Original Article

Coping strategies and emotional responses adopted by health care workers during COVID-19 pandemic-braving the storm

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Abstract

Background and Aims: Health care workers (HCWs) are caught in the middle of the COVID-19 pandemic storm and are exposed to a large degree of physical and emotional stress. This study was planned to describe the stressors, stress levels, emotional responses, and coping strategies adopted by HCWs amidst this pandemic.

Material and Methods: This cross-sectional, web-based survey was conducted after ethics approval, using a structured performa incorporating standardized stress (PSS-10 C), emotional responses (PANAS-10), and coping strategy (Brief COPE) scales. The snowball sampling technique was used to conduct the study and collect data. Data were analyzed using SPSS 26 version (SPSS Inc., Chicago, IL, USA) statistical software. A *P* value of <0.05 was considered significant.

Results: Out of 402 participants (65% doctors and 35% nurses), 87% perceived moderate stress levels, and nearly half of the participants were interns, residents, and medical officers. Infection to self or family members (77.1%), survival of sick patients (75.6%), aggression by patients and relatives (70.3%), and long duty hours (67%) were some of the major stressors as reported by HCWs. The most common positive emotion felt was being alert (19.17 ± 5.57) and negative emotion perceived was being upset (15.6 ± 6.06). Many participants adopted emotion and problem-focused coping strategies such as planning and strategization (68%) and positive reframing (67.6%), whereas dysfunctional coping strategies such as venting and denial were adopted less commonly.

Conclusion: Moderate stress levels perceived by HCWs are a cause for concern. Emotional responses of HCWs to stress vary; however, appropriate coping strategies including emotional and problem-focused coping strategies are the need of the hour to tackle pandemic-related stress.

Keywords: Coping strategies, COVID-19, emotional responses, health care workers (HCWs), pandemic, stress levels, stressors

Introduction

SARS-CoV-2 virus infection, commonly called the Novel Coronavirus disease 2019 (COVID-19) pandemic, has spread all over the world like a storm, and many countries are now already facing the third wave with no end of this pandemic in sight.[1,2] The COVID-19 pandemic brought with it a myriad of problems, including high morbidity and mortality in patients, inadequate resources, and physical and emotional stress in HCWs.[1] Till May 16, 2022, there were nearly 523 million confirmed cases of COVID-19 worldwide and 43 million cases in India.[2] India currently has the second-highest number of confirmed cases in the world and the

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third-highest number of COVID-19 deaths after the United States and Brazil.[2] Most health care workers (HCWs) all over the world have been working in COVID-19 wards and ICUs for about 2 years now, and this has exposed them to a large degree of physical and mental stress due to the handling of sick patients all the time as well as being worried about the risk of infection to self and family members.[3,4] HCWs have been experiencing moderate to severe depression, stress, and anxiety symptoms during the COVID-19 pandemic.[3-7] A high prevalence of anxiety, depression, stress, and insomnia was observed in HCWs, and the factors responsible were perceived to be increased workload, lack of social support, and fear of transmission of disease.[7] Only a few studies have discussed the emotional responses and coping strategies of HCWs during the COVID-19 pandemic, which needs to be addressed as the pandemic is still raging in full force and HCWs are going to continue working in these challenging situations.[8,9] Thus, in this study, we have described the stressors, stress levels, emotional responses, and coping strategies adopted by study participants. This could help us in understanding the response to stress among HCWs and guide us in formulating strategies to reduce the risk of developing long-term anxiety, depression, stress disorders, and sometimes suicidal tendencies in these HCWs, as we are heading toward another year of raging pandemic (2022).

Material and Methods

This cross-sectional, observational study was conducted during August–October 2021 as a web-based national survey after approval from the institutional ethics committee. HCWs (doctors and nurses) who understood the English language, had access to the internet or WhatsApp, gave voluntary consent, and who had been working in COVID-19 care areas in various health facilities across India were included.

A Google performa was created based on standard guidelines to collect responses about stress levels, emotional responses, and coping strategies among HCWs. Participants suffering from psychiatric illness or on any type of mood-altering medication were excluded to minimize the confounders in this study. The questionnaire was initially sent to 10 doctors and nurses each to check for language, clarity, and comprehension, and desired changes were made accordingly by the investigators. These participants were not included in the main study. The snowball sampling technique was used to conduct the study and collect data. The online survey form was initially sent to immediate contacts and acquaintances of the investigators, and the participants were then requested to send this questionnaire to other HCWs they were in contact with so that we could have data representing HCWs from different regions of the country. On clicking the link, the participants were auto-directed to the message regarding the purpose of the study, confidentiality statement, and consent form.

The performa was structured to collect the demographic information of participants, including age, gender, education, profession, and type of hospital. Standardized validated questionnaires were used to collect information regarding common stressors, stress levels based on the 10-item Perceived Stress (PSS-10-C) scale modified for the COVID-19 situation, emotional responses based on the 10-item Positive and Negative affect schedule scale (PANAS-10-C Scale), and Brief Coping Orientation to Problems Experienced (Brief COPE) scale to measure the coping strategies adopted by them. **PSS-10-C Scale-** The Kessler's Perceived Stress Scale (PSS) was modified to COVID-19 Pandemic-Related Stress Scale (PSS-10-C) with the inclusion of relevant questions.[10] Responses range from "never," "almost never," "occasionally," "almost always," and "always." Items 1, 2, 3, 6, 9, and 10 are scored directly from 0 to 4, and items 4, 5, 7, and 8 are scored in reverse from 4 to 0. Scores range from 0 to 40, with higher scores indicating higher perceived stress.

The Positive and Negative Affect Schedule (PANAS) is a modified 10-item self-report questionnaire where each item is rated on a 5-point scale, with 1 being "not at all" and 5 being "very much." Total scores range from 10 to 50, with lower scores representing lower and higher scores representing higher levels of positive/negative effects.[11,12]

Brief COPE Questionnaire is a validated, standardized self-report questionnaire developed to assess a broad range of coping responses.[13-15] Though composite scores have less relevance, many studies use aggregates, and higher scores indicate increased utilization of that specific coping strategy. Responses are categorized by respondents as "I haven't been doing this at all/doing a little bit/doing a medium amount/doing it a lot."

Components of this scale included:

Emotion-focused coping strategies (EFCS) include emotional support, positive reframing, humor, religion, and acceptance.

Problem-focused coping strategies (PFCS) include active coping, planning, and instrumental support.

Dysfunctional coping strategies (Dys CS) include self-distraction, substance use, behavioral disengagement, denial, venting, and self-blame.

Data collection and Statistical analysis: The completed performa were collected and responses analyzed. Data were described in terms of range, mean ± standard deviation (SD), frequencies (number of cases), and relative frequencies (percentages) as appropriate. Comparison of quantitative variables between the study groups was done using analysis of variance (ANOVA). Pearson correlation was used to measure the strength and direction of the linear relationship between two variables. A probability value (p-value) of less than 0.05 was considered statistically significant. All statistical calculations were done using Statistical Package for the Social Science (SPSS) 26 version (SPSS Inc., Chicago, IL, USA) statistical program for Microsoft Windows.

Results

Out of 402 HCW participants, 263 (65.4%) were doctors and 139 (34.6%) were nurses. Nearly 71% (285) were female, and 29% (117) were male HCWs. More than half participants (51.5%) belonged to the young age group (<30 years), as shown in Figure 1. Among HCWs, 235 (58.5%) were postgraduates, 134 (33.3%) were graduates, and only (33) 8.2% were undergraduates. Nearly 45% of participants (n = 180) had less than 5 years of experience, followed by149 (37%) with >10 years and 73 (18.2%) HCWs having 5–10 years of experience. Participants included nurses (34.6%), junior residents (30.1%), consultants (19.4%), interns and post-MBBS medical officers [Figure 2]. The majority of HCWs (72%) were involved in the care of all types of COVID-19 patients (mild, moderate, and severe) and many had been managing COVID-19 patients for more than 1 year (56%) [Figure 3a and b].

Stressors

Responses of HCWs to some common stressors were noted on a 5-point Likert scale in the categories, namely strongly disagree (0), disagree (1), neutral (2), agree (3), and strongly agree (4), and categories 3 and 4 were clubbed for interpretation. Stress about infecting self or family members (76.6%), survival of sick patients (75.6%), worrying family members (71.4%), aggression by patients and relatives (70.4%), and long duty hours (67.4%) were rated highly as the major causes of stress by HCWs [Table 1]. Staff shortage, increased number of severe COVID-19 patients in the second wave, loss of academics and training in parent specialty, difficulty in wearing mask/PPE kits for long hours, less salary, uncertainty about future, lack of empathy for HCWs by the general population, and people not wearing masks or taking precautions were some of the other stressors perceived by HCWs in answer to the open-ended question.

Stress levels

Analysis of responses of participants to the PSS-10-C scale [Table 2] showed that nearly 40% HCWs felt nervous and stressed about the pandemic (item 3); in contrast, half of the participants felt confident in handling personal problems (item 4). Increasing difficulties and inability to overcome them (item10) were occasionally perceived by 52% HCWs, whereas 29% HCWs felt this way always. The mean PSS 10-C of the participants was 19.24 ± 4.315, with the minimum and maximum values as 3 and 30, respectively. Nearly 87% of participants experienced moderate stress, of which nearly half were interns, residents, and medical officers [Figure 4].

Emotion scale

PANAS scale describes the mood/emotion experienced most of the time by the participants during the pandemic [Table 3]. Most participants felt alert (87.5%, n = 352), determined (79.6%, n = 320), inspired (63.6%, n = 256), less enthusiastic (58.7%, n = 236), and excited (41.8%, n = 168). Regarding negative emotions, it was observed that participants were little more upset (66%, n = 265) and afraid and distressed (60.7%, n = 244) than being scared (57.4%, n = 231) and nervous (57%, n = 229). Overall, positive (15.17 ± 5.806) and negative emotions (14.79 ± 6.11) were equivocal in the participants.

Coping strategies

Table 4 describes the coping strategies adopted by participants in response to various stressors. Respondents with categories

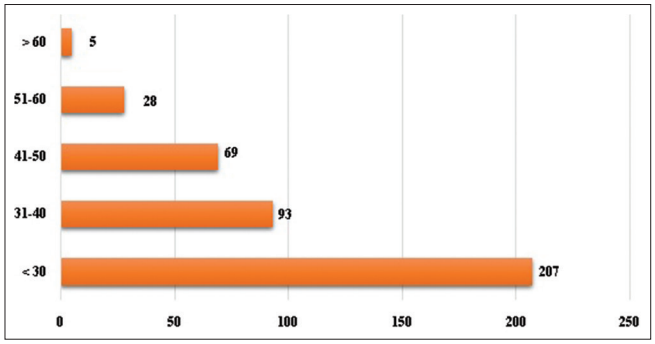

Figure 1: Distribution of participants with respect to age

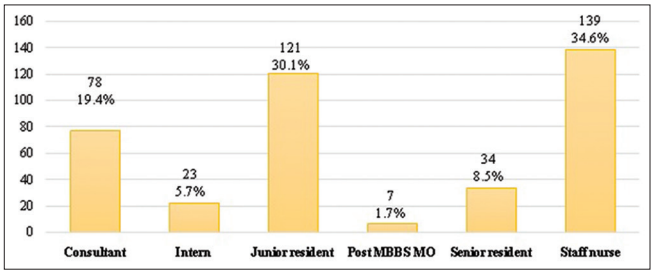

Figure 2: Distribution of participants with respect to designation

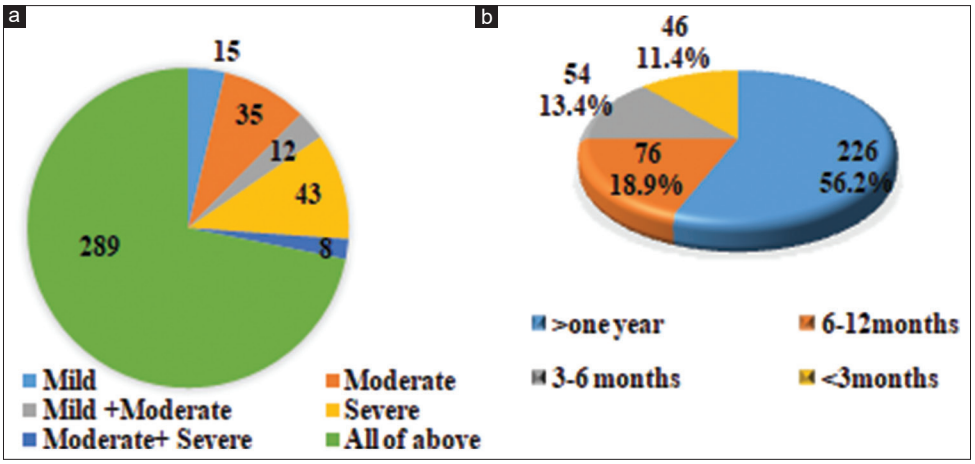

Figure 3: (a) Type of COVID-19 patients managed. (b) Time since managing COVID-19 patients

Table 1: Responses of HCWs to questionnaire on common stressors and PSS-10C scale

Common Stress factors	HCWs responses *n* (%)	Mean±SD
Fear of infecting self/family members	308 (76.6%)	2.98±1.281
Survival of sick patients you have been treating	304 (75.6%)	2.83±1.194
Family members worrying over you	287 (71.4%)	2.81±1.244
Lack of specific treatment in the treatment of patients	233 (57.9%)	2.50±1.191
Lack of resources that may occur	221 (54.9%)	2.45±1.294
Long duty hours with no end of pandemic in sight	271 (67.4%)	2.80±1.259
Aggressive relatives	283 (70.4%)	2.80±1.259
Total (Min Value=0, Maximum value=28)	*n*=402	19.16±7.198

Table 2: Perceptions of participants with respect to the questionnaire of the PSS 10C scale

Perceptions of participants with respect to the questionnaire of the PSS 10C scale	HCW responses *n* (%)			Mean±SD
	Never & Almost never	Occasionally	Always & Almost always	
Felt upset, feeling that something serious was going to happen unexpectedly	52 (13%)	231 (57.4%)	119 (29.6%)	2.19±0.932
Unable to control the important things in life due to pandemic	52 (13%)	232 (57.7%)	118 (29.3%)	2.19±0.932
Felt nervous or stressed about the pandemic	50 (12.4%)	192 (47.8%)	160 (39.8%)	2.34±0.976
Felt confident about your ability to handle your personal problems during the pandemic	44 (11%)	159 (39.6%)	199 (49.5%)	1.23±0.710
Felt optimistic that things were going well with the pandemic	113 (28.1%)	187 (46.5%)	102 (25.4%)	2.66±0.721
Felt unable to cope with the things required for monitoring a possible infection	95 (23.6%)	209 (52%)	98 (24.4%)	1.98±0.960
Felt able to control difficulties that could appear in your life as a result of possible infection	70 (17.5%)	167 (41.5%)	165 (41%)	1.26±0.714
You have everything under control in relation to pandemic	160 (39.8%)	152 (37.8%)	90 (22.4%)	1.18±0.739
Felt upset that things related to the epidemic are out of your control	78 (19.4%)	208 (51.7%)	116 (28.9%)	2.10±0.952
Difficulties were increasing a lot and you could not overcome them	78 (19.4%)	207 (51.5%)	117 (29.1%)	2.10±0.952

PSS-10 C total=19.24±4.315

3 and 4 were clubbed together to note the positive responses. Higher scores indicate increased utilization of that specific coping strategy (mean ± SD). Many participants adopted EFCS such as positive reframing (68.2%, 2.88 ± 0.921), emotional support (65%, 2.85 ± 0.912), acceptance (63.2%, 2.73 ± 0.899), and turning to religion (58%, 2.68 ± 1.047). Common PFCS used were planning and strategization (68.2%, 2.87 ± 0.880), tackling problems (66.7%, 2.80 ± 0.838), and taking advice (60.2%, 2.76 ± 0.933), whereas Dys CS adopted were self-distraction to other activities (61.2%), behavioral disengagement (31.6%), venting out frustration (27.1%), denial (19%), self-blame (15.7%), and substance abuse (8.2%). Humor among emotion-based coping and substance abuse, self-blame, and denial among Dys CS were used the least by participants.

Further analysis was done to elaborate on the relationship between independent variables such as age group, education, designation, and years of experience with respect to stressors,

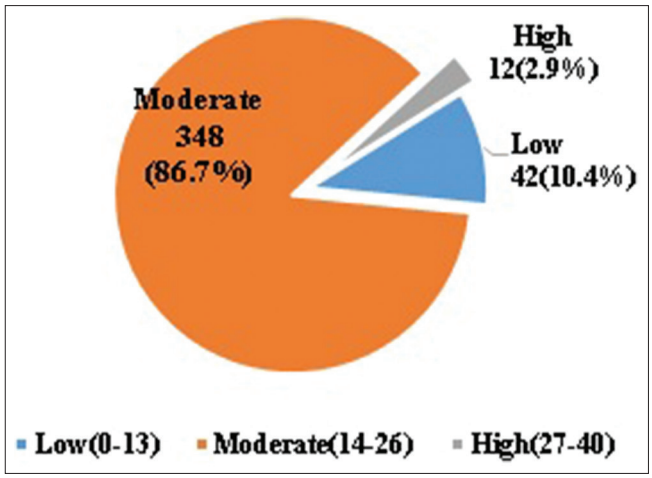

Figure 4: Stress levels of participants based on the PSS 10C scale

stress levels, and emotional responses of participants [Table 5]. Stressors were more significantly perceived by postgraduates, doctors, and those with higher COVID-19 duty experience. Significantly higher stress levels/scores were observed in extremes of age group, postgraduates, doctors, and HCWs with lesser medical experience. More positive emotions were observed in higher age groups, nurses, and higher medical experience (>10 years), whereas negative emotions were more significantly perceived in the younger age group (<30 years), graduates and postgraduates, as well as doctors with <10 years of experience. Though no statistically significant difference was found based on gender regarding variables under study (stressors, stress levels, positive emotions, EFCS, and Dys CS), female HCWs felt more negative emotions (t = 2.429, *P* value = 0.016), and significantly more PFCS (t = 2.097, *P* value = 0.037) were adopted by them. Professionally, nurses perceived fewer stressors and more positive emotions, used more PFCS and EFCS, and had lower stress levels as compared to doctors.

On using Pearson correlation to measure the strength of association between two variables, it was observed that stress factors had moderate correlation with stress levels (r = 0.281; *P* value <0.001) and negative emotions (r = 0.299; *P* value <0.001) and weak correlation with positive emotions, PFCS, and Dys CS [Table 6]. Stress levels (PSS-10C) also had strong correlation with negative emotions (r = 0.451; *P* value <0.001) and weak correlation with Dys CS (r = 0.132, *P* value = 0.008). A weak negative correlation was found between stress levels and positive emotions, PFCS, and EFCS. Similarly, positive emotional responses had moderate correlation with EFCS (r = 0.308, *P* value <0.001) and PFCS (r = 0.346, *P* value <0.001), whereas it had weak negative correlation with negative emotions and Dys CS. EFCS had strong correlation with PFCS (r = 0.593; *P* value <0.001) and moderate correlation with Dys CS (r = 0.225, *P* value <0.001).

The responses of the participants to the open-ended questions were noted in which they were asked to state two things that kept them positive or negative during the COVID-19 pandemic. Family support, meditation, more learning opportunities, helping patients, and taking out time for themselves were the factors that kept them positive, whereas dying patients, financial exhaustion of families, limitation of resources, and violence against HCWs affected them negatively during the pandemic.

Some of the verbatim responses of HCWs are given below:

HCWs felt positive and kept themselves motivated by

- Meditation and reading motivational books, family support, self-confidence
- After every sad day, comes a glad day, so keep smiling
- Faith in God, support from patients, humanity, and teamwork
- This time will also pass. Nothing is permanent
- That I can do something for my patients; the more critical the situation, the more I gear up.

HCWs felt negative sometimes during this pandemic due to

- The never-ending case surge and seeing young and fit people succumb to infection.
- Violence by relatives and some people exploiting patient's relatives
- Dying patient in front of your eyes. Trying everything for patients. Still you are so helpless.
- Less salary, pressure from outside authorities related to documentation
- Long duty hours, no permission to eatables, holding of urine, patient staff ratio is not satisfied, too much stress of work

Discussion

HCWs are always working under physical and emotional stress and in a systematic meta-analysis. The pooled prevalence of stress among HCWs during the pandemic was estimated to be 40%, with many of them having anxiety, burnout, depression, and post-traumatic stress disorder.[16] In our study, the majority of participants were nurses and resident doctors as they form the major workforce during this pandemic. Fear of infection to self or family members, grave outcome of sick patients, long duty hours, and aggression by patients/relatives were some of

Table 3: Mood/emotions of participants during the ongoing pandemic

Mood/Emotion	Not at all (1)	A little (2)	Moderately (3)	Quite a bit (4)	Very much (5)	Mean±SD
Inspired	52	94	140	56	60	14.72±6.09
Alert	10	40	108	92	152	19.17±5.57
Excited	136	98	110	42	16	11.31±5.74
Enthusiastic	75	91	139	62	35	13.65±5.92
Determined	23	59	140	94	86	17.00±5.71
Afraid	39	119	101	93	50	14.95±5.95
Upset	38	99	103	101	61	15.6±6.06
Nervous	60	115	101	87	39	14.15±6.04
Scared	68	103	102	83	46	14.20±6.27
Distressed	46	112	98	83	63	15.06±6.27
Positive Emotions	Minimum score 5, maximum score 25, Mean±SD=15.17±5.806					
Negative emotion	Minimum score 5, maximum score 25, Mean±SD=14.79±6.11					

Table 4: Coping strategies adopted by participants

Brief COPE Questionnaire	Positive responses (3 and 4)	Mean±SD
Emotion-focused coping strategies		
Use of emotional support (item 5)	261 (65%)	2.85±0.912
Positive reframing of the problem (item 12)	274 (68.2%)	2.88±0.921
Humor (item 18)	105 (26.1%)	1.84±0.960
Religion (item 22)	233 (58%)	2.68±1.047
Acceptance (item 24)	254 (63.2%)	2.73±0.899
Problem-focused coping strategies		
Active coping/tackling problems (item 2)	268 (66.67)	2.80±0.838
Use of instrumental support/taking advice (item 10)	242 (60.2%)	2.76±0.933
Planning and strategisation (item 14)	274 (68.2%)	2.87±0.880
Dysfunctional coping		
Self-distraction - turning to work or other activities (item 1)	246 (61.2%)	2.70±0.866
Self-distraction - thinking less and turning to movies, TV etc., (item 19)	251 (62.4%)	2.73±0.998
Substance use (item 4)	33 (8.2%)	1.27±0.663
Behavioral disengagement - giving up dealing with it (item 6)	127 (31.6%)	2.03±0.977
Denial (item 8)	74 (18.4%)	1.64±0.842
Venting - saying things to let unpleasant feelings escape- (item 9)	109 (27.1%)	2.00±0.915
Venting - expressing negative feelings (item 21)	77 (19.2%)	1.77±0.861
Self-blame (item 26)	63 (15.7%)	1.64±0.803

the highly rated stressors. In another study, lack of protocols, scarcity of PPE, exhausting work shifts, concern about self-infection, and death or suffering of their patients were the most commonly perceived stress factors by the HCWs.[17]

In the present study, it was observed that most of the participants (87%) experienced moderate stress levels (19.24 ± 4.315) as compared to another study that reported higher stress levels with a mean score of 24 on the PSS-10 scale.[18] Moderate or high stress levels observed in HCWs are a significant matter of concern, and adequate emotional support and counseling are necessary to avoid long-term consequences of stress and anxiety.[18-20] Higher stress levels (PSS-10C) and negative emotions were more significantly perceived in the younger age group, graduates and postgraduates, and HCWs with less than 10 years of experience, which implies that these particular groups are vulnerable and need psychological and social support. Other studies have also highlighted a high prevalence of stress, anxiety, and poor mental health in young HCWs who have been treating COVID-19 patients.[11,12]

HCWs respond differently with positive as well as negative emotional responses in stressful situations. Negative emotions are considered a significant risk factor in affecting mental health, whereas there is possibly a buffering effect of positive affect in coping with mental stress.[21] Overall positive and negative emotional responses in study participants were equivalent with no significant difference between them. It was also observed that stress factors and stress levels had a strong correlation with negative emotions, thus highlighting the significance of lowering the stress levels in HCWs with appropriate coping mechanisms to maintain positive mental health. As our young brigade is out there braving the pandemic

Table 5: Comparison of independent variables with stressors, stress scale, and positive and negative emotions in HCWs

	Stressors		PSS 10 C		Positive emotion		Negative emotion	
	Mean±SD	*F* (*P*)	Mean±SD	*F* (*P*)	Mean±SD	*F* (*P*)	Mean±SD	*F* (*P*)
Age group								
<30	19.38±7.24	0.386 (0.818)	19.89±4.01	2.897 (0.022)	14.51±4.25	2.959 (0.02)	15.81±4.98	4.422 (0.002)
31-40	19.32±6.80		18.60±4.35		15.84±4.71		13.74±5.26	
41-50	18.33±7.68		18.13±4.73		15.54±4.00		13.45±4.97	
51-60	19.43±7.45		19.14±4.20		16.82±4.48		14.11±5.14	
>60	17.20±4.97		19.80±6.72		16.20±4.60		14.40±5.45	
Education								
Under-grad	17.42±5.42	5.26 (0.006)	17.76±4.34	9.625 (0.0001)	15.64±3.34	0.335 (0.715)	12.73±4.89	3.884 (0.021)
Grad	17.90±7.35		18.25±5.18		15.29±4.63		15.46±5.30	
Post-grad	20.13±7.19		20.01±3.54		15.04±4.38		14.69±5.03	
Designation								
Doctor	20.51±6.68	28.67 (0.0001)	20.06±3.51	29.76 (0.0001)	14.59±4.21	14.13 (0.001)	15.05±5.10	1.898 (0.17)
Nurse	16.60±7.46		17.68±5.19		16.29±4.50		14.30±5.23	
Years of experience								
<5 years	19.48±6.85	0.529 (0.59)	19.80±3.88	3.954 (0.02)	14.62±4.29	7.109 (0.001)	15.57±4.97	7.008 (0.001)
5-10 years	19.34±7.87		19.40±4.63		14.40±4.09		15.37±5.43	
>10 years	18.68±7.29		18.48±4.56		16.23±4.45		13.56±5.02	
COVID-19 experience								
<1 yr	18.33±7.05	4.218 (0.041)	18.98±4.26	1.08 (0.29)	14.72±4.29	3.351 (0.06)	14.56±5.06	0.602 (0.43)
>1 yr	19.81±7.26		19.43±4.36		15.53±4.43		14.96±5.23	

Table 6: Relationship between dependent variables (stressors, stress levels, emotional responses, and coping strategies)

	PSS-10C	Positive Emotion	Negative Emotion	EFCS	PFCS	Dysfunctional coping
Stressors						
Pearson Correlation	0.281	0.066	0.299	0.074	0.077	0.126
P	<0.001	0.188	<0.001	0.138	0.122	0.012
PSS-10 Total						
Pearson Correlation		−0.140	0.451	−0.027	−0.132	0.132
P		0.005	<0.001	0.585	0.008	0.008
Positive emotion						
Pearson Correlation			−0.113	0.308	0.346	−0.145
P			0.024	<0.001	<0.001	0.003
Negative emotion						
Pearson Correlation				0.023	−0.056	0.181
P				0.647	0.262	<0.001
Emotion FC						
Pearson Correlation					0.593	0.225
P					<0.001	<0.001
Problem FC						
Pearson Correlation						0.076
P						0.128

storm, it is imperative that they are given adequate training, counseling, and emotional evaluation before, during, and after posting in COVID-19 areas on a regular basis. It has been shown that appropriate coping behaviors, resilience, and social support lead to the positive mental health of HCWs.[22]

Coping strategies are cognitive and behavioral efforts used by HCWs to manage specific conflicts in certain situations that exceed normal behaviors.[23] PFCS helps solve stressful situations through active interventions, whereas emotion-focused coping is aimed at managing emotions and regulating the response to stress.[24] In the present study, it was observed that problem- and emotion-focused strategies were more frequently used rather than dysfunctional coping strategies, which is quite encouraging. Planning and strategization, problem solving, positive reframing, and emotional support were some of the common PFCS and EFCS used by the HCWs. Nearly 58% of participants turned to religion for coping. On a positive note, in our study, the mean score was the highest for positive reframing, planning, and active coping

and was the lowest for substance abuse, denial, and humor as coping mechanisms. Similarly, in another study, religious coping had the highest mean score, followed by acceptance, self-distraction, and active coping, whereas it was the lowest for humor and substance use.[25] Self-distraction was the most common Dys CS adopted by our study participants, whereas venting, denial, self-blame, and substance abuse were less often used. HCWs with positive emotions relied significantly on emotion- and problem-focused strategies, whereas those with negative emotions relied largely on Dys CS. Studies have also shown that stress levels experienced have a positive correlation with the use of coping strategies and that applying Dys CS, including avoidance, hostility, and self-blame, may develop higher stress levels.[9,26,27] It is also observed that individuals apply Dys CS when an uncontrollable event presents, whereas they respond with emotions-based coping strategies when it is a controllable situation.[27] Though more negative emotions were perceived by female HCWs, more PFCS were used by them, implying that negative emotions can also lead to going into problem-solving mode. As mentioned in an earlier study, stress is differently experienced between genders, with women commonly showing emotional exhaustion, whereas men generally feel more depersonalized.[28] It has also been observed that dysfunctional coping is not ideal for managing anxiety and stress, whereas PFCS and EFCS have been associated with better responses to adverse situations.[29,30]

Strengths and limitations

This study is a unique attempt to look into the emotional and psychological mindset of those HCWs using standardized scales. A few open-ended questions introduced in the proforma helped in highlighting the day-to-day emotional issues, strength, resilience, and the coping efforts put in by HCWs to stay positive despite all odds. The main limitation of the study is the small sample size; thus, the findings could probably not be generalized to all HCWs. This study highlights the stressors, stress levels, emotional responses, and coping strategies based on various validated scales which are based only on the perception of HCWs and do not involve the objective evaluation of anxiety, depression, or mental health.

Conclusions

Policies should be laid down at the health facility and administration level to minimize the factors responsible for stress and to lower the stress levels in HCWs along with encouraging positive emotions and appropriate problem- and emotion-focused coping strategies with less reliance on dysfunctional coping to manage pandemic/work-related stress. Protection of the mental health of HCWs is the need of the hour to reduce the risk of development of long-term anxiety, depression, and other stress-related disorders as well as for efficient functioning during the pandemic.

Declaration of participant consent

The authors certify that they have obtained all appropriate participant consent forms. In the form, the participants have given their consent for their information to be reported in the journal. The participants understood that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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