 154(91.7%) were in age group of 23-25 years and more than half 54.7 % were females. 4 questionnaire were excluded due to incomplete information.

Results indicated that the majority 91.6 % of interns reported higher stress level. The overall prevalence of job satisfaction (score of 2 or 3) was 30.7 %.The relationship between total job stress score and total job satisfaction was found to be statistically highly significant.

Table 2 summarizes the response (in percentage) of respondents reporting factors contributing “quite a bit” or “a lot” to overall job stress in a descending order. The prime sources of stress, according to the present study findings were underpayment (91.1%), inadequate facilities (85.2%), conflict of responsibilities (85.1%) & excessive workload (83.9%).

Having good relations with parents was satisfying for (75.6%) of the respondents, followed by being perceived by colleagues as doing a good job (60.1%), feeling of being well dealt by relatives (58.9%) and deriving intellectual stimulation from work(50%) of respondents.

Majority of respondents chose to cope with job stress through conversations with partner / friends/family (71.4%) followed by working for longer hours (67.3%) and talking with regular support group. However the matter of concerns is use of addictive substances like smoking cigarettes and drinking alcohol as a coping strategy was reported by 22.6% and 22.1% of respondents respectively.

**Table-1: Level of Stress and Satisfaction among interns**

Levels	Lower Satisfaction	Higher Satisfaction	P value
Higher Stress	149	19	P < 0.0001
Lower stress	117	51	

**Table-2: Factors contributing to job stress**

Sr. No	Stress	Percentage
1	Feeling poorly paid for the job you do	91.1
2	Having inadequate facilities (e.g. equipment, space) to do your job properly	85.2
3	Having a conflict of responsibilities (e.g. clinical vs. academic)	85.1
4	Having too great an overall volume of work	83.9
5	Having conflicting demands on your time (e.g. patient care/ exam preparation)	81.5
6	Disruption of home life as a result of being on call	79.2
7	Disruption of your home life through spending long hours at work	77.9
8	Encountering difficulties in relationships with administrative staff (e.g. secretaries)	77.9
9	Having inadequate staff to do your job properly	76.2
10	Encountering difficulties in relation with managers	71.4
11	Feeling under pressure to meet deadlines	70.8
12	Encountering difficulties in relation with senior medical staff	66.7
13	Disruption of home life due to taking paperwork home	66.7
14	Having to deal with angry, distressed or blaming relatives	63.1
15	Being involved in physical suffering of patients	56.5
16	Being responsible for the quality of work of other staff	55.4
17	Having to take up managerial responsibilities	53.6
18	Feeling you have insufficient input into the management of your unit/institution	52.9
19	Encountering difficulties in relation with colleagues	52.4
20	Keeping up to date with current clinical practices	50.0
21	Being involved with the emotional distress of the patients	44.6

**Table-3: Factors contributing to job satisfaction in descending order**

Sr. No	Satisfaction	Percentage
1	Having good relations with your patients	75.6
2	Being perceived to do the job well by your colleagues	60.1
3	Feeling you deal well with relatives	58.9
4	Deriving intellectual stimulation from work	50.0
5	Having a high level of responsibility	48.2
6	Being able to bring about a positive change in your institution	46.4
7	Having good relations with other staff members	45.2
8	Having opportunities for personal learning	44.6
9	Having variety in your job	39.9
10	Feeling your clinical skills are used to the full in the job you do	36.9
11	Having a high level of autonomy	35.7
12	Feeling you have the staff necessary to do a good job	35.1
13	Feeling you have adequate facilities to do a good job	32.7

Table-4: Methods of coping with job stress

Sr. No	Cope	Percentage
1	Talking to partner/family/friends	71.4
2	Working longer hours	67.3
3	Talking to colleagues informally	57.7
4	Talking to colleagues formally (i.e. regular support group)	55.3
5	Taking exercise/playing sport	55.3
6	Not eating as healthily as you would wish	52.4
7	Pursuing hobbies	48.8
8	Reorganizing your work	44.6
9	Learning techniques for relaxation (e.g. meditation)	42.8
10	Obtaining formal psychological support	37.5
11	Other (please specify and rate)	29.8
12	Taking annual leave	28.6
13	Smoking cigarettes	22.6
14	Drinking alcohol	22.1
15	Taking prescription drugs	22.1

## DISCUSSION

In the present study, out of total 168 participants, 91.6% perceived their work stress to be high or very high and only 30.7% of the respondents reported being completely satisfied with their job it was contrary to findings of Sushmita C *et al.* where stress level was found to be lower and satisfaction level was higher in majority of interns [6, 7]. The prime sources of stress, according to the present study findings were underpayment (91.1%), inadequate facilities (85.2%), conflict of responsibilities (85.1%) & excessive workload (83.9%). Sushmita C *et al.* reported, disruption of home life through spending long hours at work was the source of stress in 65.6% respondents followed by having too great an overall volume of work (49.5%) and being responsible for the quality of work of others (47.3%) [7]. In our study factors responsible for job satisfaction were Having good relations with parents (75.6%) perceived by colleagues as doing a good job (60.1%), feeling of being well dealt by relatives (58.9%) and deriving intellectual stimulation from work(50%) consistent with findings by Sushmita C *et al.* [7]. Majority of respondents in present study chose to cope with job stress through conversations

with partner / friends/family (71.4%) similar finding were seen in study done by Sushmita C *et al.* [7]. However prevalence of smoking and use of alcohol as a coping measure was much higher in our study as compared to other studies

## Limitations

A follow-up study with the start of the internship period might have helped eliminate potential bias.

While it was emphasized to the respondents that they describe their experience during the past 1 year, interpersonal variations in experiences and frame of mind at the time of data collection might have clouded the assessment. While this study describes the experience of interns at a single centre in the central India — we believe that, owing to a common structure of the internship program our experiences will be similar though not identical to centres elsewhere. This area merits further multicentric exploratory studies to validate our findings.

## CONCLUSION

This study showed a relative high prevalence of stress and lower prevalence of satisfaction among medical graduates during their internship. The findings clearly highlight the importance of developing appropriate policy by medical educators. Interventions in form of social and psychosocial support and counselling at local level will help to reduce stress among interns and thereby improve their learning outcome, and patient care.

#### REFERENCES

1. Medical Council of India. Salient features of regulations on graduate medical education.
2. New Delhi: MCI, 1997. [www.mciindia.org/know/rules/rules\\_mbbs.html](http://www.mciindia.org/know/rules/rules_mbbs.html).
3. Zunitan MA Al, Sulihem AA Al, Dehaim MA Al, Esefir WA Al, Rabiah AM Al, Kameshki RN; Prevalence of stress in junior doctors during their internship training : a cross-sectional study of three Saudi medical colleges ' hospitals, 2014;1879–86.
4. Liu C, Tang W, Weng W, Lin Y, Chen C; The process of coping with stress by Taiwanese medical interns : a qualitative study. BMC Med Educ. BMC Medical Education, 2016; 1–6.
5. Giri PA, Parhar GS; Internship: A transition from a medical student to a doctor. International Journal of Biomedical and Advance Research, 2012; 3(10): 753-755.
6. Adapted version of the Hospital Consultants ' Job Stress & Satisfaction Questionnaire ( HCJSSQ ) The manual for the HCJSSQ can be found at : for all cancer team members, 2010.
7. Susmita C, Edwin N, Braganza D; Medical Education. Natl Med J INDIA, 2014; 27(4): 214–6.
8. Stress J, Strategies C, Hospital T; Original Article Job Stress , Satisfaction, and Coping Strategies Among Medical Interns in a South Indian Tertiary Hospital. Indian J Psychol Med, 2014; 36(3): 2014–7