Perceived stress, burnout and compassion fatigue among frontline health workers during COVID-19 pandemic

Priyanka Yadav¹, Soma Sahu^{2*}

¹M. Phil Scholar, ²Assistant Professor, Department of Clinical Psychology, Post Graduate Institute of Behavioural and Medical Sciences, Raipur, India

ABSTRACT

Background: Among all groups, frontline health workers are at high risk of work-related stress, burnout and secondary traumatic stress during the COVID-19 Pandemic. Objectives: To assess the level of perceived stress, burnout, compassion fatigue, to see the association of these variables and to predict the value of the perceived stress and burnout for compassion fatigue among frontline health workers during the COVID-19 pandemic. Materials and Method: The study was a web-based crosssectional study on 79 participants who were working as frontline health workers in any organization/hospital during the COVID-19 pandemic. Participants were included in the study using the snowball sampling method. To assess perceived stress, compassion fatigue and burnout, Cohen's Perceived Stress Scale and Compassion Fatigue/Satisfaction self-test were used. Results: About 50.6% had moderate stress, 65.8% of total participants had an extremely low risk of burnout and 51.9% had an extremely high risk of compassion fatigue. The result showed a positive correlation between perceived stress and compassion fatigue (0.46), burnout and compassion fatigue (0.78), perceived stress and burnout (0.55) at p<.01. Considering the finding of this study it is concluded that major steps need to be taken to improve the mental health of the frontline health care workers during the pandemic. To improve the current scenario of health care workers in regards to mental health, several steps need to be taken e. g. policy-making could be a good step, psychological intervention can be given to those health care workers who need it.

Keywords: COVID-19, perceived stress, burnout, compassion fatigue, frontline health worker

INTRODUCTION

Covid-19 has a major impact on the mental health of the general population.^[1] Globally, implementation of preventive and control measures; and cultivating health coping and resilience are challenging factors; modified lifestyle (lockdown, curfew, self-isolation, social distancing and quarantine) were leading to severe psychological problems.^[2] The World Health Organization declared the outbreak a Public Health Emergency of International Concern on 30 January 2020, and a pandemic on 11 March 2020.^[3]

Access the Article Online		
DOI:	Quick Response Code	
10.29120/IJPSW.2021.v13.i1.459		
Website: www.pswjournal.org		

Psychosocial impact of COVID-19

Some groups are more vulnerable to psychological problems due to repetitive exposure with the patients either Covid-19 positive or suspected to be positive. Frontline health workers are comprised of nurses, midwives, community health workers, doctors, pharmacists, and more who provide direct care to communities.^[4]

Frontline Health care workers (HCWs) are exposed to a fast and unpredictable situation that requires more human resources and materials than usual, however, the lack of means on account to this situation entails an

Address for Correspondence:

Dr. Soma Sahu

Assistant Professor, Department of Clinical Psychology, Post Graduate Institute of Behavioural and Medical Sciences, Raipur - 492001, India Email: drsomasahu@gmail.com

How to Cite the Article: Yadav P, Sahu S. Perceived stress, burnout and compassion fatigue among frontline health workers during covid-19 pandemic. Indian J Psychiatr Soc Work 2022;13(1):32-8.

increased probability of suffering different consequences, including burnout syndrome, to which, generally, these professionals are already vulnerable.^[5] Frontline HCWs had a significantly increased risk of COVID-19 infection.^[6]

It is recommended that health care facilities should implement strategies to reduce the prevalence of mental health problems among healthcare providers and eventually it will improve their performance in the provision of safe and high-quality care for patients.^[7] The prevalence of anxiety was found 23.2%, depression 22.8%, insomnia 38.9% among healthcare workers during pandemic covid-19.^[8] In another systematic review, the prevalence of depression, anxiety, stress, were found 24.3%, 25.8%, 45% respectively.^[9] Working conditions affect the psychological outcome in health care workers (HCWs) during a crisis.^[10] The COVID-19 pandemic requires a dedicated and highly demanding response from critical care nurses. To support these nurses, the broader response to COVID-19 must include multiple stakeholders including, but not limited senior nursing staff, government to. policymakers, technology designers, hospital administrations, as well as members of the broader community. Only through а collaborative effort can any risks associated with compassion fatigue (CF) and burnout in the critical care nurse workforce be identified and mitigated.^[11]Burnout syndrome is a serious problem for healthcare systems and affects almost all profiles of healthcare workers. Although burnout is an evidence-based public health problem, there is still no systematic approach to prevention. Prevention activities to reduce stress and the incidence of burnout should be provided for health care workers.^[12] According to research conducted by Happell et al.,^[13] health care nurses were more vulnerable to occupational stress. In another study, the health care workers who provided services to Covid-19 positive patients were found to have higher stress level.^[14] In the study, the prevalence of workplace stress was found to be 48.6%.^[15] Isolation and Quarantine have a significant effect during the COVID-19 pandemic on stress.^[16]

The above findings provide a substantial contribution to the consolidation of evidence concerning the negative impact of the pandemic on the mental health of healthcare workers (HCWs). These results have established an association that the COVID-19 pandemic causes larger negative psychological symptoms in frontline healthcare workers, such as severe anxiety and poor sleep quality. Preventive measures to minimize anxiety levels and maintain sleep quality, addressing this issue nationally and globally, are essential to support the healthcare workers who are sacrificing their mental health for the future of our nations.^[17]

COVID-19 pandemic has put health systems under immense pressure and stretched beyond their capacity. Frontline workers have been experiencing high work volume, personal risk and societal pressure to meet extraordinary demands for healthcare. Furthermore, COVID-19 has been associated with increased mortality in doctors and health care workers.^[18] There has been rising in violence against health care workers. In many countries, lots of attacks on health care have continuously been reported.^[19] All above factors contribute to enhancing negative emotion and secondary trauma and psychological distress among frontline HCWs. Since unavoidable roles and risks related to the job of the frontline HCWs are at high risk to work-related stress, burnout and secondary traumatic stress. Front line health care workers have a significant role to play to deal with the Therefore, the identification, pandemic. and treatment of burnout. prevention compassion fatigue and perceived stress are of public interest. There is a scarcity of study in this regard and there is an immense need for it. So, the current study has been planned with the objectives: To assess the level of perceived stress, burnout, compassion fatigue, to see the association of these variables and to predict the value of the perceived stress and burnout for compassion fatigue among frontline health workers during COVID-19 pandemic.

MARTIALS AND METHOD

The present study was a web-based crosssectional study using the snowball sampling method on 79 participants who were working as frontline health workers in any organization/hospital during the COVID-19 pandemic. The link of both English and Hindi versions of Google forms was distributed to social media Facebook and WhatsApp group of health care professionals and they were asked to share the link with other known frontline health workers. Inclusion criteria included health workers either male or female; aged between 21-60 years; who have been working as frontline health workers during the Covid-19 pandemic. Exclusion Criteria included those participants, who had been diagnosed with any major mental disorder or physical illness. Tool used were:

Socio-demographic Datasheet: A self-made, semi-structured socio-demographic data sheet was specifically designed for the present study. It contains socio-demographic details like age, gender, education qualification, marital status, parental status, domicile, organization sector, total work experience etc.

Perceived Stress Scale: The Perceived stress scale (PSS) is developed by Cohen et al.^[20] which contains 10 items. Each item was rated on a 5-point scale ranging from never, almost never, sometimes, fairly often, and very often. Individuals' scores on PSS can range from 27-40 with a higher score indicating higher perceived stress, scores ranging from 14-26 would be considered moderate stress and scores ranging from 0-13 would come under low stress. The scale had an acceptable level of internal consistency, as determined by a Cronbach's alpha of 0.731. The Spearman-Brown split-half reliability coefficient was also adequate (0.71). The translated Hindi version of PSS was used.^[21]

Compassion Satisfaction and Fatigue Self-Test: The Compassion satisfaction and fatigue scale is developed by Stamm et al.^[22] It consists of three subscales - compassion fatigue, burnout, compassion satisfaction. It contains 66 items, each has 5 responses: 0 = Never, 1 = Rarely, 2 =A few times, 3 = Somewhat often, 4 = Often, 5 =Verv often. Pilot work on this revised version of the CFST provided good evidence of reliability with internal consistency alphas of the three subscales as follows: compassion satisfaction (.87), burnout (.90), and compassion fatigue (.87).^[23] The scale was in English which were translated into Hindi by two translators who were expert in both languages and as well as in the subject. To ensure the accuracy of the forward and backward translation was carried out.

Procedure: The ethical approval of the study was obtained from PGIBAMS Institutional Ethical and Research Committee. The survey was created in Hindi and English languages. On the first page of the Google Form, the consent of participants was taken and they were ensured about the confidentiality of their responses. Total 92 responses were collected through social media. After considering the inclusion and exclusion criteria, a total of 79 participants' responses were included for data analysis. This study was conducted at the end of the second wave of the pandemic in India in the period from beginning the month of May to the end of June 2021.

RESULTS

Participants

The mean age of the participants (n = 79) was 33.17 and the standard deviation was 8.88.

Variable		f	%	
Gender		-		
	Female	42	53.2	
	Male	37	46.8	
Age rang	ge			
	21-30years	41	51.9	
	31-40years	27	34.2	
	41-50years	5	6.3	
	51-60years	6	7.6	
Marital S	Status			
	Divorced	1	1.3	
	Married	46	58.2	
	Unmarried	32	40.5	
Parental	Status			
	No	41	51.9	
	Yes	38	48.1	
Educatio	Educational Qualification			
	Diploma	8	10.1	
	Graduation degree	36	45.6	
	Intermediate	5	6.3	
	Master or higher	30	38	
Organiza	Organization Sector			
	Government		74.7	
	Private	18	22.8	
	Semi-government	2	2.5	
Domicil	e			
	Rural	28	35.4	
	Semi-urban	3	3.8	
	Urban	48	60.8	
Experiences as a frontline HCW				
	1-3 months	9	11.4	
	3-6 months	7	8.9	
	6-12 months	7	8.9	
	more than 12 months	56	70.9	

Table 1: Socio-demographic Details

Perceived Stress, Burnout, Compassion Fatigue among Frontline HCWs

Table 2: Perceived Stress, Burnout,		
Compassion Fatigue		

Level	Frequency	Percent	
Perceived Stress			
Low stress	33	41.8	
Moderate stress	40	50.6	
High stress	6	7.6	
Burnout			
Extremely low risk	52	65.8	
Moderate risk	18	22.8	
High risk	9	11.4	
Compassion Fatigue			
Extremely low risk	15	19	
Low risk	8	10.1	
Moderate risk	12	15.2	
High risk	3	3.8	
Extremely high risk	41	51.9	

Table 2 shows that more than half of the participants' have moderate to severe levels of stress. Less the half of participants moderate to high risk of burnout. Whereas more than half had extremely high-risk compassion fatigue.

Correlations

Pearson correlation 2-tailed was computed which shows that perceived stress has a significant positive correlation (r = 0.46) with compassion fatigue and burnout (r = 0.55) at .01 level. There was a significant strong positive correlation between burnout and compassion fatigue (r = 0.78) at the .01 level.

Multiple Regression Analysis

Table8a:RegressionAnalysisforCompassion Fatigue - Model Summary

R	R Square	Adjusted R Square
0.777ª	0.60	0.59

 Table 8b: Perceived stress and burnout predicting Compassion fatigue

Variable	В	95%CI	β	t	Р
(Constant)	6.49	[-1.05,14.03]		1.71	0.09
Perceived stress	.0.12	[-0.34,0.59]	0.45	0.54	0.59
Burnout	1.04	[0.80,1.28]	0.75	8.651	0.00**

Note. R^2 adjusted = 0.59, CI = confidence interval of B, ** significant (p>.01) Tables 8a and 8b shows that the results of multiple regression analysis to predict compassion fatigue for perceives stress burnout. Burnout was found significant at p = 0.00 and explained 60 % of the variability of compassion fatigue. The adjusted R^2 was 0.59 for a 95% confidence interval (CI) of B. whereas perceives stress (p = 0.59) was not significant means it failed to predict compassion fatigue.

DISCUSSION

The current study aimed to assess the level of perceived stress, burnout, and compassion fatigue, to see the association of these variables and to predict the value of the perceived stress and burnout for compassion fatigue among frontline health workers during the COVID-19 pandemic.

The present study depicted that more than half of the frontline health workers have moderate to severe level of stress. This finding is somewhat consistent with various study findings.^[14, 24,25] A study conducted in India showed that during COVID-19 the HCWs were working with enormous stress and sleep difficulty during the early phase of the pandemic. Different categories of HCWs were affected differently by different factors of perceived stress. While doctors scored higher on stress-related anxiety, nurses scored higher on stress-related irritability, and both nurses and non-clinical staff members scored high on stress-related hopelessness.^[26] However, the current study could not assess it. Younger and less experienced health care professionals are less vulnerable to stress.^[27] Isolation and Quarantine have a significant effect during the stress.^[16] COVID-19 pandemic on Psychological stress may lead to physical pain^[28,29] and can lead to many diseases.^[30]

The present study reported a low risk of burnout among frontline health workers as the majority of the frontline health workers had an extremely low risk of burnout, only one third had a moderate to high risk of burnout. It means somehow, the majority of the frontline health workers were able to deal with their stress. In a study the levels of the three burnout dimensions (emotional exhaustion, cynicism, and professional efficacy) were high. The acute stress symptoms and psychosomatic symptoms significantly predicted the emotional exhaustion and occupation cynicism dimensions of burnout. The most significant predictors of emotional exhaustion could be role overload, responsibility, role insufficiency and self-care; wherein for cynicism dimension of burnout, role insufficiency, role boundary have greater part; social support and rational/cognitive coping play a major role in professional efficacy dimension of burnout.^[31]

Furthermore, the finding of the present study suggested a high risk of compassion fatigue as near about three fourth of the frontline workers had moderate to extremely high risk of compassion fatigue. These findings were consistent with another study conducted by Ruiz-Fernández^[32] which revealed being married, working in primary care, in urban areas, and working a morning/evening /night shift were predictors of compassion fatigue, whereas burnout was affected only by work shift.

There are many explanations for the above findings, compassion has been a major component among health care professionals, but repeated exposure to traumatic experiences may lead to compassion fatigue.^[33] The study carried out before the outbreak of the COVID-19 pandemic, the moderate to a high level of burnout being reported by a large majority of the emergency nurses, while almost the same proportion had shown moderate to a high level of compassion fatigue.^[34]

Compassion fatigue is primarily related to jobrelated stress. Research reported that nurses were been in constantly having occupational stress and distress as compared to other groups.^[35] During the COVID-19 pandemic, frontline health workers were more susceptible to experiencing stress, burnout and compassion fatigue,^[36] This study was conducted at the end of the second wave of coronavirus in India at that time mortality rates were high. The health care professionals were consistently under the pressure of work and had a high risk of getting infected.^[18] Medical professionals face a lot of stressors like work overload, excessive working hours, sleep deprivation, repeated exposure to emotionally charged situations, dealing with difficult patients, conflicts with other staff. In addition to this, work-related stress, irregular social and family life is the main component of the ongoing burnout process in these professionals.^[37] Working hours, job

satisfaction, clarity about work, amount of work exceeding stipulated time, loss of interest at work, not being rewarded and valued for their work are a few of the factors that are found to be associated with stress levels.^[38]

The present study reported a significant moderate positive correlation between perceived stress and burnout. It means that those frontline health workers who were more stressed or had a higher level of stress had more risk of burnout. Stress was also positively correlated with compassion fatigue which is quite obvious. Further, a significantly high positive correlation between burnout and compassion fatigue was found which indicates those frontline health workers who had a high risk of burnout were also at higher risk of compassion fatigue. These findings were consistent with another study conducted by Amin et al.^[39] in which perceived stress was found positively correlated with burnout and compassion fatigue.

In the present study, multiple regression analysis revealed that burnout is a predictor of compassion fatigue while perceived stress failed to predict compassion fatigue. This finding was consistent with another study conducted by Amin et al.^[39] To improve the current scenario of health care workers in regards to mental health, several major steps need to be taken. Considering these concerns during policy-making could be a good step. Psychological intervention can be given to health care workers.^[40] It's time to initiate such issues over discussion and take the necessary step to prevent stress, compassion fatigue among frontline health care workers for their mental health and to improve their work efficiency.

Limitation: The sample size was small, representations of different occupational services were not equal, the study was carried out through online mode that also cross-sectionally which was missed by some other frontline health workers participants who were not active in social media or may not feel the topic is pertinent to them and they may not participate.

CONCLUSION

The present study revealed a significant level of perceived stress, burnout and compassion fatigue among frontline HCWs who have been working during the COVID-19 pandemic. This must be dealt with caution since there are people who are supposed to contribute in dealing with others with stress, burnout and compassion fatigue. It's time to initiate these issues over discussion and take the necessary step to prevent stress, burnout and compassion fatigue of frontline HCWs not only to improve their mental health and work efficiency but also to ensure the quality health care delivery by them to the larger population the need.

Conflict of Interest: None

Source of Funding: None

Ethical Approval: Taken

REFERENCES

- 1. Wang C, Pan R, Wan X, Tan Y, Xu L, McIntyre RS, et al. A longitudinal study on the mental health of general population during the COVID-19 epidemic in China. Brain Behav Immun 2020;87:40-8.
- Mukhtar S. Psychological health during the coronavirus disease 2019 pandemic outbreak. Int J Soc Psychiatry 2020;66(5):512-6.
- World Health Organization: Coronavirus disease (COVID-19) outbreak. www.who.int/ emergencies/ diseases/novel-coronavirus-2019
- 4. Intra Health International. (2021). Frontline Health Workers. www.frontlinehealth workers.org/frontline-health-workers
- Rodríguez BO, Sánchez TL. The Psychosocial Impact of COVID-19 on health care workers. International braz j urol 2020;46:195-200.
- Nguyen LH, Drew DA, Graham MS, Joshi AD, Guo CG, Ma W, et al. Risk of COVID-19 among front-line health-care workers and the general community: a prospective cohort study. Lancet Public Health 2020;5(9):e475-83.
- Al Mutair A, Al Mutairi A, Ambani Z, Shamsan A, AlMahmoud S, Alhumaid S. The impact of COVID-19 pandemic on the level of depression among health care workers: cross-sectional study. PeerJ. 2021;9:e11469.
- Pappa S, Ntella V, Giannakas T, Giannakoulis VG, Papoutsi E, Katsaounou P. Prevalence of depression, anxiety, and insomnia among healthcare workers during the COVID-19 pandemic: A systematic review and metaanalysis. Brain Behav Immun 2020;88:901-7.
- Salari N, Khazaie H, Hosseinian-Far A, Khaledi-Paveh B, Kazeminia M, Mohammadi M, Shohaimi S, Daneshkhah A, Eskandari S. The prevalence of stress, anxiety and depression within front-line healthcare workers caring for COVID-19 patients: a systematic review and meta-regression. Hum Resour Health 2020;18(1):1-4.

- 10. Marjanovic Z, Greenglass ER, Coffey S. The relevance of psychosocial variables and working conditions in predicting nurses' coping strategies during the SARS crisis: an online questionnaire survey. Int J Nurs Stud 2007;44(6):991-8.
- 11. Alharbi J, Jackson D, Usher K. The potential for COVID-19 to contribute to compassion fatigue in critical care nurses. J Clin Nurs 2020. 10.1111/jocn.15314.
- 12. Friganović A, Selič P, Ilić B. Stress and burnout syndrome and their associations with coping and job satisfaction in critical care nurses: a literature review. Psychiatria Danubina. 2019;31(suppl. 1):21-31.
- Happell B, Dwyer T, Reid-Searl K, Burke KJ, Caperchione CM, Gaskin CJ. Nurses and stress: recognizing causes and seeking solutions. J Nurs Manag 2013;21(4):638-47.
- Zare S, Esmaeili R, Kazemi R, Naseri S, Panahi D. Occupational stress assessment of health care workers (HCWs) facing COVID-19 patients in Kerman province hospitals in Iran. Heliyon. 2021;7(5):e07035.
- 15. Gebeyehu S, Zeleke B. Workplace stress and associated factors among healthcare professionals working in public health care facilities in Bahir Dar City, Northwest Ethiopia, 2017. BMC research notes 2019;12(1):1-5.
- 16. Nkire N, Mrklas K, Hrabok M, Gusnowski A, Vuong W, Surood S, et al. COVID-19 pandemic: demographic predictors of self-isolation or self-quarantine and impact of isolation and quarantine on perceived stress, anxiety, and depression. Frontiers in Psychiatry 2021;12:553468.
- Meo SA, Alkhalifah JM, Alshammari NF, Alnufaie WS. Comparison of generalized anxiety and sleep disturbance among frontline and second-line healthcare workers during the COVID-19 pandemic. Int J Environ Res Public Health 2021;18(11):5727.
- Iyengar KP, Ish P, Upadhyaya GK, Malhotra N, Vaishya R, Jain VK. COVID-19 and mortality in doctors. Diabetes Metab Syndr 2020;14(6):1743-6.
- 19. WHO. Attacks on health care in the context of COVID-19. 2020. Available at: https://www.who.int/news-room/featurestories/detail/attacks-on-health-care-in-thecontext-of-covid-19
- Cohen S, Kamarck T, Mermelstein R. A global measure of perceived stress. J Health Soc Behav 1983;24(4):385-96.

- 21. Pangtey R, Basu S, Meena GS, Banerjee B. Perceived stress and its epidemiological and behavioral correlates in an Urban Area of Delhi, India: A community-based crosssectional study. Indian J Psychol Med 2020;42(1):80-6.
- 22. Stamm BH, Figley CR. Compassion satisfaction and fatigue test. Retrieved September. 1996;23:2001.
- 23. Stamm BH. Measuring compassion satisfaction as well as fatigue: Developmental history of the compassion satisfaction and fatigue test. In Treating compassion fatigue. Routledge 2002. pp. 107-119.
- 24. Aly HM, Nemr NA, Kishk RM, bakr Elsaid NM. Stress, anxiety and depression among healthcare workers facing COVID-19 pandemic in Egypt: a cross-sectional onlinebased study. BMJ open 2021;11(4):e045281.
- 25. Mrklas K, Shalaby R, Hrabok M, Gusnowski A, Vuong W, Surood S, Urichuk L, Li D, Li XM, Greenshaw AJ, Agyapong VI. Prevalence of perceived stress, anxiety, depression, and obsessive-compulsive symptoms in health care workers and other workers in Alberta during the COVID-19 pandemic: cross-sectional survey. JMIR Mental Health. 2020;7(9):e22408.
- 26. Chatterjee SS, Chakrabarty M, Banerjee D, Grover S, Chatterjee SS, Dan U. Stress, sleep and psychological impact in healthcare workers during the early phase of COVID-19 in India: A factor analysis. Frontiers in Psychology. 2021:473.
- Ko W, Kiser-Larson N. Stress levels of nurses in oncology outpatient units. Clin J Oncol Nurs 2016;20(2):158-64.
- Vinstrup J, Jakobsen MD, Andersen LL. Perceived stress and low-back pain among healthcare workers: a multi-center prospective cohort study. Frontiers in public health 2020;8:297. doi: 10.3389/fpubh.2020.00297
- 29. Yaribeygi H, Panahi Y, Sahraei H, Johnston TP, Sahebkar A. The impact of stress on body function: A review. EXCLI journal. 2017;16:1057.
- McEwen BS. Protective and damaging effects of stress mediators: central role of the brain. Dialogues in clinical neuroscience. 2022;8(4):367-81.
- Wu S, Zhu W, Wang Z, Wang M, Lan Y. Relationship between burnout and occupational stress among nurses in China. Journal of advanced nursing. 2007;59(3):233-9.

- Ruiz-Fernández MD, Pérez-García E, Ortega-Galán ÁM. Quality of life in nursing professionals: Burnout, fatigue, and compassion satisfaction. Int J Environ Res Public Health 2020;7(4):1253. doi: 10.3390/ijerph17041253
- Peters E. Compassion fatigue in nursing: A concept analysis. In Nursing forum 2018;53(4):466-80.
- 34. Hooper C, Craig J, Janvrin DR, Wetsel MA, Reimels E. Compassion satisfaction, burnout, and compassion fatigue among emergency nurses compared with nurses in other selected inpatient specialties. J Emerg Nurs 2010;36(5):420-7.
- 35. Maben J, Bridges J. Covid-19: Supporting nurses' psychological and mental health. Journal of clinical nursing. 2020:29(15-16): 2742-50.
- 36. Khasne RW, Dhakulkar BS, Mahajan HC, Kulkarni AP. Burnout among healthcare workers during COVID-19 pandemic in India: results of a questionnaire-based survey. Indian J Crit Care Med 2020;24(8):664-71.
- Kakunje A. Stress among health care professionals-The need for resiliency. Online J Health Allied Scs 10(1):1–2.
- Sagar S, Ravish KS, Ranganath TS, Ahmed MT, Shanmugapriya D. Professional stress levels among healthcare workers of Nelamangala: A cross sectional study. Int J Community Med Public Health 2017;4(12):4685-91.
- 39. Amin AA, Vankar JR, Nimbalkar SM, Phatak AG. Perceived stress and professional quality of life in neonatal intensive care unit nurses in Gujarat, India. Indian J Pediatr 2015;82(11):1001-5.
- 40. Auserón A, MR EV, Goñi F, Rubio G, Pascual P, de Galdeano SD. Evaluation of the effectiveness of a mindfulness and selfcompassion program to reduce stress and prevent burnout in primary care health professionals. Atencion primaria. 2017;50(3):141-50.

Submitted on: 25-03-2022

Revised on: 01-06-2022

Accepted on: 07-07-2022

Published on: 12-07-2022