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Original Research Article

Burnout Syndrome among Surgeons in Nagpur

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Abstract: Burnout is defined as exhaustion resulting from excessive demands on energy and resources. The features are combination of emotional exhaustion (EE), depersonalisation (DP), and a reduced sense of personal accomplishment (PA). Training for and practicing surgery are stressful endeavours. Studies involving national samples of surgeons from surgical subspecialty societies and graduates of surgical training programs suggest that burnout rates among surgeons range from 30% to 38%. These statistics indicate that a substantial number of our colleagues are struggling with personal and professional distress at a level that should be of concern to all surgeons.
Keywords: Burnout, Surgeons.

INTRODUCTION:

Burnout is defined as exhaustion resulting from excessive demands on energy and resources [1]. The features are combination of emotional exhaustion (EE), depersonalisation (DP), and a reduced sense of personal accomplishment (PA) [2]. Training for and practicing surgery are stressful endeavours [3, 4]. Studies [5, 6] involving national samples of surgeons from surgical subspecialty societies and graduates of surgical training programs suggest that burnout rates among surgeons range from 30% to 38%. These statistics indicate that a substantial number of our colleagues are struggling with personal and professional distress at a level that should be of concern to all surgeons.

So to increase awareness of the symptoms, causes, and consequences of surgeon distress and burnout and encourage surgeons to be proactive in their personal health habits, prompt leaders of surgery departments and training programs to incorporate a supportive workplace environment and to stimulate research in these areas, we conducted a study to evaluate burnout syndrome among surgeons in Nagpur.

METHODOLOGY AND STUDY FACTOR:

This non randomised control study was conducted in the department of general surgery at NKP salve institute of medical sciences & research center & lata mangeshkar hospital Nagpur. Surgeons were give questionnaires. The Burnout Syndrome's assessment was performed using the Maslach Burnout Inventory Human Services Survey [2] which is an self-assessment instrument with answers given in Likert-type seven-point scale (0: never to 6: every day). The instrument consists of 22 questions which are divided into three dimensions, nine questions on EE, five on DP, and eight on PA.

STUDY DESIGN:

Hospital based: Non Randomised control study
Case selection: Surgeons from Nagpur
Sample population: Universal Sampling

STATISTICAL ANALYSIS:

The Statistical Package for Social Sciences (SPSS) version - 17 is used to analyze the collected data. Continuous variables are expressed as means, standard deviation and range while categorical variables as proportions. Comparisons of categorical variables are done using chi square and the means using the student "t "test. The rank correlations are done using Spearman's rho method. The p-value < 0.05 is considered to be statistically significant.

RESULTS:

Table 1: Demography and job characteristics of respondents:

S.No	Characteristics		Number n=56	High Burnout n=27 (%)	Non High Burnout n=29	P value
1	Sex	Male	52 (92.8%)	23 (85.1)	29	>0.05
		Female	4 (7.1%)	4 (14.8)	0	
2	Age	25-35	16	7	9	>0.05
		36-45	22	12 (44.4)	10	
		46-55	13	6	7	
		56-65	5	2	3	
3	Experience	1-10	10	3	7	>0.05
		11-20	18	10 (37)	8	
		21-30	18	10 (37)	8	
		31-40	10	4	6	
4	Marital status	Single	0	0	0	>0.05
		Married	54	25 (92.5)	29	
		Divorced	0	0	0	
		Widowed	2	2	0	
5	No. of Children's	0	8	4	4	>0.05
		1	20	13 (48.1)	7	
		≥2	28	10 (37)	18	
6	Current smoker vs ex-smoker	Current smoker	16	6 (22.2)	10	>0.05
		Ex-smoker	4	2	2	
7	Use of psychotropic	0	0	0	0	
8	Chronic illness	Psychiatric	2	2	0	>0.05
		Non-Psychiatric	16	6 (22.2)	10	
9	Setting of practice	Hospital Authority	16	10 (37)	6	>0.05
		Department of Health	8	3	5	
		University	15	10 (37)	5	
		Others	17	6	11	
10	Professional status	Basic trainee	0	0	0	>0.05
		Higher trainee	0	0	0	
		Specialist	56	27 (100)	29	
11	Working hours per week	0-10	0	0	0	>0.05
		11-30	0	0	0	
		31-50	25	8	17	
		≥51	31	19 (70.3)	12	
12	On-call duty (days/month)	0-10	27	13 (48.1)	14	>0.05
		11-20	5	2	3	
		21-30	24	12 (44.4)	12	
13	Need to work shifts	Yes	6	4	2	>0.05
		No	50	23 (85.1)	27	
14	number of working nights per month	0-10	54	25 (92.5)	29	>0.05
		11-20	0	0	0	
		21-30	2	2	0	
15	Sunday work (days/month)	0-2	39	16 (59.2)	23	>0.05
		3-4	17	11(40.7)	6	
16	Days of sick leave in the past 1 year	0-5	43	17 (62.9)	26	>0.05
		6-10	7	4	3	
		11-15	6	6	0	
17	Are you retired or not working in the profession for recent 3 months?	Yes	2	2	0	>0.05
		No	54	25 (92.5)	29	

The questionnaire was sent to 241 surgeons but the response rate was 23.2% ie 56 responded. Demography and job characteristics of the respondents are shown in table 1 and 2. The majority of the respondents were male. In all 41% (27) of the respondents suffered from high burnout based on high EE, high DP and low PA scores. Among all respondents 4 were female and were found out to be high burnout. Most of the high burnout group were between age group of 36-45 (44%) with experience over 10 years. 95% of them were married. 48% of the burnout were having 1 child and 37% of them have more than 2 child. 22% of them were smoker and have non-psychiatric illness. 37% of them were hospital authority and another 37% were in university.

All burnout respondents were specialist. Most of the burnouts (70.3%) were working more than 51hrs per week. 44% of them are on call duty every day. 92.5% have 0-10 working nights per month. 59% are on duty on Sunday. 63% have taken 0-5 leave in one year.

Table 2 shows correlations between stressors, stress-relieving factors, and self-rated job satisfaction in High burnout. **Health insurance related work and difficult relations with colleagues and staff** were among the most significant stressor among high burnout respondents. The other important stressors were **research work, poor outcome after surgery and absence of hierchy** whereas **spouse support** was among the most significant stress reliever among the high burnout group. The other stress reliever was **vacation**. **Self rated job satisfaction correlated strongly in burnout group.**

Table 2: correlations between stressors, stress-relieving factors, and self-rated job satisfaction in High burnout.

Variables	**High burnout**	
	Spearman r	**P value**
Stressors		
Perceived inadequate sleep	0.264	0.668
Perceived excessive calls	-0.287	0.639
Irregular sleep pattern	0.564	0.321
Feel own work not valued by others	0.684	0.202
Difficulties to balance professional and family life	0.308	0.614
Irregular sleep pattern	-0.632	0.253
Feel own work not valued by others	0.553	0.334
Difficulties to balance professional and family life	0.564	0.321
Excessive stress due to global workloa	-0.632	0.253
Health insurance-related work	**0.894**	**0.040**
Difficult relations with colleagues and staff	**0.947**	**0.014**
Administration responsibilities	0.500	0.391
Lack of independence	0.526	0.362
Poor job security	0.783	0.117
Stress relief factors		
Spouse support	**0.921**	**0.0263**
Social support	0.359	0.5528
Exercise	0.553	0.3340
Self-satisfaction	**0.975**	**0.0048**

DISCUSSION:

Working hard, working for long hours, operate for long time, dealing with life and death situation with their patients are some of the qualities of Surgeons. Apart from all these, surgeons have to maintain records of the patients and long term follow up. When compared to other professionals in the medical field they settle little late. They also have to maintain balance between professional and family life. Unemployed youth is a worldwide problem [7]. According to a report from the Royal College of Physicians and Surgeons, One in six new medical specialists are having trouble finding work in the field they trained for [8].

The surgical workplace environment may place surgeons at particular risk for overwork and for imbalance between personal and professional life. Treating patients and colleagues as objects rather than human beings and feeling emotionally depleted are the common symptoms of burnout. The other symptoms include physical exhaustion, poor judgment, cynicism, guilt, feelings of ineffectiveness, and a sense of depersonalization in relationships with co-workers or patients.

In our study, we found lack of participation from surgeons as only about 23% of the surgeons responded. 41% of the respondents suffer from high

burnout. The finding is higher when compared to other studies [9, 10]. More than 20% were current smokers and suffering from non-psychiatric illness. Job characteristics like professional status, working hrs per week, need to work shift, on call duty, Sunday work and sick leave was found insignificant in our study.

Health insurance related work and difficult relations with colleagues and staff were among the most significant stressor ($P<0.05$) among high burnout respondents. The other important stressors were research work, poor outcome after surgery and absence of hierchy. Spouse support was among the most significant stress reliever ($P<0.05$) among the high burnout group. The other stress reliever was vacation. Self rated job satisfaction correlated strongly in burnout group.

It is estimated that doctors in the U.S. leave approximately $125 billion on the table each year due to poor billing practices. This is a stark reminder for physicians that providing optimal patient care is only one of the big factors in becoming a successful in the industry.(http://www.healthcarebusinesstech.com/medical-billing/)2 of the most common factors contributing to a loss in profits:

Billing errors

It is estimated that up to 80% of medical bills contain errors. Insurance companies are very strict on correct medical billing and coding practices, and even the smallest mistake can cause an insurance company to reject a medical billing claim. This starts a long process requiring the doctor to fix the error, submit the claim a second time, and then wait (and hope) for the new claim to be accepted and processed. Medical billing errors can cause a doctor to have to wait several months or more before receiving payment for their services.

Failure to stay up-to-date on medical billing rules and regulations

These rules are constantly changing, requiring physicians and administrators to spend time and money on continuing education, software, or staff training to stay current, having a direct effect on the cash flow and profits of a practice.

Not only are the rules and regulations concerning medical billing changing, but they are also changing for health care as a whole. Updates and major changes administered with the Health Care Reform bill have increased the number of insured Americans by more than 30 million, so proper medical billing procedures are more important than ever.

The British Medical Association and the Medical Council of India state that '*a practitioner in whatsoever form of practice, should take positive steps to satisfy himself that a patient who applies for treatment or advice is not already under the active care of another practitioner before he accepts him.*' Furthermore '*a practitioner should not accept as a patient any patient whom he has attended as a consulting practitioner, or as a deputy for a colleague.*' Implementing this directive is not an easy task in a country like ours where private practice is rampant and where patients often switch doctors at will. Patients literally go shopping from clinic to clinic, or from hospital to hospital for doctor's opinions. Unscrupulous doctors readily accept any and every patient, often with full knowledge that the patient is under the care of a colleague. Such a commercial approach to patient care reduces the profession to a business venture [11].

Studies [12, 13] have shown that stress management workshops could lead to short-term improvement in stress and burnout test scores. Ospina-Kammerer V, Figley CR have suggested respiratory one method in reducing emotional exhaustion [14] Collecting data in the form of validated questionnaire is a suitable way. The number of participants in our study was small. So comparing our findings with other study is not easy. Large scale study is required to further assess the burnout in surgeons and reduce the biases.

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