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Original Research Article

Burnout among health professionals in a tertiary medical college of northern Kerala, India

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ABSTRACT

Background: Health care has emerged as an industry with potential source of stress in the workplace environment. Burnout is characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment. The objectives of the study were to study proportion and associated factors of burnourt among health professionals in medical college.
Methods: Data was collected using a questionnaire by using Copenhagen burnout inventory. From a sample frame from of 856, proportionate sampling was to get 187. Data was expressed in proportions and Chi square test was used as test of significance.
Results: There are 187 subjects participating in the study which comprised of 52 (27.8%) males and 135 (72.2%) females. Most of the participants who are stressed, falls in the age group less than thirty five years age, i.e. 59.9%. Client related stress was seen in subjects who were staying alone without family. Those who worked more than six hours per day had more personal burn out 17% and the result were significant. 60.4% had job related stress due to night shifts. Those subjects whose income was less than forty thousand rupees had high job related burn out 51.3%. Work related burn out was increased in subjects who had no exercise 47% at all and the result was very highly significant.
Conclusions: Professional development programmes should be incorporated to improve the fit between the organisation and the professionals.

Keywords: Burnout, Stress, Health professionals

INTRODUCTION

Health care has emerged as an industry in the present era. There are many structural and financial changes on-going in the health care sector to make things more complex, available treatment options and better informed patients, computer surveillance of production, fewer health and retirement benefits, and the feeling that professionals themselves have to work longer and harder just to maintain their current economic status add on. The potential source of stress and burnout among clinical and non-clinical professionals working at the hospitals strongly influence the workplace environment.[1]

"Burnout" was coined to describe workers' reactions to the chronic stress common in occupations involving numerous direct interactions with people by Freudenberg.[2] Burnout is typically conceptualized as a syndrome characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment.[3] Stress could be arised from numerous factors which should be assessed in detail.

The experience of too much pressure and too few sources of satisfaction can develop into a feeling of exhaustion leading to burnout. From exploratory research on people involved in human-services occupations, Maslach in the year 1982 conceptualized burnout as having three dimensions and developed the Maslach Burnout Inventory (MBI). Although initially, her burnout concept was confined to service occupations, in 1993, she extended it to the non-service occupations as well. She did finally acquiesce to the consensus opinion that burnout is prevalent across other job domains as well.[4]

Another scale of burnout was assessed by Copenhagen Burnout Inventory (CBI), a public domain questionnaire developed by the National Institute for Occupational Health, Denmark. The key feature of the CBI is that it differentiates three forms of burnout, which were defined according to the life domain from which it may arise: (1) personal or generic burnout, measuring the degree of physical and psychological exhaustion experienced by the person, regardless of occupational status; (2) work-related burnout, measuring the degree of physical and psychological exhaustion which is perceived by the person as related to work; and (3) client-related burnout – measuring the degree of physical and psychological exhaustion which is perceived by the person as related to work with clients. Scale scores are calculated by taking the mean of the items in that scale.[5,6]

Studies have shown stress adversely impacts the physical and psychological well-beings of doctors.[7] Considerable works has been done in the area of stress among healthcare practitioners throughout the world.

Though an enormous amount of research is available on "stress" in both Western and Indian contexts, there is very little research on "burnout" in the Indian workplaces. For this study, important considerations included evolving an exclusive construct of 'executive burnout' in the industrial context which does not exist and also developing the construct of burnout in the Indian context.

Thus, the study aimed to study the prevalence of burn out and its correlates among health professionals in a tertiary medical college hospital at Northern Kerala, India.

METHODS

A descriptive study was done in a tertiary medical college at Malappuram district, Kerala and the study period was 2 months (3rd January 2017 to 3rd March 2017). Data was collected using a questionnaire comprising of socio-demographic profile, health details, job stress details and level of stress by using Copenhagen burnout inventory [CBI] scale, which assess burnout at various dimensions of Personal burnout, Work burnout and patient related burnout among health professionals. And method of selection was by stratified random sampling. Among a sample frame of 856 health professionals from the Department of Human resources development, which included doctors (clinical, non-clinical), post graduates, interns, nurses. Proportionate sampling was done from each strata to get a sample size of 187.

The burden of job stress in total among health care professionals and in different strata was expressed as proportions. The relation of stress with other variables like age, sex, present stay with family, occupation, night shift, working hours, alcohol, smoking, exercise was assessed using Chi square test. The data was entered into excel and transferred to SPSS Trial version 16 for analysis. Ethical clearance was taken from the ethical committee.

RESULTS

There are 187 subjects participating in the study which comprised of 52 (27.8%) males and 135 (72.2%) females. They were selected randomly from 6 strata proportionate to their population. 3.2% of the subjects complained of back pain and some were on regular medication l. Majority of them were healthy and had no chronic illness. 8% of people were absent for the past one year due to viral fever.

Table 1: Participants from each cohort.

	Frequency	Percentage (%)
Non clinical doctors	13	7.0
Non clinical post graduates	4	2.1
Nurses	94	50.3
House surgeons	22	11.8
Clinical post graduates	22	11.8
Clinical doctors	32	17.1

Prevalence of burnout

Burnout prevalence is expressed in three dimensions-personal, work related and client related.

Most of the participants who are stressed, falls in the age group less than thirty five years age, i.e. 59.9%. Females in the study sample comprised of 57.2% of the sample population who had job related stress. It was found that work related stress was seen mostly among nurse (41.7%), clinical doctors (11.8%), clinical post graduates (9.1%), interns (8%), non-clinical doctors (5.9%) and non-clinical postgraduates (0.5%).

Client related stress was seen in subjects who were staying alone without family. Those who worked more than six hours per day had more personal burn out 17% and the result were significant. Client burnout had no much difference in value with the duration of working hours, but still it was found to be significant. 60.4% had job related stress due to night shifts. Those subjects

whose income was less than forty thousand rupees had high job related burn out 51.3%. Work related burn out was increased in subjects who had no exercise 47% at all and the result was very highly significant.

Table 2: Participants from each department.

Departments	Frequency	Percentage (%)
Physiology	2	1.1
Community medicine	7	3.7
Biochemistry	4	2.1
Anatomy	3	1.6
Pathology	2	1.1
Nursing department	40	21.4
Operation theatre	19	10.2
Emergency department	6	3.2
Surgery	16	8.6
CCU	1	.5
Cardiology	2	1.1
OBG	7	3.7
Labourroom	5	2.7
Oncology	3	1.6
Pulmonology	3	1.6
Medicine	16	8.6
NICU	1	.5
Private rooms	2	1.1
PICU	2	1.1
Medicine ot	1	.5
Psychiatry	6	3.2
Orthopedics	8	4.3
ENT	5	2.7
Pediatrics	8	4.3
Ophthalmology	5	2.7
Neurology	2	1.1
Dermatology	3	1.6
Anaesthesia	5	2.7
Neurosurgery	1	.5
Radiology	2	1.1

Table 3: Prevalence of each dimension of Copenhagen burnout inventory.

	Personal burn out		Work related burnout		Client burnout	
	N (%)	**X^2 (P value)**	**N (%)**	**X^2 (P value)**	**N (%)**	**X^2 (P value)**
Occupation						
Non clinical doctors	5 (2.7)		11 (5.9)		3 (1.6)	
Non clinical PG	0 (0.0)		1 (0.5)		0 (0)	
Nurses	28 (15)		78 (41.7)		16 (8.6)	
Interns	5 (2.7)		15 (8)		4 (2.1)	
Clinical PG	8 (4.3)		17 (9.1)		2 (1.1)	
Clinical doctors	10 (5.3)		22 (11.8)		3 (1.6)	
Age (in years)						
<35	41 (21.9)		112 (59.9)		22 (11.8)	
36-45	15 (8)		27 (14.4)		6 (3.2)	
>46	0 (0)		5 (2.7)		0 (0)	
Gender						
Male	15 (8)		37 (19.8)		4 (2.1)	
Female	41 (21.9)		107 (57.2)		24 (12.8)	

Continued.

	Personal burn out		Work related burnout		Client burnout	
	N (%)	X^2 (P value)	N (%)	X^2 (P value)	N (%)	X^2 (P value)
Present stay						
With family	28 (15)	0.01*	74 (39.60)		8 (4.30)	
Without family	28 (15.0)		70 (37.40)		20 10.70)	
Working hours						
<=6	24 (12.80)	0.03*	48 (25.7)		14 (7.5)	0.02*
>6	32 (17.10)		96 (51.30)		14 (7.5)	
Night shift						
Absent	13 (7)		31 (16.60)		5 (2.70)	
Present	43 (23)		113 (60.40)		23 (12.30)	
Income						
< Rs 40000	33 (17.6)		96 (51.30)		20 (10.7)	
>Rs 40000	2.3 (12.3)		48 (25.70)		8 (4.3)	
Alcohol						
Non -alcoholic	56 (29.9)		143 (76.50)		28 (15)	
Alcoholic	0 (0)		1.00 (0.5)		0 (0)	
Exercise						
No	27 (14.4)		89 (47)	0.004***	18 (9.6)	
Some	14 (7.5)		27 (14.4)		8 (4.3)	
Regular	15 (8)		28 (15)		2 (28)	

*significant, **high significant, **very high significant.

DISCUSSION

In the present study, it was found that the prevalence of work related stress was seen mostly among nurse which accounted almost 41.7% followed by clinical doctors (11.8%), clinical post graduates (9.1%), interns (8%), non clinical doctors (5.9%) and non-clinical postgraduates (0.5%).

Health Professionals are exposed to stress from emotions and situations that arouse outside the patient relationship. They have to work in an increasingly litigious and unforgiving environment.[8] Bureaucratic requirements imposed upon them are increasing and keep changing.[9] Medical knowledge is advancing rapidly and doctors have to constantly keep in touch with it. These changes are often so rapid that by the time health professionals have acclimatised with one change something else may come up or evolve.

Most of the participants who are stressed falls in the age group less than thirty five years age, i.e. 59.9%. In a study conducted in Finland by Kirsi, it was found age was separately related to burnout at ages separately in men and women. Among women, the association between age and burn out was negative in the early work years, positive in the late work years and non-existent in between. Females in the present study comprised of 57.2% of the sample population who had job related stress more than men. The Finland study showed that in young women, highest burnout prevalence was found in younger people in younger group and extreme older in the aged ones.[10]

The importance of family support need not be explained as it is a proven fact that it helps individuals to cope with the ongoing stressors. In the present study, Client burnout had no difference between staying with or without family. Likewise, those who worked more than six hours per day had more personal burn out (17%) and the result were significant. Client burnout had no big difference with the duration of working hours more than six hours, but still it was found to be significant. But in a study conducted by Amoafao it was found that more the duration of working hours, more the work related stress.[11]

In the present study, 60.4% had job related stress due to night shifts. A study done by Lajoie concluded that women working in a rapid forward rotating shift pattern have poorer sleep quality according to self-reported indicators of the validated PSQI and they have a higher prevalence of the metabolic syndrome compared with women who work during the day only. However, sleep quality did not mediate the relationship between shift work and the metabolic syndrome, suggesting that there are other psycho physiological pathways linking shift work to increased risk for heart disease.[12] Analyses of the data demonstrated in Greek hospitals reflected that overall, hospital doctors presented low levels of job satisfaction in relation to salary. Our findings were also similar in the manner, those subjects whose income was less than forty thousand rupees had high job related burn out 51.3%.[13]

The effects of academic examination stress on health behaviour were assessed in university students by Steptoe. It was hypothesized that the anticipation of examinations would lead to increases in cigarette smoking and alcohol consumption, and to decreases in

physical activity, and that effects would be particularly salient in students with low social supports. The result portrayed was a decrease in alcohol consumption of 17.5% in students with high social support between sessions, while those with low social supports showed an average increase of 18.5%. Physical activity decreased between baseline and exam sessions in the exam-stress group, but was not affected by social support. [14]

The results are discussed in relation to the effects of naturally occurring episodic stress on health behaviours, and the role of social support in moderating responses. In our study, work related burn out was increased in subjects who had no exercise 47% and it was very highly significant. And the interesting finding was there were only limited subjects taking alcohol and none were smokers. The reason could be the majority of subjects were female nurses and the other health professionals had not revealed the exact truth.

This study pointed out that work related burnout is more among nurses than any other health professionals. Client related stress was seen in subjects who were staying alone without family. Majority had job related stress due to night shifts and those subjects whose income was less than forty thousand rupees had high job related burn out. Work related burn out was more subjects who were sedentary. Addictions like alcohol and smoking are not a contributing factor for job related stress. Interventions should be focussed on modifying the organisational structure and work processes. Improving the fit between the organisation and the health professional through professional development programmes should be made mandatory for better adaption to the work environment occurs. Individual-level actions to reduce stress and poor health symptoms through effective coping should be promoted. Maintaining interest, developing self-awareness, and accepting personal limitations would enhance efficiency. Supportive relations, which include positive personal relationships, effective professional relationships, and good communication can build positive work relation indirectly, reduce burn out.

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