



**To assess the perceived burnout symptoms and coping strategies among critical care nurses in selected hospitals of Pune City with a view to develop an information booklet on burnout management**

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**Authors:**

**Mallikarjuna Kuruva**

*Symbiosis International University, Pune, India*

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## Abstract

Burnout is a form of chronic stress related to one's job. The study aims to identify the association between the selected demographic variables of the samples and the perceived symptoms of burnout of critical care nurses, to find correlations between the symptoms of burnout and coping strategies. A Descriptive Research Design with Survey approach and Cluster Sampling Technique is used to select a sample (n=60). Tool was developed in 3 sections which includes Demographic variables, Structured Self report Questionnaire on Perceived symptoms of burnout and Self Structred Questionnaire on Coping Strategies. Reliability of Tool calculated by Chronbach's Alpha method using SPSS and reliability found to be 0.931 for Structured Self report Questionnaire on Perceived symptoms of burnout, Reliability 0.801 for Self Structred Questionnaire on Coping Strategies. The sample consists of 68.3% of age group 23-26 years, and 78.3% Unmarried. Only 2% of respondents were suffering from severe burnout, 50% of respondents with moderate burnout and 46.7% mild burnout. Only 3.3% respondents were having poor coping strategies and 46.7% of respondents showd good coping strategies and 50% of respondents shown excellent coping strategies. Conclusion of the study is the Perception of burnout symptoms was inversely proportional to the level of coping strategies as its very clear that as the coping levels of the respondents increases, the perception of burnout symptoms was decreased. There was significant association between burnout and education, coping and working area, burnout scores and education. Using non parametric method Spearman Rho, found that 48.4% negative correlation between burnout and coping variable which is at 5% level of significance.

## Introduction

Burnout:

1. Rendering unserviceable by excessive heat.
2. Exhaustion due to chronic job stress. It is characterized by physical and emotional fatigue and sometimes physical illness. Frustration from a perceived inability to end the stresses and problems associated with powerlessness in one's job contribute to loss of concern for patients or good job performance. Health care professionals are especially prone to burnout, particularly those working in highly stressful conditions.<sup>[1]</sup>

## Need for the study

It is often assumed that health care workers choose job as they find meaning in the tasks they engage in but overtime this meaning would be lost in the everyday challenges of work, and people forget the pull they felt when they first stated the careers. For health care employees, the work itself can be intense and cause burnout overtime.<sup>[2]</sup>

The quality of nurses work experience can be captured by the continuum of burnout to engagement. Burnout is a psychological syndrome that involves a prolonged response to chronic interpersonal stressors on the job. The 3 key dimensions of this response are an overwhelming exhaustion, feelings of cynicism and detachment from the job, a sense of ineffectiveness and lack of accomplishment.<sup>[3]</sup>

Study conducted by Marie Cecile Poncet et al. concluded form their study burnout syndrome in critical care nursing staff of France, oout of 2392 respondents (82% females), 80% were nurses, 15% nursing assistants and 5% head nurses. Severe burnout syndrome related symptoms were identified in 790 (33%) respondents. One third of ICU nursing staff had severe burnout syndrome. Areas for improvement identified in the study include conflict prevention, participation in ICU research groups, and better management of end of life care. Interventional studies are needed to investigate these potentially preventive strategies.<sup>[4]</sup>

### Duration of the study:

September 2011 to May 2013

### Objectives of the Study:

1. To assess the perceived burnout symptoms among critical care nurses.
2. To identify the coping strategies used by the critical care nurses to prevent or deal with burnout.
3. To associate perceived burnout symptoms with the selected demographic variables.
4. To find correlation between perceived burnout symptoms and coping strategies among critical care nurses.

### Operational Definitions:

1. **Burnout:** the state of having no energy or enthusiasm because of working too hard, or some one who shows the effects of this state.<sup>[5]</sup>

**In the study :** Burnout is the state of no energy or motivation to work due to prolonged stress and result in neglect

of the patient and the self.

**2. Coping strategies:** Coping strategy is a behavior that helps us to function better in a given situation.<sup>[6]</sup>

In the study: methods adopted by critical care nurses to prevent or deal burnout which helps to maintain a positive attitude toward the work.

**Critical care nurses:** A critical care nurse is a licensed professional nurse who is responsible for ensuring that acutely and critically ill patients and their families receive optimal care.<sup>[7]</sup>

**In the study:** Nurse who is working in the intensive care unit and is involved in the patient care.

#### **Hypothesis:**

**H<sub>0</sub>:** There is no significant correlation between perceived burnout symptoms and coping strategies among critical care nurses.

**H<sub>1</sub>:** There is a significant correlation between perceived burnout symptoms and coping strategies.

#### **Delimitations:**

The study is limited to the critical care nurses of the selected hospitals of the Pune city.

1. The study is limited to staff nurses only.
2. The study is limited to the critical care nurses who are with minimum one year of experience.

#### **Limitations:**

The response to questions may be subjective.

#### **Research Variables:**

Perceived burnout symptoms, coping strategies & critical care nurses.

#### **Scope of the Study:**

The study will prove to be valuable in the following ways:

1. This study would help to find out the perceived burnout symptoms and their coping strategies.
2. This study would help the nurse administrators to know the levels of burnout the staff nurses were experiencing and help them to plan appropriate interventions.
3. Administration would continue impart in-service education on the aspect of burnout and its management.

4. This study would help nurse educators to identify the importance of teaching the concepts of burnout to the nursing students.

#### **Sample and Sampling Technique:**

The study was based on cluster sampling or multistage sampling technique.

Cluster sampling is an effective and efficient method to collect data from larger populations. A manageable sample is obtained by randomly selecting elements from larger to smaller clusters or subsets of population.<sup>[8]</sup>

In this study the subjects were 60 critical care nurses from selected hospitals of Pune city, fulfilling the sampling criteria. Cluster sampling was used with lottery method for selecting the sample.

#### **Method of Data Collection:**

Structured self report questionnaire is used to assess the perceived symptoms of burnout and coping strategies among nurses. It is a method of gathering information from the respondent through self administered questionnaire. The reason for selecting this method is that all the nurses are educated.

#### **Tools and Techniques:**

The tool for the study was prepared by referring to books, internet search and related researches. Blue print for the sections was prepared and then the items were finalized. For each section separate criteria checklist was prepared.

There are so many standardized tools available to measure burnout and coping strategies but the researcher decided to prepare the tool as the reliability of an instrument is not a property of the instrument but rather of the instrument when administered to a certain sample under certain conditions.<sup>[8]</sup>

The reasons for not choosing the standardized tool of Maslach Burnout Inventory was the researchers agreement with the questions raised by the Tage S. Kristinen, Marianne Borritz, Ebbe Villadsen & Karl B. Christensen such as circular argument, unclear relationship between MBI and concept of burnout. The translation of questionnaires from one culture (usually the U.S.) to another is a complicated issue. Very often the main emphasis is put on technical problems and precise back translations while the issues of cultural, gender, and socio economic differences tend to be ignored. The three MBI questionnaires (including the MBI-ES, for teachers) are not in the public domain but distributed by a

commercial company. This means that the full questionnaires with response options are not available in normal scientific journal articles.<sup>[9]</sup>

The research tool included mainly 3 sections:

### Section I: Demographic characteristics of participants

It mainly contained all the demographic aspects for critical care nurses covering the important areas like level of education, years of clinical experience, designation in the unit, nurse patient ratio in the unit, previous knowledge or continuing education about burnout.

### Section II: Structured self structured questionnaire to assess burnout

This questionnaire regarding assessment of perceived burnout symptoms of burnout which include physical symptoms, psychological symptoms, and interpersonal or social effects.

Likert type scale consists of statements on which respondents indicate whether they agree or disagree on a continuum of five points.<sup>[8]</sup>

### Section III: Structured self structured questionnaire to assess coping strategies to prevent or deal with burnout.

The investigator has prepared this tool for assessing coping strategies to prevent or deal with burnout includes both the positive and negative coping strategies to cope up with the burnout.

### Section: I Demographic characteristics of participants:

1. Gender
2. Age
3. Marital status
4. Education
5. Have you attended any continuing education about burnout No/Yes ;If yes, please specify source of information
6. Years of experience as critical care nurse
7. Designation in the unit with years of experience
8. Hours of working per week
9. Area of working (medical / surgical / cardiac etc.,)

**Section : II**

**Structured questionnaire on perceived symptoms of burnout:**

**Instructions:**

Please tick ( ✓ ) mark the symptoms of burnout at your work place with appropriate response  
Please try to answer all the questions

sr.no	Statement	Always	Sometimes	Once in a while	Rarely	Never
1.	I feel exhausted after the work					
2.	I experience appetite disturbances					
3.	I experience palpitations during the course of work					
4.	I experience head ache after the duty					
5.	I suffer from sleeplessness					
6.	I neglect self care as I have very little time to care for me					
7.	I experience leg pain					
8.	I feel angry toward patients					
9.	I feel afraid of getting accidental infections like HIV, HBV, MRSA etc.,					
10.	I feel depressed due to feelings of incompetency					
11.	I have fear of making mistakes in the duty like medication errors					
12.	I am not punctual in arriving to work					
13.	I feel I am not suited to the nursing profession					
14.	I feel I am working only for the benefit of patients at the cost of my health					
15.	I experience tension due to work load					
16.	I feel emotionally detached from patients					
17.	My concentration level decreased					
18.	I feel dissatisfied even with personal accomplishments					
19.	I feel that smoking or taking alcohol/ any other drugs relieve my stress					
20.	I feel patients are irritating me					
21.	I feel like changing the profession					
22.	I am unable to communicate work frustrations with family, friends and colleagues					
23.	I feel jealous of coworkers/seniors.					
24.	I neglect my family obligations like caring of children, festival celebrations etc.,					
25.	I neglect social obligations like attending marriages, birthday parties etc.,					
26.	I face conflicts with my family members					

### Section III : structured questionnaire to assess coping strategies to prevent or deal with burnout

#### Instructions:

Please tick ( ✓ ) mark the coping strategies you use to prevent or deal with burnout with an appropriate response in the space provided

Please try to answer all the questions

How important are each of the following strategies to help you function effectively and maintain a positive attitude towards your work?

S.no	Statement	Always	Sometimes	Once in a while	Rarely	Never
1.	I engage in physical activities like exercise, swimming etc.,					
2.	I engage in hobbies which I like the most like listen to music etc.,					
3.	I manage my time to maintain balance between personal and professional life					
4.	I am aware of ill effects of burnout and I am ready to cope up with it.					
5.	I spend a good amount of time with spouse/partner/family.					
6.	I plan my work responsibilities					
7.	I maintain my sense of humor.					
8.	I maintain a good amount of time with friends.					
9.	I reflect on satisfying experiences of work.					
10.	I perceive patient's problems as interesting.					
11.	Changing work responsibilities will help me to relax					
12.	I remain active in professional development by attending continuing education classes or in-service education					
13.	I discuss work frustrations/seek support from colleagues					
14.	I prefer to come late for my duty					
15.	I make an appointment with my physician for treatment of burnout symptoms					
16.	I define my role within the team					
17.	I don't say 'NO' to take additional responsibility even when I feel I am unable to complete the task in time.					
18.	I discuss work frustrations with my spouse/partner/family.					
19.	I turn to spiritual beliefs/activities.					
20.	I communicate my perceived burnout symptoms with my in-charge					
21.	I feel like an equal member of the health care team					
22.	I take alcohol/ smoke cigarette / ganja / charas / heroin, cocaine etc.,					
23.	I take vacation the very next day if I experience a heavy work load					
24.	I go to the movies					

**Note:** all the statements in the self structured questionnaire are scored in same fashion to avoid confusion as burnout itself is a negative concept. Putting negative statements will cause confusion among respondents. So scoring is as follows for all the 25 questions

Statements	Always	Sometimes	Once in a while	Rarely	Never
scoring	4	3	2	1	0

### Levels of burnout:

Level of burnout	Score
None	0
Mild burnout	1-35
Moderate burnout	36-70
Severe burnout	71-104

### Section III: structured self report questionnaire to assess coping strategies to prevent or deal with burnout

#### Scoring

Scoring	Always	Sometimes	Once in a while	Rarely	Never
Positive statements	4	3	2	1	0
Negative statements	0	1	2	3	4

#### Grading of coping strategies

Sno	Grading	Score
1	Adequate	65-96
2	Neutral	33-64
3	Inadequate	0-32

### Blue Print of Structured Questionnaire on coping strategies to deal with Burnout

Sr.No.	Content	No. of Items	Sr.No. of Items in the Questionnaire	% of Items
1.	Positive Coping Strategies	19	1,2,3,4,5,6,7,8,9,10,12,13,15,16,18,19,20,21,24	79.2%
2.	Negative Coping Strategies	5	11,14,17,22,23	20.8%

#### Validity of the Tool:

Validity is the degree to which an instrument measures what it is supposed to measure.<sup>[8]</sup>

Content validity of the tool was done in 2 phases. In the first phase, tool along with the checklist was given to the experts like professors, associate professors, psychiatrists, counselors, and psychiatric social workers. The tool given for the content validation to experts in personal and through the email. In the second phase corrected tool was given to the selected experts for content validation. Tool was finalized after all the experts came to acceptance with all the items of the questionnaire.

Tool was converted to Marathi and the language expert validation was obtained for both the English and Marathi tool.

#### Reliability:

Instruments are considered reliable when researchers obtain consistent measurements over time. Reliability must be considered in relation to validity. Estimates of reliabil-

ity are usually presented in the form of a correlation coefficient, with +1.00 indicating perfect reliability and 0.00 reflecting absence of reliability. Chronbach's alpha is the most common method used by the nursing researchers to asses internal consistency.<sup>[9]</sup>

Coefficient of alpha usually used as an index of internal consistency to estimate the extent to which subparts of an instrument are reliably measuring the critical attribute. Scales and tools that involve summing item scores are almost always evaluated for internal consistency.

Structured questionnaire to assess perceived symptoms of burnout.

#### Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.931	.926	26

## Structured questionnaire to assess coping strategies to prevent or deal with burnout

### Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.801	.805	24

In this study the reliability of the tool was calculated by the Chronbach's alpha method using SPSS software and the results were 0.931 for the structured self report questionnaire on perceived burnout symptoms and 0.801 for the structured self report questionnaire to assess coping strategies to prevent or deal with burnout.

### Pilot Study:

A pilot study is a small scale version or trial run designed to test the methods to be used in a larger, more rigorous study, which is sometimes referred to as parent study. The purpose of pilot study is to prevent an expensive fiasco-the misfortune of undertaking a costly but flawed large scale study.<sup>[8]</sup>

Therefore, a pilot study was conducted in a selected hospital of Pune city after getting the permission from the hospital authorities to conduct the study. This study was undertaken in order to ensure the feasibility and the predictability of the research methodology & tool.

The tool was given to the critical care nurses in 3 different shifts of the duty. A total of 10 sample was selected for the pilot study as per the established criteria. It was observed that all the nurses were enthusiastic to participate in the study.

Pilot study helped the researcher to estimate the feasibility timings for the administration of tool and also helped to get familiarized with the sampling method.

No corrections were done to the tool after the pilot study as the respondents were comfortable to answer all the questions in the tool.

### Process for Data Collection:

Formal permission is obtained from the concerned authorities of selected hospitals of Pune city. Self administered questionnaires are distributed to 60 critical care nurses working in intensive care units in all the 3 shift duties. All the nurses were receptive and cooperative during data collection.

### Findings:

#### PERCEIVED BURNOUT LEVELS OF THE RESPONDENTS

	Burnout score	Total	Percentage distribution
1.	Mild burnout	28	46.7%
2.	Moderate burnout	30	50%
3.	Severe burnout	2	3.3%
	Total	60	100

From the above table it can be concluded that only 2 % of respondents were suffering from severe burnout. Majority of the nurses i.e., 50% showed moderate burnout and 46.7% showed mild burnout.

#### COPING LEVELS OF THE RESPONDENTS

	Poor		Good		Excellent	
	Count	%	Count	%	Count	%
Coping score	2	3.3%	28	46.7%	30	50.0%

From the above table it can be concluded that only 3.3 % of the respondents were having poor coping strategies, and 46.7% of respondents showed good coping strategies and majority i.e., 50% of respondents showed excellent coping strategies.

#### COMPARISON OF CALCULATED CHI SQUARE VALUE WITH CRITICAL VALUES

	Demographic variable	Degrees of freedom	Calculated chi square value	Critical value		
				10% level of significance	5% level of significance	2% level of significance
1	Marital status	2	1.782	4.61	5.99	7.82
2	Education	6	13.250	10.64	12.59	15.03
3	Previous knowledge	2	0.370	4.61	5.99	7.82
4	Working area	10	6.299	15.99	18.31	21.16
5	Gender	2	3.851	4.61	5.99	7.82
6	Age	6	14.823	10.64	12.59	15.03
7	Working time	4	11.807	7.78	9.49	11.67
8	Experience	6	11.963	10.64	12.59	15.03



### ASSOCIATION BETWEEN SELECTED DEMOGRAPHIC VARIABLES AND PERCEIVED SYMPTOMS OF BURNOUT

Demographic variable	10 % level of significance	5% level of significance	2% level of significance
Marital status	No association	No association	No association
Education	Significant association	Significant association	No association
Previous knowledge of burnout	No association	No association	No association
Working area	No association	No association	No association
Gender	No association	No association	No association
Age	Significant association	Significant association	No association
Working time	Significant association	Significant association	Significant association
Experience	Significant association	No association	No association

From the above table, it can be inferred that there was significant association between education, age, experience and working time with the perceived symptoms of burnout. Whereas, previous knowledge of burnout, working area, gender had shown no significant association with the perceived symptoms of burnout.

### CORRELATION BETWEEN BURNOUT SCORES AND COPING STRATEGIES

			Burnout Score	Coping score
Kendall's tau_b	Burnout Score	Correlation Coefficient	1.000	-.469**
		Sig. (2-tailed)	.	.000
		N	60	60
	Coping score	Correlation Coefficient	-.469**	1.000
		Sig. (2-tailed)	.000	.
		N	60	60
Spearman's rho	Burnout Score	Correlation Coefficient	1.000	-.484**
		Sig. (2-tailed)	.	.000
		N	60	60
	Coping score	Correlation Coefficient	-.484**	1.000
		Sig. (2-tailed)	.000	.
		N	60	60

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Using Non-parametric method we found that 48.4 % Negative Correlation between burnout and coping variable which is at 5% level of significance.

**r= -0.4884 at 5% level of significance**

### SUMMARY, CONCLUSION, IMPLICATION AND RECOMMENDATION

A descriptive survey approach was undertaken to assess the Perceived burnout symptoms and coping among critical care nurses in the selected hospitals of the Pune city.

The objectives of the study were

1. To assess the perceived burnout symptoms among critical care nurses
2. To identify the coping strategies used by the critical care nurses to prevent or deal with burnout
3. To associate perceived burnout symptoms with the selected demographic variables
4. To find correlation between perceived burnout symptoms & coping strategies among critical care nurses

The investigator felt that this study would help nurses in preventing them to get burnout syndrome, physical and psychological ill health accompanied with burnout by distributing health education module on “burn out management”.

Review of literature helped the investigator to get insight into the present problem, to gain in depth knowledge for developing the conceptual framework for the study, to develop the information booklet, and to prepare the tool for data collection.

The investigator adopted of formed the theoretical framework based on Roy’s adaptation model. A descriptive survey approach was used. Cluster random sampling technique was used to select a sample of 60 nurses who were working in ICU.

The self administered questionnaire was prepared to assess the perceived burnout symptoms, and a coping checklist to know the coping strategies utilized by the

nurses to overcome burnout. Validity was done with the help of different experts.

After getting permission from hospital authorities, the investigator started the study. Data collection was done with the help of self administered questionnaire, on Perceived burnout symptoms and coping strategies. The structured self administered questionnaire has 3 sections. Section I deals with demographic characteristics of participants and section II deals with the assessment of Perceived burnout symptoms and Section III deals with assessment of the coping strategies which are used to prevent or deal with burnout.

The questionnaire was distributed to nurses working in various intensive care units in all 3 the shifts i.e., morning, afternoon and night in the different selected hospitals of the city. Depending on the objectives of the study the data was collected, analyzed and interpreted. Descriptive and inferential statistics was used for data analysis and interpretation. The major findings were summarized as follows.

#### Findings related to sample characteristics:

##### As per the first objective, the study findings are:

- the age group of 23-26 years (68.3%), and remaining are 27-30 years (11.7%), and 10% each belong to the age group of below 22 years and above 30 years.
- the group of single (78.3%) and followed by married (21.7%).
- completed their Bsc Nursing (65%), and remaining were Post Basic Bsc Nursing (1.7%), General Nursing and Midwifery (11.7%), Auxillary Nursing & Midwifery (21.7)
- don't have previous knowledge about burnout (88.3%), followed by 11.7% of the sample with the previous knowledge of burnout.
- working in the medical ICU (35%), remaining sample were working in the Cardiac ICU (26.7%), Neonatal ICU (15%), Surgical ICU (10%) Neuro ICU (11.7%), Highly dependency ICU (1.7%).
- working in the both shifts i.e., day and night shifts in a week (76.7%), remaining were working only in the day shift (18.3%), night shift (5%).

##### As per second objective, the study findings are:

- only 3.3 % of the respondents were having poor coping strategies, and 46.7% of nurse shown good coping strategies and majority i.e., 50% of nurses shown excellent coping strategies.

##### As per the third objective, the study findings are:

- there was significant association between burnout and education.
- there was significant association between coping and working area.
- there was significant association between burnout scores and education.

##### Depending upon burnout scores, the distribution of nurses were

Only 2 % of critical care nurses are suffering from severe burnout. Majority of the nurses i.e., 50% showed moderate burnout and 46.7% showed mild burnout.

##### Conclusions:

As the coping strategies are more, less burnout was resulted in the critical care nurses

##### Delimitations of the study:

- The study is limited to the critical care nurses of the selected hospitals of the Pune City.
- The study is limited to the staff nurses only.
- The study is limited to the critical care nurses who are with minimum one year of experience.

##### Limitations of the study:

The response to the questions may be subjective.

##### Implications:

###### For nursing practice

- Continuing education programmes, workshops to be conducted for nurses on "burnout management and ill effects of burnout"
- Provide guidance and counseling services to nurses to find out stressors affecting them
- Periodic evaluation of stressors at work place by the nurse supervisors

###### For nursing administration

- Assess rate of absenteeism, turnover of nurses in organization and its relation to burnout
- Provide yoga, meditation, relaxation services to nurses
- Plan for staff development programs
- Make policies, and procedures on internal rotation of staff

### For nursing education

- Incorporate concept of burnout, theories of burnout, its ill effects in all physical, psychological and social aspects of curriculum.
- Plan field visits to stress management clinics
- Provide learning environment to various burnout management program

### For nursing research

- Research can be done in following aspects
- Job satisfaction and its relation to burnout
- Stressors among nurses
- Effects of burnout on nurses in terms of physical, psychological and social problems

### Recommendations:

The following recommendations are made for future research based on the study findings

- Similar study can be conducted on student nurses
- Study can be replicated with large sample in different settings by including few more demographic variables
- Study can be replicated in different setting
- Comparative study can be done between nurses working in government and private settings.

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