

## Burnout among healthcare professionals in Nepal: An analytical study

Shrestha MV<sup>1</sup>, Manandhar N<sup>1</sup>, Joshi SK<sup>1</sup>

<sup>1</sup>Department of Community Medicine, Kathmandu Medical College, Kathmandu, Nepal

### ABSTRACT

**Introduction:** The greater risk of burnout among healthcare professionals is likely to develop an adverse effect on their personal life and the patients' care. The main aim of this study was to assess the levels of burnout experienced by healthcare workers.

**Methods:** A cross-sectional study was conducted from November 2020 to March 2021 among healthcare professionals working in different institutions. A convenient sampling technique was applied. An online questionnaire was developed using Google Forms.

**Results:** The total burnout score among health professionals ranged from low (9.5%), moderate (89.5%) to high (1%). The burnout scores reported were of moderate level among doctors (89%) and nurses (92.2%). There was a negative correlation between burnout and compassion satisfaction ( $r = -0.207$ ;  $p < 0.003$ ). Healthcare professionals perceived burnout from time pressure (22.2%), followed by administrative work (20.1%) and dealing with patient's relatives (13.5%). The identified effective way to minimize burnout was family support (29.1%), friends (21.2%), and their interest/hobbies (15.4%).

**Conclusion:** Healthcare professionals in Nepal bear a moderate level of burnout. The main sources of burnout experienced by health workers were time pressure, administrative work, and dealing with patients' relatives.

**Key words:** Burnout; Compassion, Health worker, Satisfaction

### Introduction

Burnout is a common psychological phenomenon among healthcare professionals.<sup>1</sup> It is characterized by "a decline in physical, emotional, and psychological energy resulting from work-related stress that leads to cynicism toward clients and colleagues and feelings of low self-efficacy".<sup>2</sup> Overloaded duty, poor management, insufficient resources, conflict in work place and lack of team spirit may cause the burnout.<sup>3</sup> Burnout has serious consequences in personal life,

family, society and work place and the main problems arises are absenteeism, sequential delays, number of complaints, frequent job change and conflicts with colleagues.<sup>4</sup>

Stress and burnout are quite prevalent phenomena among health professionals.<sup>5</sup> It is estimated that the healthcare workforce represents 12% of the working population worldwide.<sup>6</sup> Thus, there is a high work load among team members so they are at constant risk of burnout. Healthcare is considered as one of the most hazardous occupation in the world.<sup>7</sup>

In Nepal, adequate attention has not been provided to burnout issues among health workers, as most attention is directed mainly towards the occupational health and safety of the health worker arising due to diverse hazards related to work-related activities.<sup>8</sup> This study will provide a glimpse of this widespread burning issue in Nepalese context. The main aim of this study is to assess the levels of burnout experienced by healthcare workers.

**DOI:** <https://doi.org/10.3126/ijosh.v11i2.37259>

Conflicts of interest: None  
Supporting agencies: None

Date of submission: 24.05.2021  
Date of acceptance: 13.06.2021  
Date of publication: 20.06.2021

#### Corresponding Author

Dr. Marina Vaidya Shrestha MBBS MD  
Assistant Professor,  
Department of Community Medicine,  
Kathmandu Medical College, Kathmandu University,  
Kathmandu, Nepal  
Email: [merinavs@gmail.com](mailto:merinavs@gmail.com)  
ORCID ID: <https://orcid.org/0000-0001-7761-3604>



This journal is licensed under a Creative Commons Attribution-Non Commercial 4.0 International License.

## Methods

This descriptive cross-sectional study was conducted from November 2020 to March 2021 among health workers working in different institutions in Nepal. A convenient sampling technique was used to select study units and the sample size was calculated using the formula,

$$n = Z^2P(1-p)/d^2$$

where,

n = sample size

z = level of confidence according to the standard normal distribution (for a level of confidence of 95%, z = 1.96)

p = prevalence of burnout = 9.90% = 0.099 (Burnout among Healthcare Professionals in Ghana: A Critical Assessment)<sup>9</sup>

d = tolerated margin of error = 4%

$$n = \frac{(1.96)^2 \times 0.099(1-0.099)}{(0.04)^2} = 214.16 \sim 215$$

Adding a non-response rate of 10%, the required sample size obtained was 237.

Ethical approval was taken from the Institutional Review Committee of Kathmandu Medical College. The data was collected online with the help of Google forms. Pretest was conducted by distributing the survey questionnaire among 10 randomly selected interns and post-graduate doctors (who were not included in this study) to assess its validity and readability. Some changes were made like sharing of name, email, telephone number, hospital name etc before the final questionnaire survey was distributed to the research participants. All the eligible participants were subsequently contacted through email, viber group, messenger and invited to fill in the information. Three consecutive follow up reminders were sent to the non-responders at three days' intervals. The questionnaire was used to collect information on demography and professional quality of life scale (PROQOL)<sup>10</sup> for assessing the burnout. The ProQOL consisted of 3 subscales: burnout, secondary traumatic stress and compassion satisfaction. The ProQOL is a 30 item self-report measure on a 5-point scale from 1=never to 5=very often. Scores for 3 subscales were computed by aggregating the scores of 10 specific items. Scores less than 22 was low level, between 23 and 41 was moderate and scores 42 or more was considered as high level of scale for burnout, secondary traumatic stress and compassion satisfaction.

Responses from the Google Form were downloaded in the excel sheet format. Repeated data was cleared

and coding for the responses was done. The data were analyzed using the Statistical Package for the Social Sciences software (SPSS) 20. Chi-square test and correlation analysis (Pearson's correlation) was applied.

## Results

A total of 200 healthcare workers participated in the study and the response rate was 84.3%. Table 1 showed the socio-demographic characteristics of the study participants with relation to burnout. The study revealed that 46% of the total respondents were between the age group of 31 to 40 years. While 55.5% of them were females, most of them belong to Hinduism (94.5%) and were married (68%). Most of the respondents belonged to Janajati (38.5%), and majority (49.5%) had master's level of education. It was also observed that most of the respondents were doctors (67.5%), and 42.5% of them had 1-5 years of working experience. Moreover, 69 % of the respondents were associated with Teaching hospitals and 52% of them had average working hours of less than 8 hours.

Table 2 represents the burnout scores among healthcare professionals: doctors, nurses, laboratory assistants, radiographers, optometrist and audiometric. The total burnout score among health professionals ranged from low (9.5%), moderate (89.5%) to high (1%). The burnout scores were reported of moderate level among doctors (89%) and nurses (92.2%). Similarly, Secondary traumatic scale ranged from low (21.5%) to high (78.5%) which was more among doctors at moderate level (73.3%).

Table 3 presents the correlation between burnout, secondary traumatic scale and compassion satisfaction. There was a negative correlation between two variables (Burnout and compassion satisfaction,  $r = -0.207$ ;  $p < 0.003$ ). However, positive correlation between Burnout and secondary traumatic scale was identified ( $r = 0.247$ ;  $p = 0.000$ ).

Result shows that most of the healthcare professionals perceived burnout from time pressure (22.2%), followed by administrative work (20.1%) and dealing with patients' relatives (13.5%). The least pressure was encountered during individual decision making (5.8%) (Figure 1).

Figure 2 represents the most common coping mechanism adopted by health workers against burnout. They reported that the effective way to minimize burnout was family support (29.1%), friends (21.2%), and their interest/hobbies (15.4%).

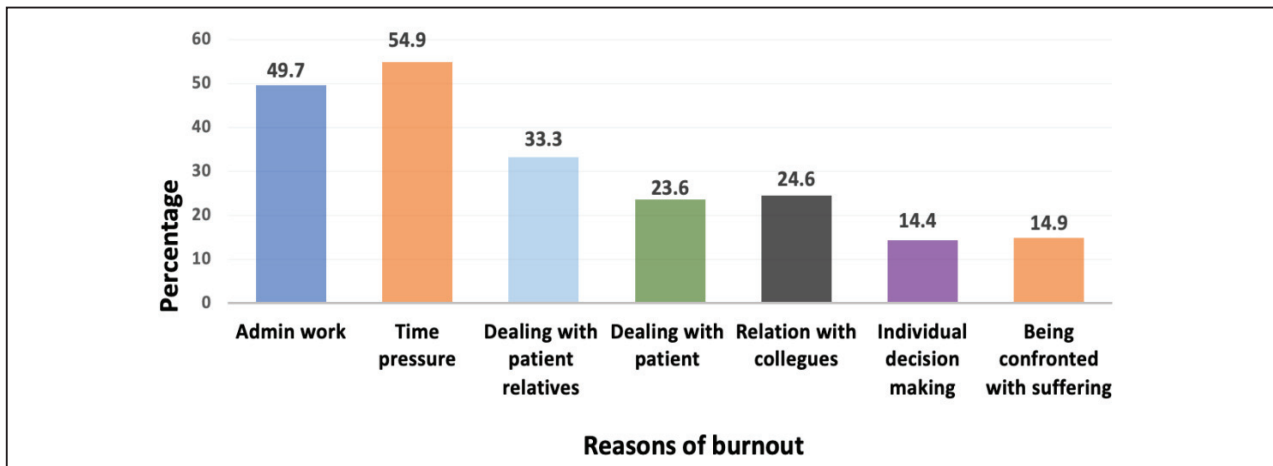


Figure 1: Reasons of perceived burnout (Multiple responses)

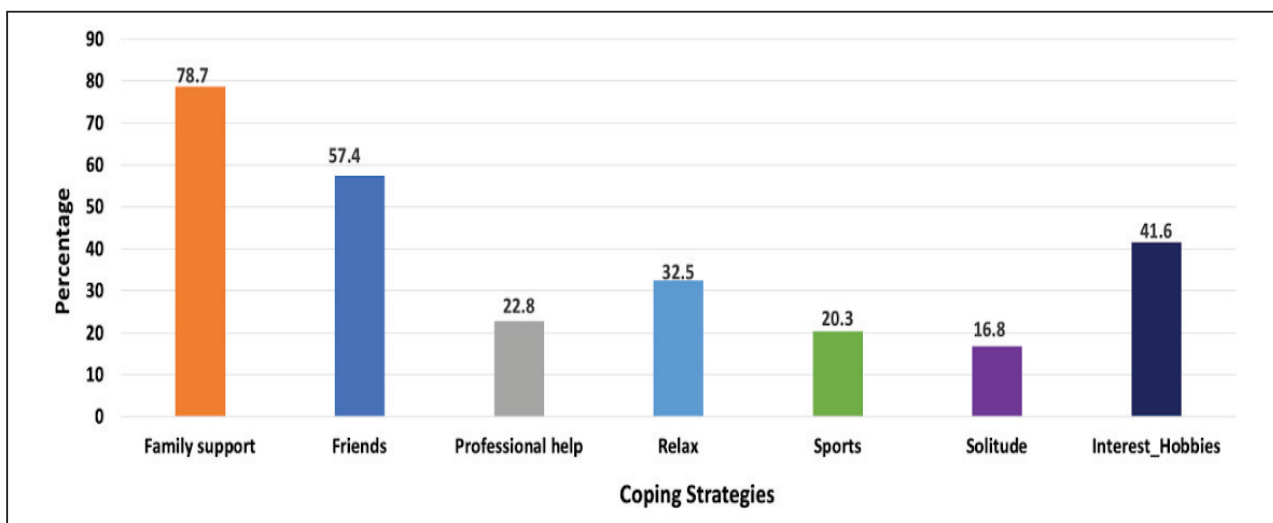


Figure 2: Coping strategy for burnout (Multiple responses)

Table 1: Socio-demographic variables of the respondents (n=200)

Variables	n (%)	Burnout n (%)
<b>Age(years)</b>		
≤19	5(2.5)	4(80.0)
20-30	65(32.5)	63(96.9)
31-40	92(46.0)	82(89.1)
41-50	30(15.0)	28(93.3)
51-60	8(4.0)	8(100.0)
<b>Sex</b>		
Male	89(44.5)	81( 91)
Female	111(55.5)	104(93.7)
<b>Marital status</b>		
Unmarried	63(31.5)	59(93.6)
Married	136(68)	125(91.9)
Divorced	1(0.5)	1(100)
<b>Children</b>		
Yes	100(50)	91(91.0)
No	100(50)	94(94.0)

<b>Religion</b>		
Hinduism	189(94.5)	174(92.0)
Buddhism	7(3.5)	7(100.0)
Islam	1(0.5)	1(100.0)
others	3(1.5)	3(100.0)
<b>Ethnicity</b>		
Brahmin	55(27.5)	50(90.9)
Chettri	46(23.0)	44(95.6)
Janajati	77(38.5)	70(90.9)
Madhesi	18(9.0)	17(94.4)
others	4(2.0)	4(100.0)
<b>Education</b>		
certificate	12(6.0)	11(91.6)
diploma	27(13.5)	25(92.5)
Bachelor	55(27.5)	53(96.3)
Master	99(49.5)	89(89.8)
PhD	7(3.5)	7(100.0)
<b>Work experience (years)</b>		
1-5	85(42.5)	79(92.9)
6-10	54(27)	49(90.9)
11-15	33(16.5)	31(93.9)
16-20	20(10.0)	19(95.0)
21-25	5(2.5)	4(80.0)
>25	3(1.5)	3(100.0)
<b>Category of hospital</b>		
Teaching Hospital	138(69.0)	127(92.0)
Government hospital	21(10.5)	20(95.2)
Private	32(16)	31(96.8)
Polyclinic	9(4.5)	7(77.7)
<b>Form of employment</b>		
Permanent	104(52.0)	95(91.3)
Contract	96(48.0)	90(93.7)
<b>Average working hrs</b>		
<8hrs	104(52.0)	96(92.3)
>8hrs	96(48.0)	89(92.7)
<b>Department/Unit</b>		
Medicine	105(52.5)	95(90.4)
Surgery	55(27.5)	54(98.1)
Dental	40(20.0)	36(90.0)

**Table 2:** Burnout score among the healthcare professionals.

Burnout score	Doctors n (%)	Nurses n (%)	Lab Assistants n (%)	Others n (%)	P value
Low	15(11.1)	2(3.9)	-	2(33.3)	0.07
Moderate	120(88.9)	47(92.2)	8(100.0)	4(66.6)	
High	-	2(3.9%)	-	-	
<b>Secondary traumatic stress</b>					
Low	36(26.6)	4(7.8)	1(12.5)	2(33.3)	0.05
Moderate	99(73.3)	47(92.1)	7(87.5)	4(66.6)	

**Compassion satisfaction**

Low	4(3.0)	1(1.9)	-	-	0.48
Moderate	103(76.2)	45(88.2)	8(100.0)	4(66.6)	
High	28(20.7)	5(9.8)	-	2(33.3)	

**Table 3:** Correlation between burnout, compassion satisfaction and secondary traumatic scale scores

Variables	Correlation coefficient	P value*
Burnout-Compassion satisfaction	-0.207	0.003*
Burnout-Secondary traumatic scale	0.247	0.000*
Compassion satisfaction-secondary traumatic scale	-0.016	0.823

\*Correlation significant at 0.01 level (2 tailed)

**Discussion**

This study aimed to determine the level of burnout among healthcare professionals. The level of burnout was moderate among all healthcare professionals. Burnout among the various groups of healthcare professionals were found to be 89.5% at moderate level. Similar finding was observed in a study of Vaidya among Medical doctors.<sup>11</sup> This confirms healthcare professionals in middle-income countries like Nepal have burnout at various levels. However, the result does not agree with similar study done in Ghana<sup>9</sup>, hospice center by Pavelková and Bužgová<sup>12</sup>, Assadi<sup>13</sup>. In all these studies there was low occupational burnout.

The results in this study did not confirm an association between burnout and socio-demographic characteristics of health workers. In this study, female healthcare professionals reported more burnout in comparison to males. Similar findings were found in studies done in Ghana<sup>9</sup> and by Mudallal<sup>14</sup>. The reason may be the burnout numbers among the nursing population, as they are female driven profession. Similarly, from this study it was revealed that health workers with least work experience reported increased burnout. The study infers that lesser burnout is observed with increased experience. This is justified by the fact understandable that young medical officers and staff nurses have longer working hours with frequent night shifts. However, study done in Ghana<sup>9</sup> showed those who had worked for 6-10 years were more likely to experience burnout.

The main sources of burnout identified in this study were time pressure, administrative work, dealing with patient parties. Least distressing was individual decision making. According to a study done in Ghana<sup>9</sup> and Pavelková<sup>12</sup>, the major factors were administrative work, being confronted with suffering and time pressure at work.

In the present study, healthcare professionals prevented burnout mainly by support from family members and interests/hobbies which were consistent with a similar study done in Ghana<sup>9</sup> and by Pavelková<sup>12</sup>. Families are a defense against all kinds of stress. They provide all kinds of support (moral, emotional, financial, and physical support). On the other hand, hobbies may provide self-confidence and self-esteem.

**Conclusion**

Burnout among healthcare professionals was identified at a moderate level. The main reasons of burnout experienced by health workers were time pressure, administrative work, and dealing with patient parties. Attention should be paid both by employers and employees about burnout issues as it adversely affects the employees and the productivity of an organization. To prevent the burnout issues in the healthcare institutions, proper management of deploying appropriate number of staffs and duty schedule seems to be effective.

**References**

1. Silva PV, Hewage CG, Fonseka P. Burnout: an emerging occupational health problem. *Galle Medical Journal*. 2009;14(1):52-5..
2. Freudenberger HJ. Staff burnout. *Journal of Social Issues*. Winter, 1974;30(1):159-65.
3. Ahola K, Toppinen-Tanner S, Seppänen J. Interventions to alleviate burnout symptoms and to support return to work among employees with burnout: systematic review and meta-analysis. *Burnout Research*. 2017; 4:1-11.
4. Freudenberger HJ. The staff burn-out syndrome

- in alternative institutions. *Psychotherapy: Theory, Research & Practice* 1975;12(1):73-82.
5. da Costa BRC, Pinto ICJF. Stress, Burnout and Coping in Health Professionals: A Literature Review. *J Psychol Brain Stud.* 2017;1:4.
  6. Goniewicz M, Wloszczak-Szubza A, Niemcewicz M, Witt M, Marciniak-Niemcewicz A, Jarosz MJ. Injuries caused by sharp instruments among healthcare workers—international and polish perspectives. *Annals of Agricultural and Environmental Medicine.* 2012; 19(3):523-7.
  7. Ndejjo R, Musinguzi G, Yu X, Buregyeya E, Musoke D, Wang JS et.al. Occupational health hazards among healthcare workers in Kampala, Uganda. *Journal of Environmental and Public Health.* 2015;2015:913741.
  8. Joshi SK, Shrestha S and Vaidya S. *International Journal of Occupational Safety and Health.* 2011;1,19–26.
  9. Odonkor ST, Frimpong K. Burnout among Healthcare Professionals in Ghana: A Critical Assessment. *Hindawi BioMed Research International.* 2020;2020:Article ID 1614968.8pages. DOI: <https://doi.org/10.1155/2020/1614968>
  10. Hudnall Stamm B. ProQOL Tool for Self-Assessment of PQOL. Professional Quality of Life: Compassion Satisfaction and Fatigue Version 5 (ProQOL).2009; 264-66.
  11. Vaidya A, Karki S, Dhimal M, Gyanwali P, Baral D, Pandey A et al. Professional Quality of Life among Medical Doctors Working in Kathmandu: A Descriptive Cross-sectional Study. *J Nepal Med Assoc.* 2020;22;58(231). doi:10.31729/jnma.5330
  12. Pavelková H, Bužgová, R. Burnout among healthcare workers in hospice care. *Cent Eur J Nurs Midw.* 2015,6(1):218–23. doi: 10.15452/CEJNM.2015.06.0006
  13. Assadi T, Sadeghi F, Noyani A, Mohammad SeidAbadi A, Yekesadat SM. Occupational Burnout and Its Related Factors among Iranian Nurses: A Cross-Sectional Study in Shahroud, Northeast of Iran. *Macedonian Journal of Medical sciences.* 2019;15:7(17):2902-7. DOI: <https://doi.org/10.3889/oamjms.2019.744>
  14. Mudallal RH, Othman WM, Al Hassan NF. Nurses' Burnout: The Influence of Leader Empowering Behaviors, work condition and Demographic traits. *The Journal of Healthcare Organization, Provision, and Financing.* 54:1-10. DOI: 10.1177/0046958017724944.