

Research Article

Perceived stress, psychological well-being and burnout among female nurses working in government hospitals

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ABSTRACT

Background: Few studies have studied about the Burnout among government employed Female Nurses in India.

Methods: A cross sectional survey was done by mailing questionnaires containing Perceived Stress Scale (PSS-10), Copenhagen Burnout Inventory (CBI) and General Health Questionnaire (GHQ-28) to all 603 Nurses posted in thirty government hospitals of central India. Fifty seven percent responded and 298 valid questionnaires were analysed.

Results: Sixty three nurses (21%) had GHQ 28 score more than 4 indicative of psychological distress. One hundred and forty four nurses (48.32%) had perceived stress scores above 17 in PSS -10. Age and Service were found to be negatively correlated with stress and burnout ($p < 0.04$). Proportions of the nurses with a 'high degree of burnout' (defined as > 50 points on a scale of 0-100) were 27.2%, 14.7%, and 9.4% respectively for Personal, Work and Client related Burnout categories. More nurses employed in ICU, maternity ward, General Family Ward, Surgical wards, and Medical wards had work related burnout when compared to those in Administration, Emergency Room and VIP Wards. No significant differences were observed in the scores of GHQ-28, PSS-10 and CBI when the nurses were compared on the basis of their marital status or educational achievements.

Conclusions: Prevalence of Burnout in government employed Female Nurses in India was less when compared to prevalence of burnout in nurses reported in western countries. The perceived Stress and Burnout was more in Nurses of 31-50 years age group, and being employed in the acute wards.

Keywords: Nurse, Burnout, Perceived stress, Government hospitals

INTRODUCTION

Nursing profession involves spending a great deal of mental, emotional and physical energy on caring for others. They are often caught between complex hierarchy of authority of doctors, matrons, families or caretakers and administrators. Unpredictable and distant postings, paperwork, interpersonal conflict within the health care team, decreased social perception and respect, lucrative remunerations abroad, reduced time for family and inadequate family support are compounding the stress of a nurse working in a transferable job in a government setup.

Burnout is a concept in human services/ health care professions documented since 1974. Freudenberger

proposed this term to describe a state of emotional exhaustion among people working in human service and health care.¹ Maslach mentioned it to be a syndrome with three major characteristics: Emotional Exhaustion, Depersonalization, and Reduced feelings of Personal Accomplishment.² It is a psychological experience that involves feelings, attitudes, motives and expectations. It produces physical, emotional and mental signs and symptoms in the victim. The main causes of burnout are feeling overloaded (too much to do in too little time), feeling a lack of control over one's work, and feeling a lack of meaningful connection with others.³

Burnout is manifested in all organizations.⁴ Nursing is an extremely stressful profession⁵, with nursing stressors

being the largest predictors of burnout.² The deleterious effects of stress in nursing have been noticed, described, and studied for more than 40 years.⁶ The stressors of Nursing includes Job Design and work load, Interpersonal relationships at work, relationship with patient and families, Work organization and management of work, and concerns of knowledge and technical skills related to patient care and treatment.⁷ Parikh et al. (2004) studied occupational stressors and coping mechanisms in nurses. In nurses occupational stress appears to vary according to individual and job characteristics, and work-family conflict. Shift work is highly prevalent among nurses and a significant source of stress.⁸

The stress that a person experiences is determined more by her or his appraisal of a situation than the event itself.⁹ Methods of coping adopted by the Nurse depend on her personality. Personality has been reported as an important factor in burnout.¹⁰ When other situational factors were controlled for in longitudinal studies, personality continued to account for significant portion of variance in burnout scores.¹¹ Studies have revealed higher degree of neuroticism trait results in increased reactions to stress while extraversion has a negative correlation with stress and burnout. Agreeableness traits consist of altruism, nurturance and caring and correlate negatively with burnout.¹²

Burnout negatively affects the health and personal lives of the employees experiencing it as well as services received by their patients, students, clients, or customers.^{13,14} Negative outcomes of burnout include cynicism, dissatisfaction, and turnover.¹⁵ The insensitive attitudes towards patients or others lead to negative or derisive behavior. Furthermore, studies have found correlations between burnout and absenteeism, intention to quit, actual turnover, and decreased job performance.^{16,17,18} Stress and burnout contribute to increased likelihood of nurses leaving the profession.¹⁹

Cordes and Dougherty indicated that married individuals experienced less burnout than their single counterparts.²⁰ Age and number of years in service are negatively correlated with burnout.²¹ Geetika Tankha reported that male nurses employed in private sector suffered more stress than their counterparts in government sector.²²

METHODS

All female nurses working in 30 government hospitals of the central India with a minimum of one year of service and willing to participate in the study were included in the study. Demographic data was collected by a specially prepared questionnaire. Items were chosen either because they had either been linked to burnout or because of their proposed theoretical relevance to the study.

The perceived stress was assessed using Perceived Stress Scale (PSS-10).²³ PSS scores 17 and above in females has been reported to indicate high stress levels.²⁴ Level 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.^{25,26} Psychological distress was screened by General Health questionnaire-28 (GHQ-28).²⁷ Any score exceeding the threshold value of 4 is classed as achieving ‘psychiatric caseness’.

RESULTS

A total of 603 questionnaires were mailed to all the female nurses involved in the study and 342 questionnaires were received back constituting a response rate of 57%. Thirty Nine questionnaires were rejected due to incompleteness. Five Nurses reported being on medication for psychiatric illness and also were excluded from the analysis. Final sample of 298 consisted of nurses working across all shifts on their routine rosters. The participants were generally experienced with 215 (72.1%) of them reporting they had in excess of 10 years of service. Means of the GHQ, perceived stress and burnout scores for the total sample are shown in table (Table 1).

Table 1: Sample Characteristics.

Age	39.07 ± 9.36	(Mean ± Standard Deviation)
Service	16.99 ± 9.31	(Mean ± Standard Deviation)
Married	75.5%	
Diploma/Class XII	191	
Graduate	98	
Postgraduate	09	
Perceived Stress Scale Score (PSS-10)	15.98 ± 6.22	[Min 0, Max 36]
<i>Burnout Scores by Copenhagen Burnout Inventory (CBI)</i>		
Personal Burnout Score	36.33 ± 14.73	[Min 0, Max 75]
Work related burnout	28.25 ± 19.59	[Min 0, Max 93]
Client related burnout	24.61 ± 17.18	[Min 0, Max 92]
Mean Burnout Score	29.59 ± 15.34	[Min 1.3, Max 71]
<i>Psychological well being</i>		
GHQ -28 Score	2.74 ± 3.83	[Min 0, Max 25]

Sixty three Nurses (21% of the sample) had GHQ 28 scores more than 4 and probably had psychological

distress. Proportions of this sample of 298 Nurses who qualify for 'high degree of burnout' (defined as >50 points on a scale of 0-100) were 27.2% for Personal, 14.7% for Work-related, and 9.4% for Client-related burnout. Overall 37 nurses (12.4%) had mean CBI score above 50. Mean personal and work related burnout were highest among nurses aged 31-40 years but regression analysis revealed weak negative correlation between Total Burnout scores and Age ($r=0.14$, $r^2= 0.02$, F stat =5.97, $p<0.02$). (Figure 1).

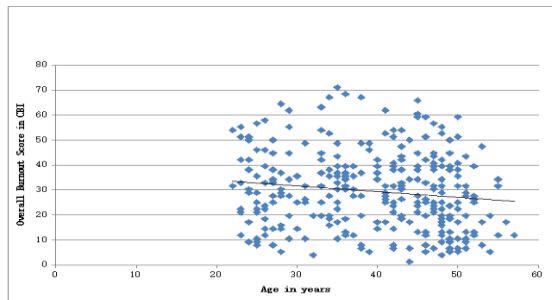


Figure 1: Age and CBI overall Burnout Scores.

One hundred and forty four Nurses (48.32% of the sample) had scores above 17 in PSS-10. There were more nurses with perceived stress scores above 17 among 41-50 years of age than the rest. The mean perceived stress scores were the least in nurses above 50 years of age ($p<0.002$) (Table 2).

Table 2: Age, Perceived Stress and Psychological Well Being Scores.

Age in years	n	Perceived Stress Scores (Mean ± SD)	GHQ-28 score (Mean ± SD)
21 - 30	74	16.09 ± 05.83	3.12 ± 04.37
31 - 40	70	16.33 ± 05.74	2.81 ± 3.65
41 - 50	126	16.75 ± 6.62	2.94 ± 3.89
51 - 60	28	11.93 ± 04.93	0.89 ± 1.499
One way Analysis of variance		$P<0.002$	$P<0.05$

No significant differences were observed between the married nurses versus those remained single in the scores of GHQ-28, Perceived Stress Scale, Personal, Work and Client Related Burnout Scores.

No differences were observed in the PSS-10 scores ($p<0.35$) or work related burnout ($p<0.31$) between the nurses who were graduate and above versus those with diploma and below

There were no differences in prevalence of work burnout, perceived stress or psychological distress between the nurses on day duty versus those on night duty at the time of survey.

More number of nurses in hospitals of bed size 500-799 had work related burnout when compared to the nurses posted in 50-199 bedded hospitals. More nurses employed in ICU, maternity ward, General Family Ward, Surgical wards, Medical and Surgical wards had work related burnout when compared to those in administration, Emergency room and VIP Wards. None of the eight OT Matrons who participated in the survey had burnout (Table 3).

Table 3: Place of duty and Work related Burnout.

Ward/Dept employed	Work Burnout Score <50		Work Burnout ≥ 50		Odds Ratio
	n	%	n	%	
Emergency Room	9	90	1	10	1.00
Medical/ Paediatric Ward	43	87.76	6	12.24	1.26
Surgery/ Neurosurgery/ Burns/OT	41	85.42	7	14.58	1.54
General Family Ward	42	84	8	16	1.71
VIP wards	13	92.86	1	7.14	0.69
Maternity ward	32	82.05	7	17.95	1.97
Intensive Care Unit	43	76.79	13	23.21	2.72
Administration	31	96.88	1	3.12	0.29

78.44% of the Nurses surveyed expressed intent to quit service and the proportion of nurses who expressed intent to quit were more in the burnout group.

DISCUSSION

The results from this study revealed that the minor mental health problems like anxiety and depression screened using GHQ-28 in our sample was 21%. This is lower when compared to figure of 28% of nurses in the National Health Service (UK) reported by Borrill et al.²⁸

The extent of burnout in our sample was also lesser than the comparable studies done in nurse populations in the western countries. We found 27.2% of the nurses in our sample to be suffering from Personal Burnout which is a non work oriented burnout measure, 14.7% had work related burnout and only 9.4% had features of patient related burnout. The proportions of burnout were much below the average scores reported by Kristensen et al (2005).²⁵ They had reported average scores of 35.9, 33.0 and 30.9 for personal, work related and client related burnout across 15 jobs. The study revealed that prevalence of Job related Burnout (14.7%) in our sample was also much less than that reported by Aiken et al of

forty percent in their study among Nurses in five countries.²⁹ This was despite a deficiency of about 12% of nurses in our hospitals. It is quite possible that highly structured and organizational work climate along with better financial compensation and other facilities offered in these hospitals might account for the improved job satisfaction and reduced prevalence of stress and burnout.

We found age and years of experience negatively correlated with stress and burnout which is consistent with previous studies. Nurses who have more experience probably had developed better coping skills than those who had shorter service period. The proportions of nurses with burnout in our sample tend to decrease with each decade. The least burnout was reported in 51-60 years age group.

Work and administrative tasks are rated to be overload when the nurses do not have enough time or resources to meet the demands placed on them. A significant proportion of nurses working in the ICU, acute medical and surgical wards, family wards had work related burnout. These wards involve rapid turnover of patients, more direct patient care related duties along with administrative work resulting in increased stress. There was more work related burnout among those who were distressed by conflict with patients, impatience of patients, handling terminally ill and dying patients, hostility of patient relatives, non compliance of visiting hours, lack of safety in male wards, work home conflict, insecurity of children at home while on night duty. None of the Operation Theater Nurses in our study did have burnout. This was possibly due to the clear cut tasks in OT procedures as regards patient outcome and their improved job satisfaction and motivation levels

This study has few limitations. Firstly, it is a cross sectional survey thus limiting the establishment of causality of stressors with outcome of burnout. Secondly the possibility of predominantly the healthy workers having completed the questionnaires and minimizing the prevalence estimated in this study. Thirdly, the nurses could have randomly answered to the questionnaires or misunderstood questions asked in the self-report measures used in this study.

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