BJHS
Birat Journal of Health Sciences

ISSN:

2542-2758 (Print) 2542-2804 (Online)

ARTICLE INFO:

Received Date: 14/07/2023
Acceptance Date: 10/03/2024
Published Date: 16/04/2024

KEYWORDS:

Coping Strategy, COVID Referral Hospital, Emotional Response, Nurses

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Access the article online

DOI: https://doi.org/10.62065/bjhs 538

CITATION:

Subedi S, Mandal PK, Khanal A, Rai M, Shakaya A. Birat J. Emotional Response and Coping Strategies of Nurses Working in COVID Referral Hospitals of Morang District Health Sci. 2024;9(1):77-85.

Emotional Response and Coping Strategies of Nurses Working in COVID Referral Hospitals of Morang District

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ABSTRACT

Introduction: The COVID-19 pandemic significantly impacted the wellness and health of individuals, particularly healthcare staff. Effective coping mechanisms have been identified as crucial in managing emotional responses

Objectives: This study aimed to assess the emotional response and coping strategies among nurses working in COVID referral hospitals in Morang district.

Methodology: A cross-sectional online questionnaire survey was conducted from June to October 2021, employing total population enumeration technique with 350 nurses. Emotional responses were assessed using the PANAS-GEN scale, and coping strategies were evaluated using a modified Brief Cope Inventory (BCI). Statistical analyses included Mann-Whitney U-test, Kruskal-Wallis test, Pearson linear correlation, and multiple linear regressions.

Results: The majority of participants (84.6%) were aged 21-30 years, and 97.1% were female. Emotional-focused coping was slightly higher among nurses aged over 31 and those with two or more children (p=0.019). A significant relationship was observed between coping strategies and emotional response. Both positive and negative emotional responses correlated with problem-focused coping ($p < 0.001$ and 0.017). Problem-focused coping significantly influenced positive ($p < 0.001$, CI 17.044-27.254) and negative responses (p=0.000, CI 16.467-26.104). Additionally, emotion-focused coping was a significant factor in negative response (p=0.001, CI 0.062-0.246).

Conclusion: Emotional coping was slightly higher among nurses over thirty-one years old and those with two or more children. Positive and negative emotional responses were associated with problem-focused coping, indicating its influence on both types of responses. Moreover, emotion-focused coping was linked to negative responses.

Keywords: Coping Strategy, COVID Referral Hospital, Emotional Response, Nurses

INTRODUCTION

Nepal experienced its first wave in 2020, marked by a four-month cross-country lockdown. A more lethal second wave emerged in April 2021, driven by the delta variation of COVID-19, significantly impacting the country's fragile healthcare system and resulting in widespread damage.[1, 2] The symptoms of the virus vary from none to severe, with the severity particularly affecting individuals with comorbidities.[3] The World Health Organization (WHO) has documented more than 772 million verified cases and close to seven million deaths worldwide due to COVID-19, as of December 17, 2023.[4, 5] Subsequently, in Nepal with over 9 million cases and approximately 12,000 reported deaths as of March 1, 2023.[6] The concepts of the illness and preventive measures, such as social distancing, affect both physical and mental health in the general population. The outbreak led to diverse mental reactions, including acute stress, unease, post-traumatic stress disorder, anxiety, and depression.[3]

As COVID-19 cases rise in Nepal, the country has implemented various forms of lockdown to control the pandemic. While encouraging social distancing to reduce

interpersonal interactions and the risk of new infections, these measures have had effects on the overall well-being of the population.[7] The increasing number of cases, together with a shortage of personal protective equipment and unclear treatment protocols, adds psychological pressure on healthcare workers.[8] Healthcare workers, particularly nurses, are on the frontline, facing occupational risks and emotional burdens. Stressors among healthcare teams arise from separation, changes in home life, and the unique challenges of patient care. Nurses, in particular, spend significant time with confirmed or suspected patients, leading to heightened stress.[9, 10, 11, 12, 13] A study done in China among health workers found that depression symptoms were present in 23.6%, anxiety in 27.4%, and stress in 16.3%.[14] Likewise, other study done in India found that a considerable percentage of nurses overall suffered depression (41.3%), anxiety (49.1%), and stress (29.5%).[15] In a similar vein, according to a study conducted in Nepal, 91.7% of nurses experienced moderate stress, and 5.3% expressed high stress.[16]

The coping strategies employed by individuals during the pandemic play a crucial role in managing emotional reactions. Effective use of coping mechanisms, whether problem-focused or emotion-focused, can help people navigate stress and mitigate negative emotions.[17] While emotion-focused coping is typically defined as striving to regulate uncomfortable emotion, problem-focused coping entails attempts to change the disturbed person's surroundings.[18, 19] A study found that 92% of nurses utilized moderate coping techniques, while only 3.3% employed high coping methods to lessen their perceived stress. However, the emotional responses and coping strategies of nurses in the context of the COVID-19 outbreak in Nepal remain limited.[16]

Amidst the challenges faced by healthcare workers, including social stigma and increased caseloads, understanding the emotional responses and coping strategies of nurses becomes paramount. Therefore, the researcher is interested in this study to find out emotional response and coping strategies of nurses working in hospital during COVID-19 pandemic.

METHODOLOGY

Research Design/population /setting: A quantitative cross-sectional online questionnaire survey was conducted to measure emotional responses and coping strategies among nurses at COVID referral hospitals in the Morang area. The study included hospitals in Biratnagar and Birat Medical College Teaching Hospital in Morang district, Koshi province, eastern Nepal. Morang district had five COVID hospitals: Koshi Hospital, Koshi COVID Hospital, Neuro Cardio and Multi-specialty Hospital, Nobel Medical College Teaching Hospital, and Birat Medical College. These hospitals provide general health services and critical care, including intensive care unit treatment with ventilator support for COVID patients referred from Morang district and nearby areas. The study focused on nurses employed in these referral hospitals, utilizing a total population enumeration technique.

Sample size: Sample size was calculated using the formula Z^2pq/d^2, where p=62.2% [20] (taken from a previous study), q=100-p, and α=5% and allowable error d=5%. This yielded a total sample size of 397, with an additional 10% allowance for non-response. Since there were 400 nurses working in the COVID wards of the four referral hospitals, questionnaires were sent to all of them. However, only 350 nurses completed the questionnaire and were included in the final analysis.

Research tool: The tool comprised three parts. Part I included demographic data, such as sex, age, work experience, qualifications, marital status, number of children, family support, residence (rural or urban), ethnicity, training, and employment status. Part II, Emotional Responses, utilized the PANAS-GEN scale, a self-report measure of affect consisting of 20 mood descriptors representing positive and negative affect on a 5-point Likert scale ranging from 1 (very slightly or not at all) to 5 (Extremely).[21] Part III included the Brief Cope Inventory (BCI), consisting of 28 coping methods. Based on Lazarus and Folkman's theory of stress, coping, and adaptation, coping comprises two domains: problem-focused coping and emotion-focused coping. The problem-focused domain includes five coping techniques with two items each, while the emotion-focused domain comprises nine coping strategies, each with two items. [3, 21]

Validity and reliability: Thorough literature review and expert consultation ensured the validity of the study. The PANAS-Gen and Brief COPE tools were selected for their appropriateness and availability. Internal consistency for positive affect ranged from 0.86 to 0.90 and for negative affect from 0.84 to 0.87 in the PANAS. Test-retest reliability for positive affect was reported at 0.79 and for negative affect at 0.81.[21] The Brief Cope Inventory demonstrated an overall internal consistency of 0.79, with problem-focused and emotion-focused domains showing Cronbach's alpha values of 0.72 and 0.73, respectively. To minimize the Hawthorne effect, the Principal Investigator remained anonymous to the participating nurses. Data collection occurred via mailed questionnaires to ensure respondent privacy. Internal validity threats were addressed through the adoption of the PANAS-GEN and Brief COPE tools. Attrition bias remains a potential concern despite the tools' validity.[22]

Data collection procedure: Ethical approval was obtained from Nepal Health Research Council (Ref no 231). Permission was secured from hospitals, and participant information was obtained from relevant authorities. A Google Forms questionnaire was developed, and written consent was obtained from participants. The survey link was distributed via various social media platforms, followed by a telephone call to provide information. Gentle reminders and follow-ups were conducted until data collection was complete. Participants were informed of the study's objectives and their voluntary participation was ensured. They had the right to withdraw at any time. The questionnaire took approximately 30 to 35 minutes to complete.

Data analysis procedure: Data was organized for editing and coding. SPSS version 16.0 was utilized for processing.

Descriptive analysis included obtaining frequency, mean, and standard deviation. The final emotional response score was derived by summing 10 positive and 10 negative items, each on a scale of 10 to 50. Higher positive scores indicated more positive effects, while lower negative scores suggested less negative effects. Mean scores and standard deviations were calculated for coping strategies. Normality tests (Shapiro-Wilk) were conducted for problem-focused coping, emotion-focused coping, positive response, and negative response. As the data were not normally distributed (p-values < 0.05), Mann-Whitney U and Kruskal-Wallis tests were employed to examine differences in emotional response and coping mechanisms. Spearman correlation assessed the relationship between emotional response and coping strategies. Multiple linear regression determined associations between emotional response and coping strategies. Statistical significance was set at $p < 0.05$.

RESULTS

The study showed that the majority (84.6%) of the respondents were between the ages of 21 and 30 years. Regarding sex of the respondent, most (97.1%) of the respondents was female. Likewise, half (54%) of the respondents were Brahmin/Chettri, 17.7 %and 16 % participants were Terai/Madhesi and Janajati respectively. Half (54%) of the respondents had completed PCL in nursing, 30% completed B. Sc. nursing and least (2%) of the respondents had completed Masters in nursing. Concerning the marital status, two third of the respondents were unmarried. Among the married population, 72% respondent had no children, 16% had one child, 11% had two children and only 0.9% respondent had three children. With regards to type of family, two third of the respondent were from nuclear family. Relating to the family support, almost 94% of the respondent had family support. In employment status, three fourth (73.1%) of the respondents were working in contract basis. Almost Fifty-nine percent respondent had 1-5 years of work experience and more than half (56.7%) of respondent had received training related to COVID-19.

Table 1: Frequency and mean distribution of emotional response of participants

Statements	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely	mean±SD
Positive response						
Interested	35(10.0)	58(16.6)	91(26.0)	70(20.0)	96(27.4)	3.38±1.31
Excited	56(16.0)	69(19.7)	106(30.3)	58(16.6)	61(17.4)	2.33±1.11
Strong	40(11.40	50(14.30	85(24.3)	103(29.4)	72(20.6)	3±1.30
Enthusiastic	36(10.3)	73(20.9)	92(26.3)	96(27.4)	53(15.1)	2.24±1.17
Proud	40(11.4)	45(12.9)	82(23.4)	72(20.60	111931.7)	3.33±1.26
Alert	70(20.0)	45(12.9)	72(20.6)	80(22.9)	83(23.7)	1.70±1.05
Inspired	29(8.3)	37(10.6)	92(26.3)	87(24.9)	105(30.0)	2.13±1.16
Determined	36(10.3)	58(16.6)	91(26.0)	90(25.7)	75(21.4)	1.77±1.09
Attentive	36(10.3)	54(15.4)	82(23.4)	92(26.3)	86(24.6)	3.16±1.21
Active	29(8.3)	20(5.7)	75(21.4)	88(25.1)	138(39.4)	3.48±1.35
Negative response						
Distressed	97(27.7)	109(31.1)	90(25.7)	40(11.4)	14(4.0)	2.21±1.23
Upset	115(32.9)	108(30.9)	74(21.1)	33(9.4)	20(5.7)	3.17±1.44
Guilty	210(60.0)	76(21.7)	34(9.7)	19(5.4)	11(3.1)	1.70±1.11
Scared	127(36.3)	118(33.7)	55(15.7)	31(8.9)	19(5.4)	3.58±1.24
Hostile	203(58.0)	68(19.4)	47(13.4)	20(5.7)	12(3.4)	2.36±1.18
Irritable	132(37.7)	95(27.1)	58(16.6)	46(13.1)	19(5.4)	3.31±1.26
Ashamed	226(64.6)	49(14.0)	40(11.4)	23(6.6)	12(3.4)	3.39±1.28
Nervous	95(27.1)	119(34.0)	73(20.9)	40(11.4)	23(6.6)	2.41±1.35
Jittery	119(34.0)	87(24.9)	62(17.7)	44(12.60	38(10.9)	3.82±1.24
Afraid	137(39.1)	89(25.4)	54(15.4)	44(12.6)	26(7.4)	2.24±1.29

Table 1 denotes the emotional response of the respondents where in positive response, active had greater mean score (3.48±1.35) and alert had lower mean score (1.70±1.05) than others. Likewise, in negative response jittery had higher mean score (3.82±1.24) and guilty had lower mean score (1.70±1.11) than others

Table 2: Frequency and mean distribution of coping strategies of the participants

Variables	don't do this at all	do this a little bit	do this a medium amount	do this a lot	Mean±SD
Active coping					
I have been concentrating my efforts on doing something about the situation I am in	25(7.1)	64(18.3)	125(35.7)	136(38.9)	3.06±0.92
I have been taking action to try to make the situation better.	17(4.9)	56(16.0)	106(30.3)	171(48.9)	3.23±0.82
Planning					
I have been trying to come up with a strategy about what to do.	17(4.9)	63(18.0)	166(47.4)	104(29.7)	3.02±0.82
I have been thinking hard about what steps to take	22(6.3)	68(19.4)	126(36.0)	134(38.3)	3.07±0.91
Positive reframing					
I have been trying to see it in a different light, to make it seem more positive	17(4.9)	75(21.4)	125(35.7)	133(38.0)	3.07±0.89
I have been looking for something good in what is happening	19(5.4)	54(15.4)	124(35.4)	153(43.7)	3.17±0.88
Acceptance					
I am accepting the reality of the fact that it has happened	20(5.7)	79(22.6)	92(26.3)	159(45.4)	3.11±0.94
I have been learning to live with it	25(7.1)	56(16.0)	115(32.9)	154(44.0)	3.14±0.93
Humor					
I have been making jokes about it	214(61.1)	78(22.3)	33(9.4)	25(7.1)	1.63±0.92
I have been making fun of the situation	222(63.4)	56(16.0)	34(9.7)	38910.9)	1.68±1.03
Religion					
I have been trying to find comfort in my religion or spiritual beliefs	49(14.0)	105(30.0)	97(27.7)	99(28.3)	2.71±1.03
I have been praying or meditating	44(12.6)	90(25.7)	117(33.4)	99(28.3)	2.78±1
Using emotional support					
I have been getting emotional support from others	26(7.4)	113(32.3)	117(33.4)	94(26.9)	2.80±0.92
I have been getting comfort and understanding from someone	26(7.4)	102(29.1)	122(34.9)	100(28.6)	2.85±0.92
Using instrumental support					
I have been trying to get advice or help from other people about what to do	37(10.6)	108(30.9)	118(33.7)	87(24.9)	2.73±0.95
I have been getting help and advice from other people	29(8.3)	106(30.3)	136(38.9)	79(22.6)	2.76±0.89
Self-distraction					
I have been turning to work or other activities to take my mind off things.	36(10.3)	132(37.7)	115(32.9)	67(19.1)	2.61±0.91
I have been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	57(16.3)	125(35.7)	105930.0)	63(18.0)	2.50±0.96
Denial					
I have been saying to myself "this isn't real"	173(49.4)	96(27.4)	71(20.3)	10(2.9)	1.77±0.87
I have been refusing to believe that it has happened	156(44.6)	119(34.4)	65(18.2)	10(2.9)	1.80±0.84
Venting					
I've been saying things to let my unpleasant feelings escape	112(32.0)	142(40.6)	64(18.3)	32(9.1)	2.05±0.93
I've been expressing my negative feelings	149(42.6)	97(27.7)	67(19.1)	37(10.6)	1.98±1.02
Substance use					
I've been using alcohol or other drugs to make myself feel better	282(80.6)	31(8.9)	23(6.6)	14(4.0)	1.34±0.77
I've been using alcohol or other drugs to help me get through it	281(80.3)	32(9.1)	24(6.9)	13(3.7)	1.34±0.76
Behavioral disengagement					

I've been giving up trying to deal with it	190(54.3)	80(22.9)	50(14.3)	30(8.6)	1.77±0.99
I've been giving up the attempt to cope	191(54.6)	64(18.3)	50(14.3)	45(12.9)	1.85±1.08
Self-blame					
I've been criticizing myself	235(67.1)	63(18.0)	27(7.70	25(7.1)	1.55±0.91
I've been blaming myself for things that happened	247(70.6)	51(14.6)	29(8.3)	23(6.6)	1.51±0.90

Table 2 demonstrates coping strategies of the respondents where respondents had greater mean (3.23±0.82) score in active coping (I have been taking action to try to make the situation better) and lower mean score (1.34±0.77) in substance use.

Table 3: **Association between Emotional Responses with Demographic Variables**

Variables	N	Positive response		Negative response	
		Mean Rank	P	Mean Rank	P
Age					
21-30	296	178.31	0.23	178.44	0.20
>31	54	160.11		159.36	
Sex					
Male	10	160.70	0.63	176.92	0.12
Female	340	175.94		127.30	
Ethnicity					
Brahmin/Chetri	189	163.31	0.10	174.48	0.81
Tarai-madeshi	62	192.99		167.81	
Janajati	58	187.46		185.26	
Others	41	188.32		178.01	
Education					
ANM	48	187.48	0.22	184.91	0.74
PCL	189	166.87		175.49	
Bachelor and above	113	184.84		171.51	
Marital status					
Married	129	169.50	0.39	176.13	0.92
Unmarried	221	179.00		175.13	
Type of family					
Nuclear	133	175.15	0.92	183.16	0.04
Joint	117	176.19		160.25	
No of children					
None	252	155.67	0.62	153.99	0.83
One	56	149.25		156.79	
Two and more	42				
Family support					
Yes	329	176.66	0.39	174.65	0.53
No	21	157.33		188.88	
Place of residence					
Rural	90	180.88	0.55	170.26	0.56
Urban	260	173.64		177.31	
Employment status					
Permanent	94	161.83	0.12	178.49	0.73
Contract	256	180.52		174.40	
Work experience					
Less than 1	68	170.04	0.79	180.57	0.28
1-5	207	178.46		179.74	
More than 5	75	172.29		159.21	

P=value, Mann-Whitney & Kruskal wallis test

Table no 3 reflects that there was no significant difference in relation to emotional response and demographic variables such as age, sex, ethnicity, education, marital status, type of family, no of children, family support residence, and employment status.

Table 4: Association between coping strategies with Demographic Variables

Variables	N	Problem-focused		Emotion-focused	
		Mean Rank	P	Mean Rank	P
Age					
21-30	296	177.52	0.38	170.08	0.01*
>31	54	164.44		205.19	
Sex					
Male	10	175.92	0.65	188.52	0.07
Female	340	161.30		167.90	
Ethnicity					
Brahmin/Chhetri	189	174.07	0.48	174.26	0.72
TaraiMadeshi	62	183.98		188.13	
Janajati	58	161.23		170.97	
Others	41	189.44		168.54	
Education					
ANM	48	157.00	0.25	192.07	0.40
PCL	189	174.24		170.33	
Bachelor and above	113	185.46		177.11	
Marital status					0.06
Married	129	165.18	0.14	188.52	
Unmarried	221	181.52		167.90	
Type of family					
Nuclear	133	174.64	0.82	171.20	0.26
Joint	117	177.21		184.06	
No of children					
None	252	176.38	0.95	165.71	0.00*
One	56	171.65		186.69	
Two and more	42	175.38		219.35	
Family support					
Yes	329	155.69	0.35	146.86	0.18
No	21	176.76		177.33	
Place of residence					
Rural	90	176.59	0.90	180.03	0.62
Urban	260	175.12		173.93	
Employment status					
Permanent	94	162.40	0.14	175.98	0.954
Contract	256	180.31		175.32	
Work experience					
Less than 1	68	179.65	0.65	189.82	0.27##
1-5	207	177.49		168.57	
More than 5	75	166.23		181.65	

*P= p-value, * statistically significant (<0.05), Mann-Whitney & Kruskal wallis test*

Table 4 represents the association of coping strategies with demographic variables where there was no significant difference in the use of problem-focused coping in an age whereas emotional-focused coping (p=0.019) was slightly higher in the age group more than 31. Nurses with children two or more used more emotion-focused coping (p=0.004) than the nurse with no children and one, whereas there was no difference in the use of problem-focused coping. Likewise, there was no difference in their use of problem-focused coping and emotion-focused coping in ethnicity, education, employment status and work experience.

Table 5: Correlation of emotional response and coping strategies

	Positive response		Negative response		Problem-focused coping		Emotion-focused coping	
	R	p-value	R	p-value	R	p-value	R	p-value
Positive response	1							
Negative response	-0.06	0.20	1					
Problem-focused coping	0.24	0.00**	-0.15	0.00**	1			
Emotion-focused coping	0.05	0.337	0.02	0.12	0.34	0.00**	1	

*** Statistically significant (p<0.001),* Spearman correlation analysis

Table 5 depicts that there was correlation between coping strategies and emotional response as, emotional responses both positive and negative were correlated with problem-focused coping, (r=0.24, p-values=0.000 and r=0.15, p=0.003). Whereas, no correlation between emotional response (positive and negative) with emotion-focused coping (r=0.05 and 0.08). Similarly, problem-focused coping was moderately correlated with emotion-focused coping (r=0.34 p-value0.000).

Table 6: Multiple Linear Regressions of Emotional Response and Coping Strategies

	Positive Response				Negative response			
	B	T	P	CI	B	T	P	CI
Constant		8.53	0.00	17.04-27.25		8.68	0.00	16.46-26.10
Problem-focused coping	0.344	6.168	0.00	0.53-1.04	0.20	3.56	0.00	0.67-0.19
Emotion-focused coping	0.06	1.09	0.27	0.04-0.15	0.18	3.28	0.00	0.06-0.24

B=Beta coefficient, t =t-test, P = P-value, CI= Confidence Interval

Table 6 shows there was a relation between coping strategies and emotional response. Problem-focused coping was influential to positive response (p-value <0.001, CI 17.044-27.254) as well as a negative response (p-value-0.000, CI 16.467-26.104). Similarly, emotion-focused coping was an influencing factor for negative response (p-value 0.001, 0.062-0.246).

DISCUSSION

Covid-19 had created mental distress and anxiety in individual and community people. Emotional response varies from individual to individual whereas for the frontline workers. It was hardest thing to deal with. They faced different problem while balancing the personal and professional life. When facing pandemic, the frontline workers experience variety of anxiety, fear, sadness, anger and frustration. The changing demand of the health care system, working with limited human resources and fear of getting infected while caring the patient causes extreme psychological distress to nurses working in Covid-19 referral centers. Frontline workers' emotional and mental health can be negatively impacted by long-term exposure to high stress in a variety of ways.[23]

This study found no significant association between perceived stress and any of the socio-demographic variables, including age, sex, ethnicity, education, marital status, family structure, number of children, and residence for family support. This finding is supported by a study that found no association between perceived stress and any of the socio-demographic variables.[3] Whereas it contradicts to the findings of the study showed compared to participants from urban areas, participants from rural areas reported higher levels of sadness (p 0.0001, Cohen's d = 0.285), while those from urban expressed greater levels of anxiety (p =0.009), and anger p=0.002, Cohen's d = 0.226).[24] Another study conducted in Nepal showed that there was association of stress in nurses with marital status, duty schedule and monthly income.[16] Likewise, another study showed age (less than 30 years) and sex (females) were linked to greater levels of perceived stress.[25]

The findings of the study showed that there was no significant difference in the use of problem-focused coping strategy by age. Although, emotional-focused coping (p=0.019) was somewhat more prevalent in the age group over 31. This finding is coherence with the study conducted among nurses working at Covid and Non-covid hospital. During pandemic, older nurses used more coping strategy than younger nurses.[20] The present study showed that nurses with two or more children used more emotion-focused coping (p=0.004) than the nurses with no children and one child. Whereas there was no difference in the use of problem-focused coping, which is supported by the study done on nurses with no children, they used avoidance strategies more frequently than emotional or problem focused coping.[20] This study showed that there is no difference in how people use problem-focused coping versus emotion-focused coping based on their ethnicity, level of education, work experience, and place of residence, which is supported by the findings indicating that there was no significant difference in the use of emotion-focused coping and problem-focused coping. However, there is a difference in anxiety level based on the spatial distance of COVID-19 cases.[24] Problem-focused coping and emotion-focused coping have no significant difference in

employment status. Regardless of employment status, nurses use both problem-focused coping and emotion-focused coping. The ineffective use of coping mechanisms among nurses can result in burnout, emotional disturbances, and psychological disorders. The health system should consider these factors and pay attention to the nurses working in COVID hospitals during the pandemic.

This study showed that emotional response both positive and negative was correlated with problem-focused coping (p-value < 0.001 and 0.017) which was consistent with the findings of the study.[26] Likewise, the findings were supported by the study, which showed that, in addition to sadness, emotional response and coping strategies were correlated with each other (p < 0.001). The findings also cohere with a study that showed a significant correlation between coping strategies and emotional intelligence, whereas there was no correlation between emotional responses (positive and negative) and emotion-focused coping. Similarly, there was a correlation between problem-focused coping and emotion-focused coping (p-value<0.001).[27]

The relationship between emotional response and coping strategies was determined using multiple linear correlations, which suggests that there was a relationship between coping and emotional response. Problem-focused coping was influential to positive response (p-value <0.001, CI 17.044-27.254) as well as a negative response (p-value-0.000, CI16.467-26.104). Similarly, emotion-focused coping was an influencing factor for negative response (p-value 0.001, 0.062-0.246). According to a study, nurses display more intense emotional reactions and are more willing to employ problem-focused coping strategies than nursing students. Among nurses, there may be a loop of "more coping-more panic." In order to maintain a safe environment while combating COVID-19, hospitals should focus on taking the following steps: providing nurses with more psychological support, enhancing coping mechanisms, setting up adequate healthcare protective equipment, and developing a wide range of interventions to stop the spread of infectious diseases.[24]

CONCLUSION

This study concludes that emotional coping is slightly higher in age groups more than thirty-one years and nurses with two or more children. The nurse's emotional responses both positive and negative are correlated with problem-focused coping. This reflects that Problem-focused coping was influential in positive responses as well as negative responses. Similarly, emotion-focused coping was an influencing factor for the negative response

RECOMMENDATION

It is recommended that counseling services with grievances handling should be provided to nurses during the time of pandemic. Furthermore, information regarding coping strategies should be disseminated through training and education to overcome the emotional stress at the time of pandemic/difficult.

LIMITATIONS OF THE STUDY: Only nurses involved directly in the care of COVID infected patients were not the representative of all the nurses working with different patients in non-COVID wards. Stress and coping strategy were equally applicable for them as new cases identified daily among the non-COVID cases.

The online questionnaire for data collection may include selection bias of study participants. The pre-validated complex scale may not be understandable to all level of participants.

More research with large-scale cases is needed involving nurses working in COVID and non-COVID units to compare the result.

ACKNOWLEDGEMENTS: The authors acknowledge Nepal Health Research Council for their ethical review and approval. The researchers thank the participants for their assistance in sharing information as well as the relevant study institution.

CONFLICTS OF INTEREST: The authors claim to have no Competing interests.

FINANCIAL DISCLOSURE: There is no financial support for this study.

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