

DEGREE OF BURNOUT AMONG EMERGENCY HEALTHCARE WORKERS AND FACTORS INFLUENCING LEVEL OF BURNOUT: A STUDY PROTOCOL

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ABSTRACT

BACKGROUND

Burnout is a feeling of failure and exhaustion. It is felt both at the physical and emotional level. Depletion of the person's resources is a consequence and also has an impact on the organisation. Nature of the work itself makes emergency healthcare workers vulnerable to burnout.

METHOD

This study is designed to measure the degree of burnout among emergency healthcare workers in a hospital and to identify the factors that influence burnout. The study has been approved by the institutional ethical committee. After obtaining informed consent, doctors, nurses and other healthcare workers who are working in the Emergency Department of the Gauhati Medical College Hospital, Guwahati, will form the study population.

RESULT

Sixty two healthcare workers will constitute the sample for the present study. The Assamese translation of the Maslach Burnout Inventory (MBI) is the chosen tool to assess burnout. The data on demography, factors influencing the level of burnout, and the degree of burnout will be collected through structured questionnaires. The analysis is planned by both descriptive (such as mean, standard deviation, and frequency distribution) as well as inferential (non-parametric test such as Chi-square) statistics.

CONCLUSION

Knowledge about the degree of burnout among the emergency healthcare workers and the factors influencing burnout in hospital can help in devising methods to recharge the resources and motivation of the workforce and thus the organisation and thereby improve the overall performance of the healthcare system and patient outcomes.

KEYWORDS

Depersonalisation, Health Personnel, Demography.

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INTRODUCTION

Freudenberger^[1] first used the term burnout to describe the feeling of failure and exhaustion that can be observed in social workers that worked in institutions and it was the result of immoderate requirements of energy, effort and qualifications. Burnout is a state of physical, mental and emotional exhaustion that often results from a combination of very high expectation and persistent situational stress.

It describes a state of depletion of a person's resources, particularly energy due to excessive demands made on him as a result of which the individual becomes apathetic and impassive towards his work and other aspects of his life.

It has dysfunctional repercussions on the individual and adverse effects on the organisation. It may reflect in a continued dissatisfaction with the situation, ranging from mild boredom to severe depression, irritation, exhaustion, and physical ailment. The experience of too much pressure and very few sources of satisfaction can develop into a feeling of exhaustion leading to burnout.

Burnout is a psychological term for the negative response to chronic job-related emotional stress. In other words, burnout results from people giving too much of their time, energy and effort on the job over a long period of time without adequate time to recover physically or emotionally. The prevalence of burnout among physicians ranges from 25% to 60% and occurs at a level sufficient to affect personal or professional performance. Among nurses/midwives, 15%-85% have reported burnout. The prevalence varies by medical specialty and working conditions. When comparing nurses to physicians or other healthcare workers, nurses consistently reported higher levels of burnout.^[2]

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NEED FOR THE STUDY

Unfortunately, most of the studies on burnout in nursing have been conducted in Europe and United States. There are few studies from Asian countries. In view of the paucity of Indian studies in this area, the present work was undertaken to identify the predictors of burnout in an Indian healthcare population. As the socio-cultural background of Indian healthcare workers varies widely from their Western counterparts, we expected to identify predictors of burnout relevant to them. Finding predictors of burnout relevant in an Indian setting should have important policy implications in Human Resource Management in this sector in similar developing countries.^[3]

A health workforce crisis is crippling health service delivery in many low-income countries. High-income countries with high salaries and attractive living conditions are drawing qualified doctors and nurses from poorer countries to fill gaps in their own human resources pool. This migration of skilled labour is depleting human capital in many developing countries.^[4] The human resource crisis in India is acute.

Although burnout in large organisations has been examined in many studies, in general there has been a lack of concentration on healthcare workers and on hospital settings, especially in India. In addition, there are relatively few studies investigating burnout among Indian healthcare workers. To the best of investigators' knowledge, there is a paucity of such work in this field in the state of Assam, which is another major reason to undertake this study.

Moreover with the increasing complexities and the changing patterns of society, the stress in the environment leading to burnout is increasing day by day. Study of burnout and factors influencing it will therefore enable us to find out suitable ways to reduce stress among healthcare workers and thereby improving the quality of health care. Thus, the need for the study is felt.

Therefore, this study is designed to identify degree and factors that influence burnout among emergency healthcare workers in hospital.

STATEMENT OF THE PROBLEM

Degree of burnout among emergency healthcare workers and factors influencing level of burnout.

OBJECTIVES OF THE STUDY

1. To examine the degree of burnout reported by healthcare workers of Emergency Department.
2. To find out the relationship between burnout and demographic variables like age, sex, religion, marital status, years married, general and professional education, children and number of children.
3. To explore factors that may influence the level of burnout among healthcare workers working in Emergency Department.

HYPOTHESES

H1: There is significant association between burnout and socio-demographic variables.

H2: There is significant association between selected factors and burnout.

METHODOLOGY

SETTING OF THE STUDY

Gauhati Medical College Hospital (GMCH), Guwahati, Assam was selected as the setting of the study.

POPULATION

Doctors, nurses, and other healthcare workers who are working in the Emergency Department of GMCH.

SAMPLE

For the purpose of present study, 62 numbers of health care workers will be selected.

When sampling for a qualitative characteristic is done (i.e., to estimate the proportion of individuals with a certain characteristic in a population), one need to state:

- A rough approximation to the proportion (p). This 'p' value is taken from past experiences.
- The sampling error that can be tolerated (d). Usually, the assumption made is that 'd' does not exceed 10% to 20% of 'p'.
- The level of confidence or the accepted chance of an unlucky sample (conventionally 95% confidence limit or 5% chance).
- The required sample size is:

$$\text{Sample size, } n = \frac{4pq}{d^2};$$

where $q = 1 - p$

Baishya et al.^[5] in their study among nurses of the Maternity Department in GMCH, found in emotional exhaustion, the low-level, moderate, and high-level burnouts were 80, 18, and 2 respectively. In "depersonalisation," the low-level, moderate, and high-level burnouts were 39, 38 and 23, respectively. In personal achievement the low-level, moderate, and high-level burnouts were 84, 11 and 5, respectively.

From past experience, p = 61%; thus

$p = 0.61$

$q = 1 - 0.61 = 0.39$

$d = 20\% \text{ of 'p'} = 0.122$

Sample size, $n = (4 \times 0.61 \times 0.39) / (0.122)^2 = 61.40 \approx 62$.

SAMPLING TECHNIQUE

Random sampling method will be adopted for selecting the samples in the present study.

Inclusion Criteria

1. Health care workers who will be available during the data collection period (From September 2014 to August 2015).
2. Health care workers who are willing to participate in the study.

DESCRIPTION OF TOOLS

Demographic Proforma

It is prepared to gather the background information regarding the participations under study. It consists of eight items. Variables are socio-demographic data, e.g. age, sex, religion, marital status, years married, education, children and number of children.

FACTORS INFLUENCING LEVEL OF BURNOUT

It consists of 12 items. These are travelling time to work, working hours per week, doctor/doctor conflict or nurse/nurse conflict, nurse/doctor conflict, availability of doctors/nurses to work with, lack or inadequate nursing personnel, poor wages, too frequent night duties, inadequate security during night duties, job status, years in current job and additional work.

It was evident from the literature review that because of the very nature of the type of data required to be analysed to assess level of burnout and factors that may influence the level of burnout among health care workers, standardised tools are essential. After an extensive literature search, authors found that Maslach Burnout Inventory (MBI) is the

golden scale for assessing burnout among healthcare workers.

Burnout self-test (MBI) is subdivided into three categories:

- Section A – Emotional exhaustion.
- Section B – Depersonalisation.
- Section C – Personal achievement.

MBI contains 22 items which are answered as never, a few times per year, once a month, a few times per month, once a week, a few times per week and every day.

Section A – Emotional exhaustion contains seven items.

Section B – Depersonalisation contains seven items.

Section C – Personal achievement contains eight items.

SCORING

Section A: Emotional Exhaustion

Emotional Exhaustion: Testifies to fatigue at the very idea of work, chronic fatigue, trouble sleeping, physical problems. For the MBI as well as for most authors, "exhaustion would be the key component of the syndrome." Unlike depression, the problems disappear outside work.

- Total 17 or less: Low-level burnout.
- Total between 18 and 29 inclusive: Moderate burnout.
- Total over 30: High-level burnout.

Section B: Depersonalisation

"Depersonalisation" (or loss of empathy): Rather a "dehumanisation" in interpersonal relations. The notion of detachment is excessive, leading to cynicism with negative attitudes with regard to patients or colleagues, feeling of guilt, avoidance of social contacts and withdrawing into oneself. The professional blocks the empathy he can show to his patients and/or colleagues.

- Total 5 or less: Low-level burnout.
- Total between 6 and 11 inclusive: Moderate burnout.
- Total of 12 and greater: High-level burnout.

Section C: Personal Achievement

The reduction of personal achievement: The individual assesses himself negatively, feels he is unable to move the situation forward. This component represents the demotivating effects of a difficult, repetitive situation leading to failure despite efforts. The person begins to doubt his genuine abilities to accomplish things. This aspect is a consequence of the first two.

- Total 33 or less: High-level burnout.
- Total between 34 and 39 inclusive: Moderate burnout.
- Total greater than 40: Low-level burnout.

A high score in the first two sections and a low score in the last section may indicate burnout.

TRANSLATION OF THE SCALE

The inventory was translated from English into local language Assamese by an expert not related to this study. It was later back-translated into English by another independent expert, not acquainted with the original version.

The back-translation was subsequently compared with the original version by a psychiatrist for conceptual equivalence of the items. Necessary finer adjustments were made to convey the correct information to the participants.

RELIABILITY OF THE SCALE

The reliability of the scale was established by data collected from ten staff nurses, who are working in the Maternity Department of Gauhati Medical College Hospital. The reliability has been drawn by using Split-Half Spearman Brown Formula. The formula is as follows:

$$r_{SB} = 2r / (1+r)$$

where r is the Pearson Product moment correlation coefficient.

Reliability of Emotional Exhaustion

The calculated value of $r=0.79$

Hence, $r_{SB}=0.88$

Since the calculated value of r_{SB} (Reliability) is 0.88, which is highly reliable, the tool can be used for main study.

Reliability of Depersonalisation

The calculated value of $r=0.65$

Hence, $r_{SB}=0.79$

Since the calculated value of r_{SB} (Reliability) is 0.79, which is highly reliable, the tool can be used for main study.

Reliability of Personal Achievement

The calculated value of $r=0.76$

Hence, $r_{SB}=0.86$

Since the calculated value of r_{SB} (Reliability) is 0.86, which is highly reliable, the tool can be used for main study.

ETHICAL CLEARANCE

The study has been approved by the institutional ethical committee. Formal written administrative permission will be applied. Informed consent will be obtained from participants.

DATA COLLECTION PROCEDURE

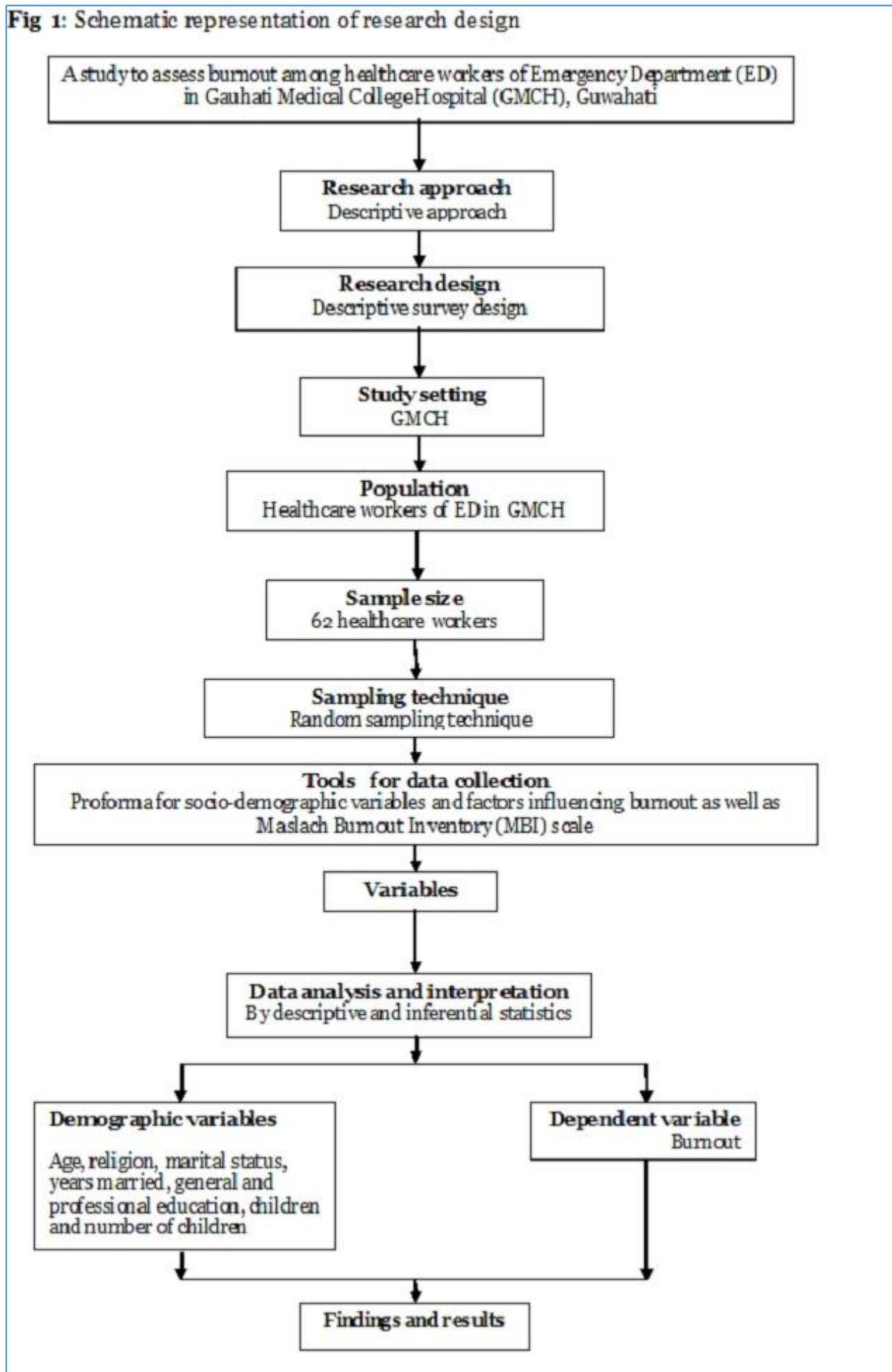
The period of data collection was from September 2014 to August 2015.

Data collected for the present study will be through structured questionnaires. The data on demography, factors influencing the level of burnout, and the degree of burnout will be collected using this method. Participants will be informed of the purpose of the study and those interested will be given questionnaires that included the measure employed in this study.

The test will be administered among doctors, nurses and other health care workers working in Emergency Department of GMCH. The investigator will give self-introduction and explain the purpose of the study to obtain free and frank responses. The participants will be assured confidentiality of their responses.

It will take a minimum of 10 to 15 minutes for the participants to respond to the questionnaire and investigator will be personally present each time the test will be administered.

Fig 1: Schematic representation of research design



RESULTS

Data analysis will be planned on the basis of objectives of the study using statistical methods of descriptive and inferential statistics. The raw data will be transformed on a master data.

The analysis is planned by

- Data obtained will be analysed using descriptive statistics such as mean, standard deviation and frequency distribution.
- Non-parametric test such as Chi-square test will be carried out to determine the variables on which the groups differed significantly as well as to examine the associations between the variables.

Burnout (Emotional exhaustion, “depersonalisation” and personal achievement)

Sl. No.	Burnout	Mean	Median	SD	SE
1	Burnout (or emotional exhaustion)				
2	“Depersonalisation” or loss of empathy				
3	The reduction of personal achievement				

Table 1: Burnout (Emotional exhaustion, “depersonalisation” and personal achievement) N= 62

SD=standard deviation, SE=standard error

DISCUSSION

The results of the present study will be discussed in reference to the earlier studies. O’Mahony.^[6] conducted a study among emergency nurses in Emergency Department, Cork University Hospital, Ireland. The results indicated that 52% of nurses experienced high levels of emotional exhaustion and depersonalisation, which are significantly related to the nature of their work environment.

Bagaajav et al.^[7] conducted a study in Department of Social Sciences and Humanities, School of Public Health, Health Sciences University, Mongolia. The aim of the study was burnout and job stress among Mongolian doctors and nurses. The results indicated that doctors and nurses had higher burnout rates, with personal, work-related and client-related average scores of 45.39, 44.45, and 32.46, respectively. Multiple regression analysis revealed that Effort-Reward Imbalance (ERI) significantly influenced all dimensions of burnout but over-commitment significantly influenced only personal and work-related burnout. Both ERI and over-commitment were different among professions.

Bühler and Land.^[8] conducted a study in Julius-Maximilians-University in Würzburg, Germany, aiming to determine the relationship between burnout and personality variables of people who are working in intensive care unit. Data was collected by using Maslach Burnout Inventory (MBI) as well as certain subscales of the following personality questionnaires were applied: Eysenck Personality Inventory (EPI), Inventory of Aggressivity (IA), Trier Personality Questionnaire (TPQ), Scales of Control (SC), Locus of Control (LC), and the Logo-test (LOGO).

Psycho-protection, external locus of control, and neuroticism were confirmed as being statistically relevant concerning burnout. The study suggests that burnout might be prevented/decreased by changing irrational beliefs to

rational beliefs, decreasing negative automatic thoughts and facilitating positive automatic thoughts. Khanna and Khanna.^[9] conducted a study in Rajasthan to measure the prevalence of stress and burnout in medical professionals.

The result showed that 29.16% of medical professionals showed high level of emotional exhaustion; 20% showed high level of depersonalisation; and 17.9% showed low personal accomplishment. Young professionals showed more sensitivity towards burnout. Females were more prone to burnout as compared to males. The study suggests that difference in approach to work and perceived environment at workplace, unrewarding career, unsupported behaviour of peer group, balance between work and family needs appear to be important factors in burnout.

Mazumdar et al.^[10] conducted a study among employees from both urban and metro areas from Guwahati, Assam with the primary aim to identify the variables that lead to workplace stress of employees in selected organisations. The study showed that the level of job stresses in different organisations and attempts made to relieve job stress were found to be higher in rural employees than urban employees. Physical, environmental and social were the main factors which cause stress onto the individuals. Eighty six percent of the respondents were suffering stress-related health problems.

CONCLUSION

Future directions will be stated in backdrop of the limitations. Findings of the proposed study will have several implications in terms of improving resources and environment in the Emergency Healthcare Delivery System.

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