

Original Research Article

Burnout among clinicians in tertiary care setting

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ABSTRACT

Background: “Burnout” is defined as a state of physical, emotional and mental exhaustion, or a coping mechanism to working conditions that are stressful, demanding and lack of recognition. Effects of burnout are many and can eventually threaten one’s job satisfaction, relationship and also health. High patient load, long working hours, poor logistics and infrastructure support and unreasonable demands from patients make clinicians vulnerable for stress and burnout. Objective was to study the prevalence of burn out in clinicians and factors associated with burnout.

Methods: The study was an observational descriptive cross-sectional study conducted among Doctors in clinical departments of a Tertiary Medical care setting in October-November 2015. Sample size was 97. Study was conducted using Maslach Burnout Inventory with additional questions on demographic factors, work experience, hours of work and speciality. The inventory comprised 22 items on a seven-point Likert scale. Frequency of symptoms (ranging from ‘0=never’ to ‘6=every day’). Burnout was measured in three dimensions - emotional exhaustion (EE), depersonalization (DP) and personal accomplishment (PA). The data was collected after taking Institutional ethics committee approval and verbal consent from participants. Data was analyzed using MS Excel 2007.

Results: About 15% Of clinicians showed high emotional exhaustion, 9% high depersonalization, and 18% low Personal accomplishment. More Females showed burnout than males and more clinicians from surgical branches showed burnout when compared to medical branches.

Conclusions: Burnout exists among healthcare professionals and measures should be taken to identify causes and take remedial actions.

Keywords: Burnout, Clinicians, Visakhapatnam

INTRODUCTION

The concept of “burnout” was first introduced in the 1970s and it is defined as “a state of physical, emotional and mental exhaustion, or a coping mechanism to working conditions that are stressful, demanding and lack of recognition”.¹

As we all know that doctors in clinical care deal with day to day emergencies and have to make life saving decisions. The three tier public health care delivery system in India caters to the needs of the community,

however certain deficiencies or gaps such as poor referral system under staffed performance in secondary health care puts a load on the Tertiary care providers. The tertiary care providers in the government facility are faced with high patient load, long working hours, poor logistics, infrastructure support and unreasonable demands from patients, this makes them vulnerable for stress and burnout. The physical and mental challenges faced by doctors involve long and irregular working hours which is the most common type of challenge faced by doctors all around the world. The Doctor should be ready to attend the patient whenever in need; most of the times they are on call that means or have to go to their

place of employment or wherever the patient is at that time. It can sometimes result in varying levels of exhaustion and sleep deprivation.² This not only affects the physical, psychological and also financial balances of the doctor. As a result Doctors cannot perform their duties as expected because they are burnt out, exhausted or stressed as they lose their energy, accuracy and innovative thinking.³ Very few studies are available in India regarding this aspect. Hence this study was taken up with the objective of assessing the prevalence of burnout among clinicians employed in a government health facility and factors associated with burnout.

METHODS

The study was an observational descriptive cross-sectional study conducted in the months of October and November 2015. Study was done in a government tertiary care centre in Visakhapatnam, Andhra Pradesh having 1023 beds and providing specialty and super specialty services. Prevalence of 70% burnout was reported in a previous study conducted in tertiary care setting. Sample size of 97 was arrived using the formula $4pq/d^2$ where “p” is prevalence, “q” is (P-100), “d” is absolute precision of 10 and nonresponse rate of 15% was anticipated.⁴ Sampling frame included all the clinicians working in the various specialties and super specialties. Clinician is defined as “a health professional whose practice is based on direct observation and treatment of a patient, as distinguished from other types of health workers, such as laboratory technicians and those employed in research.”⁵

A list of all the clinicians working in this hospital was prepared and out of all 230 clinicians 97 were selected by computer generated random numbers using simple random sampling technique. Inclusion criteria of Clinicians who were willing to take part in the study and Who were attended to duties in October and November of 2015 are included in study. Doctors who were on long leaves or who went for maternity or not available were excluded from the study.

Study was conducted using Modified Maslach Burnout Inventory –human services survey (MBI-HSS). Copyright of using Maslach Burnout inventory tool was purchased from appropriate agency.

According to this scale burnout is measured in Three domains Includes 22 seven-point questions on frequency of symptoms (ranging from ‘0 = never’ to ‘6 = every day’). Nine for emotional exhaustion, five for depersonalization, and Eight for personal accomplishment. Burnout (as per MBI-HSS) which has been previously validated in a number of health care professionals and is also done in various studies in India.⁷⁻⁹ Burnout was defined as the presence of one or more of the following:

- high score in emotional exhaustion (EE)(>21)
- high score in depersonalization (DP)(>13)
- low score in personal accomplishment (PA) (<31).

Participants were categorized as Burnout and Non-Burnout group. Information regarding socio-demographic (age, gender, marital status) and occupation (work experience, hours of work and specialty) related variables were also gathered and their role in burnout was assessed. The data was collected after taking Institutional ethics committee approval.

The MBI-HSS is a self-administered questionnaire, and it takes 10-15 minutes to fill. The interviewer personally met the participants and explained about the purpose of the study. Before administering questionnaire, consent was taken from them and they were assured about the confidentiality of the data and asked to fill this questionnaire when they were free and alone to avoid bias. These forms were collected by the interviewer and carefully examined each completed test form to make sure all items had been answered, and to ask the respondents immediately about unanswered items.

Data was entered in Excel sheet and analysis was done. Categorical variables were analyzed using Chi square test, and $p < 0.05$ was taken as significant.

RESULTS

Out of 97 subjects only 94 returned completed forms. Of them fifty one clinicians were from Medical speciality and allied departments among them eighteen were females and thirty-three were males & forty three clinicians were from surgical and allied departments, among them eighteen were females and Twenty five were males. Females are equally distributed in surgical and medical allied groups (Table 1).

Table 1: Background information of participants.

Variable	Number	%
Years of practice		
<5 yrs	30	31
6-10 yrs	26	28
11-15 yrs	16	17
>15 yrs	22	24
Working hours per week		
<40 hrs	5	5
41-60 hrs	45	48
61-80 hrs	34	36
>80 hrs	10	11
Marital status		
Married	88	94
Unmarried	5	5
Widow/divorced	1	1

Table 1 shows Most of the study participants were having less than five years of experience and Almost half of the study participants (48%) work 41-60hrs a week, almost all of them were married.

Table 2: Burnout in different domains according to speciality.

	Emotional exahution	Depersonalization	Personal accomplishment
Surgical speciality and allied groups	12	6	11
Medical speciality and allied group	5	3	9
Total	17	9	20

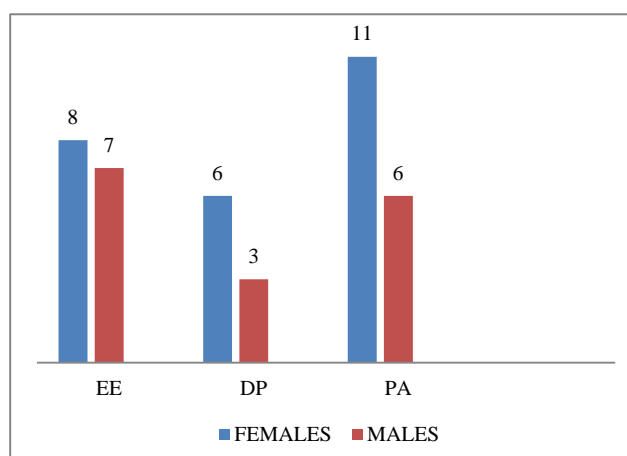
Table 3: Factors associated with burnout.

Speciality	Burnout no. (%)	Non burnout no. (%)	P value
Surgical speciality and allied groups (n=43)	19 (44)	24 (46)	0.034
Medical speciality and allied group (n=51)	12 (23)	39 (77)	
Gender			
Male	13 (22)	45 (78)	0.043
Female	18 (50)	18 (50)	
Years of practice			
<5 yrs	11 (36)	19 (64)	0.28
6-10 yrs	7 (23)	19 (77)	
11-15 yrs	7 (43)	9 (57)	
>16 yrs	6 (27)	16 (73)	

Among the total subjects, prevalence of burnout in emotional exhaustion (EE) 17 (18%), burnout in depersonalization (DP) 9 (10%) and low level of personal accomplishment (PA) 20 (21%) (Table 2).

This table shows burn out among clinicians was present in all domains. Most of study participants were having burnout in personal accomplishment domain followed by emotional exaution and depersonalization.

The mean age of Burnout group was 38 yrs (32 yrs-43 yrs) compared to Non Burnout group where the mean age was 47 yrs (42-56). This difference was statistically significant and clinicians with a lower total number of years (<10 yrs) in practice experienced more burnout compared with those with longer duration of practice (Table 3).

**Figure 1: Gender wise distribution of burnout.**

Surgical specialty doctors significantly experienced more burnout than medical specialty doctors. This difference was statistically significant ($p < 0.05$). Overall 9 doctors experienced burnout in all 3 dimensions and 18 members experienced burnout in 2 dimensions, and 4 in only one dimension (Figure 1).

Females were experiencing more burnout on all three domains than males which are statistically significant. Most of the females were experiencing burnout in personal accomplishment domain and most of the males experiencing burnout in emotional exhaustion domain.

DISCUSSION

The findings of this study indicate that the burnout syndrome is present among doctors across all specialty categories. Doctors of younger age group and with low experience in practice experiencing more burnout than Doctors who are more experienced and aged. Lower prevalence of burnout in present study compared to a previous study of Bangal et al among residents which shows Overall burnout to be 50% may be because residents have more duties and responsibilities than doctors who were already trained and residents are the one who deals with the patient directly from entry to exit from the hospital.¹⁰ The Burnout in Indian doctors is very low compared to studies from Europe i.e. 43% of respondents scored high for EE burnout, 35% for DP and 32% for PA, with 12% scoring high burnout in all three dimensions and in another study the level of emotional exhaustion (37.4%), high level of depersonalization (45.6%) and low perception of personal accomplishment (50.3%) done in Turkey, this may be because most doctors in India in government Tertiary care setting do not have to deal with mundane issues like paperwork,

insurance companies and regulatory bodies.^{11,12} In this study most of the doctors experienced burnout in personal accomplishment i.e. low personal accomplishment it is probably because of less promotion rate and low income in government sector than in private sector. In another study which was also conducted in similar setting in India shows more than one third of the participants were found to have burnout where they studied among interns and residents.¹³

Supporting our study that female clinicians experienced more burnout than male counterparts in a study conducted among united nations has reports women physicians have a higher rate of depression than the general population opposingly in another study from Maharashtra Bangal et al showed that males experienced more burnout than females.^{10,14} Several studies have found that female medical students, residents, and physicians are more depressed than their male counterparts because they have to manage both family and profession.¹⁵⁻¹⁹

CONCLUSION

Issue of Burnout among doctors needs to be addressed as it can lead to problems among the doctors and also loss of productivity and ultimately health care burden increases. Measures to be taken to sensitize the Doctors about improving stress management and self regulation. Enhancing of skills will reduce stress as experienced doctors had low burnout.

More support and team work for females and those working in surgical specialties. In depth studies with larger samples are to be taken up. Burnout exists among healthcare professionals and measures should be taken to identify causes and take remedial actions. Clinicians are often avoid to consult psychiatrist or any mental health assistance from other doctors because of stigma or it may influence his/her practice and he may lose the confidence of patients which needs to be focused. Female doctors should get the support from family, colleagues and from the management to cope up and to lead a burnout free life and also appreciation of employees and workers, Creating of a supportive environment, identification of early signs of burnout, facilities for stress management, creating awareness and by reducing stigma, mental health wellness and providing support for clinicians who need it.

The limitations of this study include the biases of self reporting (e.g., nondisclosure, and different interpretations of meaning), conducted only in government tertiary care Centre etc.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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