

ORIGINAL RESEARCH ARTICLE

COMPASSION FATIGUE, BURNOUT AND COMPASSION SATISFACTION AMONG NURSES WORKING IN A TERTIARY CARE HOSPITAL OF NEPAL DURING COVID-19 PANDEMIC

Sunita Poudyal<sup>1\*</sup>, Kalpana Sharma<sup>1</sup>, Srijana Ghimire<sup>1</sup>

<sup>1</sup>School of Nursing, Chitwan Medical College, Bharatpur, Chitwan, Nepal

Received: 14 May, 2022

Accepted: 16 Jun, 2022

Published: 30 Jun, 2022

**Key words:** Burnout; Compassion; Fatigue; Nurses; Satisfaction.

\*Correspondence to: Sunita Poudyal, School of Nursing, Chitwan Medical College, Bharatpur, Chitwan, Nepal.

Email: [poudyalsuneeta@gmail.com](mailto:poudyalsuneeta@gmail.com)

DOI: <https://doi.org/10.54530/jcmc.1070>

Citation

Poudyal S, Sharma K, Ghimire S. Compassion fatigue, burnout and compassion satisfaction among nurses working in a tertiary care hospital of Nepal during COVID-19 pandemic. Journal of Chitwan Medical College. 2022;12(40):19-22.

ABSTRACT

**Background:** Nurses frequently experience compassion fatigue and burnout, which have an impact on both their personal lives and patient care. The aim of this study was to assess compassion fatigue, burnout and compassion satisfaction among nurses working in a tertiary care hospital of Nepal during COVID-19 Pandemic.

**Methods:** A cross-sectional study was conducted among 230 nurses working in Chitwan Medical College Teaching Hospital. Simple random sampling technique was used to select the study sample. Data were collected using self-administered questionnaire with Professional Quality of Life Questionnaire (ProQOL) from 15th July 2021AD to 15th September 2021AD. Data were analyzed in SPSS version 15 for window using descriptive and inferential statistics.

**Results:** Majority of the nurses reported moderate level of compassion fatigue 177 (77.0%), burnout 176 (76.5%) and compassion satisfaction 164 (71.3%) whereas only 65 (28.3%), 8 (3.5%) and 2 (0.9%) nurses had high level of compassion satisfaction, fatigue and burnout respectively. Level of compassion fatigue and burnout were significantly associated with professional protection training. There was significant relationship found among components of ProQOL where compassion satisfaction was negatively correlated with fatigue ( $r = -.149$ ;  $p = 0.024$ ) and burnout ( $r = -.487$ ;  $p = 0.000$ ) but compassion fatigue and burnout were positively correlated with each other ( $r = 0.522$ ,  $p < 0.001$ ).

**Conclusions:** Majority of nurses working in tertiary care hospital have moderate level of compassion satisfaction, fatigue and burnout during COVID-19 crisis. Hence, effective measures need to be implemented by hospital administration to enhance the nurses' satisfaction and to reduce fatigue and burnout during pandemic period.



INTRODUCTION

Corona virus disease (COVID-19) is the infectious disease caused by the most recently discovered corona virus. It was declared as public health emergency worldwide on 30<sup>th</sup> January, 2020 and a pandemic by March, 2020.<sup>1</sup> Nurses are the frontline health workers who provide direct care to COVID-19 patients. Nurses were predisposed to physical and mental harm as a result of providing direct care to COVID-19 patients.<sup>2,3,4</sup> In addition, repeated and unprotected exposure, long duty hour,<sup>2,5</sup> job overload,<sup>3,6</sup> lack of clear guideline and perception of underpaid<sup>6</sup> all contribute to increased their health risks.

Studies showed higher rate of compassion fatigue<sup>7,8</sup> and burnout<sup>6,7</sup> among nurses during COVID-19 pandemic. The constant exposure to crisis causes mental and physical tiredness<sup>4</sup> and burnout<sup>6</sup> as well as reduces the work efficiency and quality of work and patients' disease recovery.<sup>9</sup> Moreover, work-related fatigue increases medical error,<sup>10</sup> absenteeism and turnover among nurses whereas decreases morale.<sup>11</sup>

In Nepalese context, the issue of compassion fatigue and

burnout among nurses is overlooked and there have been fewer studies<sup>12,13</sup> which address these situations among health workers. Hence, this study aimed to assess the compassion fatigue, burnout and compassion satisfaction among nurses working in a tertiary care hospital.

METHODS

A cross-sectional study was conducted among nurses working in Chitwan Medical College Teaching Hospital. It is a 750-bed tertiary care-hospital with well-equipped inpatient and outpatient departments that serves nearly a quarter of million people per year and main centre of treatment for COVID-19 patients. Population of this study were those 325 nurses (staff nurses and senior staff nurses) who were working in different department of CMC-TH. Sample size was calculated using following formula:  $n = z^2pq/e^2$ . Final sample size was 230 considering 0.59 probability (p),<sup>14</sup> 4% allowable error (e), 95% confidence level and 10% non-response error. All the nurses working in shift duty in different units of CMC-TH were listed and desired samples were selected using simple random sampling technique with lottery method. Those nurses who

were working in shift duty in different department were included in the study whereas those nurses who were in long vacation were excluded from the study.

Structured self-administered questionnaire for socio-demographic information, profession related information, professional protection training and COVID-19 related information were developed by researchers based on prior literatures. Professional Quality of Life: Compassion Satisfaction and Fatigue Version 5 (ProQOL)<sup>15</sup> was used to measure Compassion Fatigue (CF), Burnout (BO) and Compassion Satisfaction (CS). The ProQOL comprises a 30-item scale rated on 5-point Likert scale (ranging from 0 = “never” to 5 = “Very Often”). The scale is divided into three subscales; Compassion Fatigue (CF 10 items), Compassion Satisfaction (CS-10 items) and Burnout (BO-10 items). ProQOL has high reliability i.e. Cronbach alpha value was 0.81 for CF, 0.88 for CS and 0.75 for BO respectively. The cut-off values were based on the scores reported in the ProQOL Manual.<sup>15</sup> Total scores for 3 subscales were computed by aggregating the scores of 10 specific items. It was further classified into low (score ≤ 22), moderate (score 23- 41) and high (score ≥ 42). The higher score indicates higher burnout, compassion fatigue and satisfaction.

Ethical clearance was obtained from Chitwan Medical College Institutional Review Committee (CMC-IRC) (Ref: CMC-IRC/077/078-271) and data collection permission was obtained from hospital authority. Written informed consent was obtained from participants before data collection. Data were collected by researchers themselves using self-administered questionnaire with Professional Quality of Life Questionnaire (ProQOL) from 15<sup>th</sup> July 2021AD to 15<sup>th</sup> September 2021AD. Obtained data were analyzed in IBM SPSS version 15 for window using descriptive and inferential statistics. Statistical significant was set at <0.005.

## RESULTS

Out of 230 nurses, mean age was 23.6 ± 2.66 years. The minimum age was 20 years and maximum age was 40 years. All of them were female. Majorities 176 (76.5%) belonged to nuclear family, and 168 (73.0%) were living with their family members at the time of outbreak. Nearly two third 146 (63.5%) had completed proficiency certificate level of nursing (PCL) and 201 (87.4%) were working in a staff nurse position. Majority 198 (86.1%) of nurses were participated in the direct care of COVID-19 patients. However, half 118 (51.3%) of them reported that they did not get any professional protection training. Less than half 94 (40.9%) of the nurses were infected with COVID-19 and 65 (28.3%) nurses had family history of infection. Only 14 (6.1%) nurses reported severe degree of fear about COVID-19 (Table 1).

**Table 1: Socio-demographic, work and covid-19 infection related characteristics of nurses n=230**

Variables	Frequency (%)
Mean age (SD) : 23.6 ± 2.66 years	
Marital status	

Single	179 (77.8)
Married	51 (22.2)
<b>Type of family</b>	
Nuclear	176 (76.5)
Joint	54 (23.5)
<b>Living with family at the time of outbreak</b>	
Yes	168 (73.0)
No	62 (27.0)
<b>Professional Qualification</b>	
PCL	146 (63.5)
Bachelor (BNS + BSc.)	84 (36.5)
<b>Professional Designation</b>	
Staff Nurse	201 (87.4)
Senior Staff Nurse	29 (12.6)
<b>Directly participated in the care of COVID patients</b>	
Yes	198 (86.1)
No	32 (13.9)
<b>Professional protection training</b>	
Yes	112 (48.7)
No	118 (51.3)
<b>Infected with COVID-19</b>	
Yes	94 (40.9)
No	136 (59.1)
<b>Family members infected with COVID-19</b>	
Yes	65 (28.3)
No	165 (71.7)
<b>Degree of fear about COVID-19</b>	
None	21 (9.1)
Mild	109 (47.4)
Moderate	86 (37.4)
Severe	14 (6.1)

All the nurses were working in morning, evening and night shifts. The frequency of night shifts per months in average was 7.85 ± 0.99 with minimum 4 and maximum 10 nights per month. The average length of break in a shift was 28.97 ± 7.82 minutes with minimum 15 minutes to maximum 60 minutes. The mean professional experience among nurses was 2.08 ± 1.63 years where minimum was 3 months to maximum 10 years.

**Table 2: Level of compassion fatigue, burnout and compassion satisfaction among nurses n=230**

Variables	Low No. (%)	Moderate No. (%)	High No. (%)
Compassion fatigue	45(19.5)	177 (77.0)	8 (3.5)
Burnout	52 (22.6)	176 (76.5)	2 (0.9)
Compassion satisfaction	1 (0.4)	164 (71.3)	65(28.3)

Regarding ProQOL, majority of the nurses had moderate levels of compassion fatigue (77.0%; n = 177), burnout (76.5%; n=176) and compassion satisfaction (71.3%; n = 164) (Table 2).

**Table 3: Association between level of compassion fatigue, burnout and compassion satisfaction and selected variables of nurses n=230**

Variables	Compassion Fatigue			Burnout			Compassion Satisfaction		
	Low No. (%)	Medium to high No. (%)	p value	Low No. (%)	Medium to high No. (%)	p value	Low No. (%)	Medium to high No. (%)	p value
<b>Professional Qualification</b>									
PCL	30 (20.5)	116 (79.5)	0.620	32 (21.9)	114 (78.1)	0.741	1 (0.7)	145 (99.3)	0.447
Bachelor	15 (17.9)	69 (82.1)		20 (23.8)	64 (76.2)		0 (100.0)		
<b>Professional Designation</b>									
Staff nurse	37 (18.4)	164 (81.6)	0.244	43 (21.4)	158 (78.6)	0.248	1 (0.5)	200 (99.5)	
Senior Staff Nurse	8 (27.6)	21 (72.4)		9 (31.0)	20 (69.0)		0 (100.0)		
<b>Directly participated in care of COVID patients</b>									
Yes	42 (21.2)	156 (78.8)	0.117	43 (21.7)	155 (78.3)	0.421	1 (0.5)	197 (99.5)	0.687
No	3 (9.4)	29 (90.6)		9 (28.1)	23 (71.9)		0 (100.0)		
<b>Received professional protection training</b>									
Yes	28 (25.0)	84 (75.0)	<b>0.043</b>	34 (30.4)	78 (69.6)	<b>0.006</b>	1 (0.9)	111 (99.1)	0.304
No	17 (14.4)	101 (85.6)		18 (15.3)	110 (84.7)		0 (100)		

Table 3 reveals that level of compassion fatigue and burnout is statistically associated with professional protection training. However, none of other variables were significantly associated with the level of burnout, compassion fatigue and satisfaction (Table 3).

**Table 4: Correlation between burnout, compassion fatigue and satisfaction score among nurses**

Variables	r	p value
Compassion Satisfaction vs. Compassion Fatigue	-.149*	.024
Burnout vs. Compassion Fatigue	.522**	<.001
Compassion Satisfaction vs. Burnout	-.487**	<.001

*r=Spearman Correlation Coefficient  
Significant at the 0.05 Level*

There was a positive relationship between burnout and compassion fatigue ( $r=0.522$ ,  $p<0.001$ ) whereas compassion satisfaction was negatively correlated with fatigue ( $r=-0.149$ ,  $p=0.024$ ) and burnout ( $r=-0.487$ ,  $p<0.001$ ). This means that nurses with high levels of satisfaction have low level of compassion fatigue and burnout (Table 4).

## DISCUSSION

The findings of this study revealed that nurses have suffered moderate to high levels of compassion fatigue (77.0% - 3.5%) and burnout (76.5% - 0.9%) during the COVID-19 health crisis. These findings are almost similar with the study conducted in Nepal, which reported moderate to high level of burnout among nurses (92.2%- 3.9%) and secondary traumatic stress

(92.1%).<sup>12</sup> Likewise, first-line nurses in China reported moderate level of fatigue while fighting against COVID-19 pandemic.<sup>9</sup> However, study conducted in Northern Uganda<sup>8</sup> revealed 49.11% of nurses had high level of compassion fatigue and study of Malaysia reported high level of burnout among 39.4% of nurses.<sup>5</sup> This could be due to the fact that nurses spend more time with patients, are exposed to others' suffering on a regular basis, work in high-stress workplaces<sup>5</sup> and nurses witnessing their patients in pain and dying during COVID-19.<sup>4</sup> However, other studies reported that nurses experienced some level of compassion fatigue and burnout regardless of the pandemic.<sup>14,16</sup> Therefore, interventions that aid in the prevention of these issues among nurses are required.

Our results revealed that most of the nurses had moderate to high level of compassion satisfaction (71.3% moderate and 28.3% high) despite of having moderate to high level of burnout (76.5%–0.9%) and compassion fatigue (77.0%-3.5%). Consistent findings were reported in the study conducted in Nepal, where 88.2% of nurses reported moderate level of compassion satisfaction.<sup>12</sup> However, Franza et al. (2020) showed 45.83% of nurse had moderate to high level of compassion satisfaction in the time of covid-19 outbreak.<sup>7</sup> Likewise, Borges (2019) found high level of compassion satisfaction among 51% of the nurses in Portugal.<sup>14</sup> This discrepancy in compassion satisfaction might be due to differences in availability of allowances, facilities and working hospital environments across the countries.

We found significant relationship among all three components of ProQoL where compassion satisfaction had negative relationship with fatigue and burnout. However, positive

relationship was found between burnout and compassion fatigue ( $r = .522$ ;  $p = 0.000$ ) which is consistent with the findings of studies done in Nepal<sup>12</sup> and Spain.<sup>17</sup> Similar result is reported in meta-analysis in which compassion fatigue and burnout were positively correlated ( $r = 0.59$ ) whereas compassion satisfaction was negatively correlated with burnout ( $r = -0.446$ ) and compassion fatigue ( $r = -0.226$ ).<sup>18</sup> Nurses' job satisfaction suffers as a result of burnout; particularly emotional exhaustion.<sup>19</sup> Burnout and satisfaction can both be affected by uncertainty about the future.<sup>20</sup>

This study has some limitations. First, it is a cross-sectional study which could not explore the causal relationship among the variables. Second, it is conducted in only one teaching hospital, which limits the generalizability of the findings. Additionally, ProQOL version 5 (2009), general tool was used, which may not fully reflect the changing environment of the COVID-19 pandemic. Therefore, future research should focus on strategies for improving compassion satisfaction as well as measures to reduce compassion fatigue and burnout among

nurses.

## CONCLUSION

Nurses are at risk of developing compassion fatigue and burnout as a result of their role in providing direct care to COVID-19 patients. Level of compassion fatigue and burnout were significantly associated with professional protection training of nurses. Effective measures need to be implemented to the nurses to enhance their satisfaction and to reduce fatigue and burnout and its associated consequences.

## ACKNOWLEDGEMENT

We would like to thank all the nurses who participated in the study as well as those who helped in the study both directly and indirectly.

**CONFLICT OF INTEREST:** None

**FINANCIAL DISCLOSURE:** None

## REFERENCES:

- World Health Organization. Health Topics. Coronavirus disease (COVID-19) pandemic; 2019. Available at <https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/novel-coronavirus-2019-ncov>. [Accessed June 10 2021].
- Shaukat N, Ali DM, Razzak J. Physical and mental health impacts of COVID-19 on healthcare workers: a scoping review. *Int J Emerg Med*. 2020 Dec; 13(1):1-8. [DOI]
- Lai J, Ma S, Wang Y, Cai Z, Hu J, Wei N, Wu J, Du H, Chen T, Li R, Tan H. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA network open*. 2020 Mar 2; 3(3):e203976. [DOI]
- Wendekier C, Kegerreis K. Nurse compassion fatigue: An unintended consequence of the COVID-19 pandemic. *Journal of the catholic health association of the United States*. 2020. Available at [https://www.chausa.org/docs/default-source/health-progress/nurse-compassion-fatigue.pdf?sfvrsn=d9aef1f2\\_0](https://www.chausa.org/docs/default-source/health-progress/nurse-compassion-fatigue.pdf?sfvrsn=d9aef1f2_0).
- Peters E. Compassion fatigue in nursing: A concept analysis. *In Nursing forum*. 2018 Oct;53(4): 466-80. [DOI]
- Zakaria MI, Remeli R, Ahmad Shahamir MF, Md Yusuf MH, Azizah Ariffin MA, Noor Azhar AM. Assessment of burnout among emergency medicine healthcare workers in a teaching hospital in Malaysia during COVID-19 pandemic. *Hong Kong Journal of Emergency Medicine*. 2021 Feb 15:1024907921989499. [DOI]
- Franza F, Basta R, Pellegrino F, Solomita B, Fasano V. The role of fatigue of compassion, burnout and hopelessness in healthcare: Experience in the time of COVID-19 outbreak. *Psychiatria Danubina*. 2020 Sep 1; 32(Suppl 1):10-4. [PMID]
- Kabunga A, Anyayo LG, Okalo P, Apili B, Nalwoga V, Udho S. Prevalence and contextual factors associated with compassion fatigue among nurses in northern Uganda. *PloS one*. 2021 Sep 27; 16(9):e0257833. [DOI]
- Zhan YX, Zhao SY, Yuan J, Liu H, Liu YF, Gui LL, Zheng H, Zhou YM, Qiu LH, Chen JH, Yu JH. Prevalence and influencing factors on fatigue of first-line nurses combating with COVID-19 in China: a descriptive cross-sectional study. *Current medical science*. 2020 Aug; 40(4):625-35. [DOI]
- Kahrman İ, Öztürk H. Evaluating medical errors made by nurses during their diagnosis, treatment and care practices. *Journal of clinical nursing*. 2016 Oct; 25(19-20):2884-94. [DOI]
- Alharbi J, Jackson D, Usher K. The potential for COVID-19 to contribute to compassion fatigue in critical care nurses. *Journal of Clinical Nursing*. 2020 Aug; 29(15-16):2762-2764. [DOI]
- Shrestha MV, Manadhar N, Joshi SK. Burnout among healthcare professionals in Nepal: An analytical study. *International Journal of Occupational Safety and Health*. 2021 Jun 13; 11(2):89-94. [DOI]
- Singh R, Subedi M, Sunar CB, Pant S, Singh B, Shah B, Mahato S. Association of social stigma of COVID-19 with work satisfaction, burnout and fatigue among health care workers in Nepal. *Global Psychiatry*. 2021 Oct 1; 4(2):180-90. [DOI]
- Borges EM, Fonseca CI, Baptista PC, Queirós CM, Baldonado-Mosteiro M, Mosteiro-Diaz MP. Compassion fatigue among nurses working on an adult emergency and urgent care unit. *Revista latino-americana de enfermagem*. 2019 Oct 7; 27. [DOI]
- Stamm BH. Professional quality of life measure: Compassion, satisfaction, and fatigue version 5 (ProQOL). Available at: <https://socialwork.buffalo.edu/content/dam/socialwork/home/self-care-kit/compassion-satisfaction-and-fatigue-stamm-2009.pdf>.
- Hunsaker S, Chen HC, Maughan D, Heaston S. Factors that influence the development of compassion fatigue, burnout, and compassion satisfaction in emergency department nurses. *Journal of nursing scholarship*. 2015 Mar; 47(2):186-94. [DOI]
- Ruiz-Fernández MD, Ramos-Pichardo JD, Ibáñez-Masero O, Cabrera-Troya J, Carmona-Rega MI, Ortega-Galán ÁM. Compassion fatigue, burnout, compassion satisfaction and perceived stress in healthcare professionals during the COVID-19 health crisis in Spain. *Journal of clinical nursing*. 2020 Nov; 29(21-22):4321-30. [DOI]
- Zhang YY, Zhang C, Han XR, Li W, Wang YL. Determinants of compassion satisfaction, compassion fatigue and burn out in nursing: A correlative meta-analysis. *Medicine*. 2018 Jun; 97(26). [DOI]
- Piko BF. Burnout, role conflict, job satisfaction and psychosocial health among Hungarian health care staff: A questionnaire survey. *International journal of nursing studies*. 2006 Mar 1;43(3):311-8. [DOI]
- Cetrano G, Tedeschi F, Rabbi L, Gosetti G, Lora A, Lamonaca D, Manthorpe J, Amadeo F. How are compassion fatigue, burnout, and compassion satisfaction affected by quality of working life? Findings from a survey of mental health staff in Italy. *BMC health services research*. 2017 Dec; 17(1):1-1. [DOI]