

Research Paper

Anxiety, Burnout, Resilience, and Optimism during the COVID-19 Pandemic: A Correlational Study of Healthcare Professionals

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ABSTRACT

The COVID-19 pandemic has been detrimental for both physical and psychological well-being of frontline healthcare workers all over the world. Numerous studies report the increased prevalence rates of stress, depression, anxiety, PTSD, and burnout among healthcare professionals. Drawing from the scholarship in positive psychology, this paper investigated if the character strengths such as resilience and optimism can act as protective factors against the adverse mental health consequences such as anxiety and burnout among the frontline healthcare professionals. The aim of the study was to examine the correlation between anxiety, burnout, resilience and optimism among healthcare professionals during the COVID-19 pandemic. The sample of the study consisted of 100 healthcare professionals who worked during the COVID-19 pandemic in India and abroad. The data was collected using COVID-19 Burnout Scale, COVID-19 Anxiety Scale, Brief Resilience Scale, and Life Attitude Scale-Brief in online mode. Subsequently, Pearson's product moment correlation was calculated to assess the correlation between the variables. The results indicated a statistically positive correlation between the COVID-19 anxiety and the COVID-19 burnout, and resilience and optimism. There was also a significant negative correlation observed between the COVID-19 anxiety and resilience, and the COVID-19 burnout and resilience. The correlation between the COVID-19 anxiety and tragic optimism and the COVID-19 burnout and the tragic optimism was not statistically significant. The study creates a strong case for introducing resilience building initiatives for mental health so that they can cope with the COVID-19 pandemic better.

Keywords: *Stress, Burnout, Resilience, Tragic optimism, COVID-19 pandemic, healthcare professionals*

The COVID-19 pandemic has taken a toll on the frontline healthcare workers at both physical and psychological levels. Naturally, they are at a greater risk of being infected with COVID-19 due to exposure to infected patients. In a systematic review study done last year, Bandopadhyaya et al. (2020) reported that at least 1,52,888 healthcare workers have contracted COVID-19 infection worldwide and this has led to, at least, 1413 casualties. Healthcare professionals are also grappling with a heavy workload for a very long time now. It is therefore no surprise that most doctors, nurses, paramedics, and other

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healthcare professionals are living through challenging times resulting in adverse psychological consequences. There have also been reports about the increased prevalence rates of psychological distress, depression, PTSD, anxiety, and burnout among healthcare workers as compared to the general population (Shechter et al., 2020). A study on prevalence of psychological disorders among the healthcare professionals responsible for caring for patients with COVID-19 reported that 23.4% of these professionals are depressed, 25.8% experience anxiety and 45% are impacted by stress (Salari et al. 2020). Many healthcare workers also experience severe ‘parental coronavirus anxiety’ where they worry about transmitting COVID-19 to their children (Yildirim, Özasan, & Arslan 2021). The unpredictability of the situation with new variants of the COVID-19 emerging every few months seems to be adding to the anxiety among people, which is further intensifying their mental health concerns (Yildirim & Arslan, 2020). This effect, in the face of the pandemic, is not at all unexpected. During the 2003 outbreak of Severe Acute Respiratory Syndrome (SARS), it was observed that the healthcare workers who had direct contact with SARS patients had significantly higher anxiety as compared to the healthcare workers who had no direct contact with SARS infected patients (Poon et al., 2004).

The anxiety and fear among healthcare professionals are also frequently accompanied by the signs of burnout. Burnout can be defined as “a psychological syndrome emerging as a prolonged response to chronic interpersonal stressors on the job. The three key dimensions of this response are an overwhelming exhaustion, feelings of cynicism and detachment from the job, and a sense of ineffectiveness and lack of accomplishment” (Maslach & Leiter, 2016, p. 103). According to the World Health Organisation (WHO), burnout is one of the major adverse consequences of unmanaged and prolonged workplace stress. The link between stress, burnout and anxiety among doctors and nurses during the COVID-19 pandemic has been well-established by the researchers. Sung et al. (2020) reported a higher prevalence of burnout among nurses and doctors during the COVID-19 pandemic. A meta-analytic study by Galanis et al. (2021) found that the nursing staff experienced high levels of burnout during the pandemic.

The scholarship in the area of positive psychology strongly indicates that character strengths such as hope, resilience, and optimism play an instrumental role in dealing with adversity. Even during the unprecedented times of the pandemic, these very character strengths may act as protective factors against the adverse mental health consequences. Scheier & Carver (1985) defined optimism as a person’s generalized tendency to expect more positive outcomes about one’s future rather than negative ones. A number of recent studies have negatively linked optimism with work-related anxiety and burnout during the pandemic (e.g., Arslan et al., 2020) and therefore, one may expect optimism to play a significant role in protecting healthcare professionals from the harmful effects of anxiety and burnout. It is further pertinent to note that ‘tragic optimism’ (Wong, 2001)—a special kind of faith-based optimism that gives a person hopeless hope even in the face of otherwise tragic and dire situations—has been found to have a buffering effect against the suffering experiences of COVID-19 (Leung, Arslan & Wong, 2021). This form of optimism may also be relevant for healthcare professionals as a buffer as they struggle with a pandemic that seems to be beyond human control.

Resilience is defined as “the process of adapting well in the face of adversity, trauma, tragedy, threats, or even significant sources of stress (para. 4)” (American Psychological Association, 2014). It is commonly understood as one’s ability to bounce back and quickly

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recover from difficult and stressful situations. As a character strength, resilience is also reflective of people's ability to adapt to novel situations and grow in the face of adversity. Even among mental health professionals, resilience has been found to be linked positively with indicators of mental health such as positive affect, subjective well-being, and life satisfaction. It has also been found to be negatively linked with negative affect, depression, and anxiety (Hu et al., 2020). Many recent studies have established that resilience can reduce the negative effects of stress and burnout on mental health and promote psychological well-being, even during the COVID-19 pandemic (e.g. Arslan, Yildirim, and Wong, 2020). Therefore, it may be interesting to examine the link between resilience, anxiety, and burnout among mental health professionals during the pandemic.

The Present Study: Aim and Hypothesis

With this backdrop, the present study aims at examining the relationship between anxiety, burnout, resilience and optimism among healthcare professionals during the COVID-19 pandemic. The hypothesis tested in the present study are:

- Hypothesis 1 (H1): There would be a significant positive correlation between COVID-19 related anxiety and burnout among mental health professionals
- Hypothesis 2 (H2): There would be a significant negative correlation between COVID-19 related anxiety and resilience among mental health professionals
- Hypothesis 3 (H3): There would be a significant negative correlation between COVID-19 related anxiety and tragic optimism among mental health professionals
- Hypothesis 4 (H4): There would be a significant negative correlation between COVID-19 related burnout and resilience among mental health professionals
- Hypothesis 5 (H5): There would be a significant negative correlation between COVID-19 related burnout and tragic optimism among mental health professionals
- Hypothesis 6 (H6): There would be a significant positive correlation between resilience and tragic optimism among mental health professionals

METHODOLOGY

Keeping in view the key research objectives, the current study was designed as a quantitative correlational study.

Participants:

The participants were 100 healthcare professionals working during the COVID-19 pandemic in India and abroad. As for the inclusion criteria, the participants were required to be healthcare professionals (medical doctors, dental professionals, physical therapists, clinical psychologists and other allied health professionals) working during the COVID-19 pandemic in India or abroad. They should be above 18 years of age and should have a working knowledge of the English language. Since the data is to be collected in online mode, they should have access to the internet and an electronic device. The sample characteristics are presented in Table no. 1.

Sampling:

The participants were recruited through non-probability convenience and snowball sampling. Firstly, the participants fitting the inclusion criteria were reached through personal contact, and then they were asked for further recommendations about other potential participants.

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Table no. 1 Characteristics of the sample (N=100)

Variable	Group	Number (n)	Percentage (%)
Gender	Female	58	58
	Male	42	42
	Prefer not to say	0	0
Age (in years)	20-30	17	17
	30-40	12	12
	40-50	37	37
	Above 50	34	34
Nature of Job	Medical Doctors	61	61
	Dental Professionals	10	10
	Nurse	5	5
	Physical Therapist	4	4
	Clinical Psychologist	1	1
	Allied Health Professionals	7	7
	Other	12	12
Total Professional Experience (in years)	2-5	15	15
	5-10	10	10
	10-20	28	28
	More than 20	47	47

Measures

The present study employed 4 psychometric scales for measurement of anxiety, burnout, resilience, and optimism. A brief description of these measures is as follows:

- **COVID-19 Burnout Scale (COVID-19 BS):** It is a ten-item scale developed by Yildirim & Solmaz (2020). The scale was modified from Malach-Pines’s (2005) Burnout Measure (Short Version) where the original wording of the items was changed from “your work” to “COVID-19”. The scale used a 5-point Likert scale, where the participant could respond from never (1) to always (5). The total score on this scale is the sum of responses from participants on all items, therefore, the minimum score possible is 10 and the maximum score possible is 50. A high score on this scale indicates a high level of burnout due to the COVID-19 pandemic. This is an easy to administer, unidimensional and psychometrically reliable and valid measure of burnout in reference to COVID-19.
- **COVID-19 Anxiety Scale (CAS):** This scale was developed by Silva, de Sampaio Brito & Pereira (2020). It is a 7-item scale where participants were asked to respond to each statement on a 4 point Likert rating scale. Each statement could be rated from not applicable to me (0) to very applicable to me (3). The total score could be obtained by averaging the scores on individual items. The higher is the average, the greater will be a person’s score on COVID-19 related anxiety. This psychometric measure is easy to administer, and has strong reliability and validity (Silva, de Sampaio Brito & Pereira, 2020)
- **Brief Resilience Scale (BRS):** It is a short 6-item scale developed by Smith et al. (2008) to assess people’s perceived ability to recover or bounce back from stress. The scale used a 5-point Likert scale, where each item can be rated from strongly disagree (1) to strongly agree (5). The even items (2, 4 and 6) on this scale are scored in reverse. The total score is obtained by adding the score of all the 6 items (after factoring in reverse scoring). The least possible score on this scale is 6 and the

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maximum possible score is 30. High scores on BRS indicate greater resilience. It is an easy to administer scale that considers resilience as a unitary construct. The scale is a psychometrically reliable and valid measure. It has strong internal consistency (0.80-0.91) and test-retest reliability (0.69) and strong convergent and discriminant predictive validity (Smith et al., 2008).

- **Life Attitude Scale-Brief (LAS-B):** This 15-item scale was developed by Leung, Arslan & Wong (2021). LAS-B is a short version of the 32-item 'Life Attitude Scale' developed to measure tragic optimism by Wong (2009). This short scale captures all the five factors of tragic optimism (i.e., affirmation, acceptance, courage, faith, and self-transcendence) and also yields a global score. The scale uses a 4-point Likert rating scale, ranging from strongly disagree (1) to strongly agree (4). In the present study, only the global score indicative of tragic optimism was calculated by adding the score of all individual items. The scale is easy to administer and has good reliability and validity (Leung, Arslan & Wong, 2021)

Procedure

The data of the present study were collected in an online mode. A Google form was created for data collection. The study along with the Google form was prompted and publicised on social media to solicit participation from healthcare professionals. The participants were also contacted over email and through voice and text messaging apps (such as WhatsApp). Many participants were contacted on the phone through personal contacts. Those who volunteered to participate in the study or showed interest were provided with the link of the Google form (via email, WhatsApp or over social media)

The first section of the Google form included the background of the study, detailed instructions and informed consent. After the participants accepted the terms and understood the instructions, they were directed to the second section of the Google Form, which was designed to collect the demographic details. After filling in these details, the participants were directed to section 3 which included the 4 measures used in the present study. Responding to all the items in all the scales was made mandatory. The editing of responses after submission was not permitted. The total time estimated to complete the Google form was about 20-25 minutes. The data was collected in the months of December (2021), January and February (2022).

Data-Analysis

The statistical analysis was carried out with the help of SPSS ver. 22. A descriptive statistical analysis was conducted to illustrate the demographic characteristics, level of COVID-19 related anxiety and burnout among participants. Person's correlation was used to examine the relationship between anxiety, burnout, resilience and optimism.

RESULTS

To test the hypothesis delineated in the present study, Pearson's correlation coefficients were calculated among the four variables of the study (i.e., COVID-19 Burnout, COVID-19 Anxiety, Resilience and Tragic Optimism). The results for the same are presented in Table no. 2.

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Table 2: Pearson's correlation results for COVID-19 Burnout, COVID-19 Anxiety, Resilience and Tragic Optimism (N=100, df=98)

		Mean	S.D	1.	2.	3.	4.
1.	COVID-19 Burnout	24	8	1			
2.	COVID-19 Anxiety	1.01	0.70	0.59**	1		
3.	Resilience	3.31	0.58	-0.40**	-0.33**	1	
4.	Tragic Optimism	48	6	-0.13	0.001	0.18*	1

** $p < 0.01$ (Correlation is statistically significant at the 0.01 level (one-tailed test))

* $p < 0.05$ (Correlation is statistically significant at the 0.05 level (one-tailed test))

As can be seen from the results table, there is a significant positive correlation between the COVID-19 Burnout and COVID-19 Anxiety ($r=0.59^{**}$, $p < 0.01$) in the present study. Further, there exists a significant negative correlation between the COVID-19 Burnout and Resilience ($r=-0.40^{**}$, $p < 0.01$) in the present study. There is an insignificant negative correlation between COVID-19 Burnout and Tragic Optimism ($r=-0.13$) in the present study. As for the relationship between COVID-19 Anxiety and resilience is concerned, there exists a significant negative correlation between the two ($r=-0.33^{**}$, $p < 0.01$) in the present study. There exists no correlation between COVID-19 Anxiety and Tragic Optimism ($r=0.001$) in the present study. There is a significant positive correlation between Resilience and Tragic Optimism ($r=0.18^*$, $p < 0.05$).

DISCUSSION

The present study investigated the relationship between COVID-19 related anxiety, COVID-19 related burnout, resilience and tragic optimism among the healthcare professionals during the ongoing pandemic. The data were collected on 100 healthcare professionals through standardized psychological measures and subsequently, Pearson's correlation coefficients were calculated and checked for statistical significance. As per the results, out of the 6 hypotheses we delineated for the study, 4 were accepted and two were rejected.

The first hypothesis of the study expected a significant positive correlation between COVID-19 related anxiety and burnout among mental health professionals. This hypothesis was strongly supported. A positive correlation between anxiety and burnout was expected as many studies have pointed out that continued exposure to excessive stress leads to anxiety which increases the instances of burnout, which is especially true in the backdrop of the current pandemic. These findings are in line with another study by Çelmeçe and Menekay (2020) done on healthcare professionals including doctors, nurses, and healthcare assistants working during the COVID-19 pandemic in Turkey. This research reported a significant positive correlation between trait anxiety and burnout and a significant negative correlation between the quality of life and anxiety, burnout and stress.

The second hypothesis speculating a negative relationship between COVID-19 related anxiety and resilience among mental health professionals was supported in the present study. Therefore, it indicates that healthcare professionals with high resilience tend to score low on anxiety and vice versa. A similar finding was also reported in a study by Setiawati et al. (2021) where a significant negative correlation between state and trait anxiety and resilience was observed in healthcare workers dealing with the COVID-19 pandemic in Indonesia. Another study by Yıldırım, Özaslan, & Arslan (2021) on healthcare professionals in Turkey also reported a significant negative correlation between resilience and anxiety. Based on these studies, one may infer that the character trait of resilience may act as a buffer against

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the anxiety induced due to the pandemic by having a positive impact on mental health in general (Yildirim & Arslan, 2020).

The third hypothesis anticipated that there would be a significant negative correlation between COVID-19 related anxiety and tragic optimism among mental health professionals. This hypothesis was rejected, as no correlation (either positive or negative) was observed between these two variables. Rather, these variables don't seem to be connected at all as their correlation approaches zero. Therefore, it may be said that at least in healthcare professionals in the present study, there was no relationship observed between anxiety and optimism. Currently, there is a dearth of studies linking anxiety with tragic optimism and therefore, there is not enough research evidence clarifying the link between the two variables. However, it may be suggested that tragic optimism may not be a protective factor against the anxiety induced due to the uncertainty and suffering due to the COVID-19 pandemic. But, it certainly may help people make meaning of their hardships and may give them hope for the future (Leung, Arslan & Wong, 2021).

The fourth hypothesis proposed a significant negative correlation between COVID-19 related burnout and resilience among mental health professionals was strongly supported in the present study. These findings are in line with a study done by Jose, Dhandapani, & Cyriac (2020) which reported a significant negative correlation between the two metrics of burnout-emotional exhaustion and personal inefficacy, and resilience among the frontline nurses working in the emergency wards during the COVID-19 pandemic in North India. Similar findings were reported in a study done in Rome by Di Trani et al. (2021) on healthcare workers including doctors, nurses, midwives, psychologists, lab technicians and administrative workers active during the COVID-19 pandemic. They reported a significant negative correlation between resilience and depersonalisation and emotional exhaustion dimensions of burnout. A significant positive correlation was reported between resilience and the personal accomplishment dimension of burnout in this study. This relationship between resilience and burnout may be explained in terms of resilience contributing to better stress management, coping, and improved mental health outcomes and therefore acting as a protective factor against burnout.

The fifth hypothesis anticipating a significant negative correlation between COVID-19 related burnout and tragic optimism among mental health professionals was rejected in the present study. The variables of burnout and tragic optimism were not related in the present study. Many studies have reported a positive correlation between optimism and burnout among the healthcare professionals in the context of the pandemic (e.g., Yildirim, Çiçek, & Şanlı, 2021, Malagón-Aguilera et al., 2020) and therefore, the same was expected for tragic optimism and COVID-19 related burnout. But, as per the results, there was no correlation between the two. Though optimism, in general, is established as a protective factor against burnout in healthcare professionals, tragic optimism may not have the same effect. The reasons for the same are unclear and may be explored further in the subsequent studies.

The sixth hypothesis proposed that there would be a significant positive correlation between resilience and tragic optimism among mental health professionals. This hypothesis was accepted. This means that the healthcare professionals with high/low tragic optimism were also likely to be high/low on resilience. Along similar lines, a study by Nazari, Zekiy, Feng, & Griffiths (2021) reported a significant positive correlation between resilience and optimism among Persian-speaking people during the COVID-19 pandemic. Another study

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by Maheshwari & Jutta (2020) on Indian university students reported a significant positive correlation between resilience and optimism. Being optimistic is considered one of the key contributors to being able to bounce back from adversity. Both resilience and optimism are part of PsyCap and, therefore, are expected to be positively correlated.

The studies done thus far have not studied anxiety, burnout, resilience, and optimism together, especially among the healthcare professionals in the backdrop of the COVID-19 pandemic. So, one of the studies that come closest to the intent and outcome of the present research is a validation study of the COVID-19 Burnout Scale by Yildirim & Solmaz (2020). The study was done on 402 Turkish adults, and the mediational analysis of the data established that COVID-19 stress predicted COVID-19 burnout and resilience. Resilience also predicted COVID-19 burnout. Resilience partially mediated the relationship between COVID-19 stress and COVID-19 burnout. This study however did not study optimism in relation to these variables. Another study by Yildirim, Çiçek & Şanlı (2021, p. 5763) investigated “if optimism and social connectedness mediated the relationship between coronavirus stress and COVID-19 burnout in a large sample of healthcare staff.” The results indicated that COVID-19 stress affected COVID-19 burnout directly and indirectly by reducing social connectedness and optimism. The findings of the present study are also in line with an investigation done by Luceño-Moreno, Talavera-Velasco, García-Albuerne & Martín-García (2020) on Spanish healthcare professionals working as frontline workers in the COVID-19 pandemic. The participants in the study reported a high incidence of post-traumatic stress, anxiety, and depression. High scores of burnout were found to be a risk factor for mental health, while resilience was found to be a protective factor.

There can be some significant implications of this study for the mental health of the healthcare professionals during the COVID-19 pandemic. Firstly, it is important for the doctors, nurses, other healthcare professionals, and the hospital management to realize that the anxiety induced by the pandemic, and the constant work-related stress may result in burnout and make them vulnerable to a range of physical and psychological ailments. Secondly, the hospital management should roll out initiatives to reduce work-related stress and promote resilience among the healthcare professionals with the hope to bring down the levels of anxiety and burnout. These initiatives could include resilience-building training programs, personalized counselling sessions, on-demand leaves for mental health concerns and strict adherence to the COVID-19 protocols for ensuring the safety of healthcare professionals and their family members. Thirdly, there could be a lot of self-care strategies that may be adopted by healthcare professionals as a part of their daily routine. These may include yoga, meditation, exercise, a healthy diet, and a healthy dose of social connection with loved ones mediated by technology. Lastly, while dismissing suffering and looking for a silver lining in the pandemic is difficult, healthcare professionals may benefit from keeping faith and adopting an existential outlook on these tragic events.

Limitations

The small sample size could be one of the limitations of the present study. The sampling was also non-probability sampling and therefore, the sample may not have been representative of the population. The data for the survey was also carried out in the online mode due to the pandemic and therefore, the researcher had no personal offline connection with the participants. This could have affected the quality of data collection. Furthermore, there was more number of older participants in the sample as compared to younger participants, and this could have impacted the results. The number of medical doctors was also much higher

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in comparison to other healthcare professionals, and this could have also impacted the findings.

CONCLUSION

Despite these limitations, the present study makes some significant contributions. This is the first study to investigate the correlation between anxiety, burnout, resilience, and optimism among healthcare professionals in the backdrop of the pandemic. The results indicate a significant positive correlation between the COVID-19 anxiety and the COVID-19 burnout, and resilience and optimism. There was also a significant negative correlation observed between the COVID-19 anxiety and resilience, and the COVID-19 burnout and resilience. The correlation between the COVID-19 anxiety and tragic optimism and the COVID-19 burnout and the tragic optimism was not statistically significant.

REFERENCES

- American Psychological Association. *The road to resilience*. Washington, DC: American Psychological Association; 2014. Retrieved from <http://www.apa.org/helpcenter/road-resilience.aspx>. [Google Scholar]
- Arslan, G., Yildirim, M., & Wong, P. T. P. (2020). Meaningful living, resilience, affective balance, and psychological health problems during COVID-19. *PsyArXiv*, 1–31. <https://doi.org/10.31234/osf.io/wsr3e>
- Arslan, G., Yildirim, M., Tanhan, A., Buluş, M., & Allen, K. (2020). Coronavirus Stress, OptimismPessimism, Psychological Inflexibility, and Psychological Health: Psychometric Properties of the Coronavirus Stress Measure. *International Journal of Mental Health and Addiction*. <https://doi.org/10.31234/osf.io/n6dcj>
- Bandyopadhyay S, Baticulon RE, Kadhum M, Alser M, Ojuka DK, Badereddin Y, et al (2020) Infection and mortality of healthcare workers worldwide from COVID-19: a systematic review. *BMJ Glob. Health* 5:e003097
- Çelmeçe, N., & Menekay, M. (2020). The effect of stress, anxiety and burnout levels of healthcare professionals caring for COVID-19 patients on their quality of life. *Frontiers in psychology*, 3329. <https://doi.org/10.3389/fpsyg.2020.597624>
- Cheong, D., & Lee, C. (2004). Impact of severe acute respiratory syndrome on anxiety levels of front-line health care workers. *Hong Kong Med J*, 10(5), 325-30.
- Di Trani, M., Mariani, R., Ferri, R., De Berardinis, D., & Frigo, M. G. (2021). From resilience to burnout in healthcare workers during the COVID-19 emergency: the role of the ability to tolerate uncertainty. *Frontiers in Psychology*, 12, 987.
- Galanis, P., Vraika, I., Fragkou, D., Bilali, A., & Kaitelidou, D. (2021). Nurses' burnout and associated risk factors during the COVID-19 pandemic: A systematic review and meta-analysis. *Journal of advanced nursing*, 77(8), 3286-3302.
- Hu, D., Kong, Y., Li, W., Han, Q., Zhang, X., Zhu, L. X., Wan, S. W., Liu, Z., Shen, Q., Yang, J., He, H.-G., & Zhu, J. (2020). Frontline nurses' burnout, anxiety, depression, and fear statuses and their associated factors during the COVID-19 outbreak in Wuhan, China: A large-scale cross-sectional study. *EClinicalMedicine*, 24, 100424. <https://doi.org/10.1016/j.eclinm.2020.100424>
- Jose, S., Dhandapani, M., & Cyriac, M. C. (2020). Burnout and Resilience among Frontline Nurses during COVID-19 Pandemic: A Cross-sectional Study in the Emergency Department of a Tertiary Care Center, North India. *Indian journal of critical care medicine: peer-reviewed, official publication of Indian Society of Critical Care Medicine*, 24(11), 1081–1088. <https://doi.org/10.5005/jp-journals-10071-23667>

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- Leung, M. M., Arslan, G., & Wong, P. T. (2021). Tragic Optimism as a Buffer Against COVID-19 Suffering and the Psychometric Properties of a Brief Version of the Life Attitudes Scale. *Frontiers in psychology*, 12.
- Luceño-Moreno, L., Talavera-Velasco, B., García-Albuerne, Y., & Martín-García, J. (2020). Symptoms of posttraumatic stress, anxiety, depression, levels of resilience and burnout in Spanish health personnel during the COVID-19 pandemic. *International journal of environmental research and public health*, 17(15), 5514.
- Maheshwari, A., & Jutta, M. V. (2020). Study of relationship between optimism and resilience in the times of COVID-19 among university students. *The International Journal of Indian Psychology*, 8(3).
- Malach-Pines, A. (2005). The Burnout Measure, Short version. *International Journal of Stress Management*, 12(1), 78–88. <https://doi.org/10.1037/1072-5245.12.1.78>
- Maslach, C., & Leiter, M. P. (2016). Understanding the burnout experience: Recent research and its implications for psychiatry. *World Psychiatry: Official Journal of the World Psychiatric Association (WPA)*, 15(2), 103–111. <https://doi.org/10.1002/wps.20311>
- Nazari, N., Zekiy, A. O., Feng, L. S., & Griffiths, M. D. (2021). Psychometric validation of the Persian version of the COVID-19-Related Psychological Distress Scale and association with COVID-19 Fear, COVID-19 anxiety, optimism, and lack of resilience. *International journal of mental health and addiction*, 1-16.
- Salari, N., Khazaie, H., Hosseini-Far, A., Khaledi-Paveh, B., Kazemini, M., Mohammadi, M., Shohaimi, S., Daneshkhan, A., & Eskandari, S. (2020). The prevalence of stress, anxiety and depression within front-line healthcare workers caring for COVID-19 patients: A systematic review and meta-regression. *Human Resources for Health*, 18(1), 1–14. <https://doi.org/10.1186/s12960-020-00544-1>
- Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. *Health Psychology*, 4(3), 219–247. <https://doi.org/10.1037/0278-6133.4.3.219>
- Setiawati, Y., Wahyuhadi, J., Joestandari, F., Maramis, M. M., & Atika, A. (2021). Anxiety and Resilience of Healthcare Workers During COVID-19 Pandemic in Indonesia. *Journal of multidisciplinary healthcare*, 14, 1–8. <https://doi.org/10.2147/JMDH.S276655>
- Shechter, A., Diaz, F., Moise, N., Anstey, D. E., Ye, S., Agarwal, S., ... & Claassen, J. (2020). Psychological distress, coping behaviors, and preferences for support among New York healthcare workers during the COVID-19 pandemic. *General hospital psychiatry*, 66, 1-8
- Silva, W., de Sampaio Brito, T. R., & Pereira, C. R. (2020). COVID-19 anxiety scale (CAS): Development and psychometric properties. *Current psychology (New Brunswick, N.J.)*, 1–10. Advance online publication. <https://doi.org/10.1007/s12144-020-01195-0>
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: assessing the ability to bounce back. *International journal of behavioral medicine*, 15(3), 194-200.
- Sung, C. W., Chen, C. H., Fan, C. Y., Su, F. Y., Chang, J. H., Hung, C. C., & Lee, T. S. H. (2020). Burnout in medical staffs during a coronavirus disease (COVID-19) pandemic. *SSRN*: <https://ssrn.com/abstract=3594567>
- Wong, P. T. P. (2009). “Viktor Frankl: Prophet of hope for the 21st century,” in *Existential Psychotherapy of Meaning: Handbook of Logotherapy and Existential Analysis*, eds A. Batthyany and J. Levinson (Phoenix, AZ: Tucker & Theisen).

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- Yildirim, M., & Arslan, G. (2020). Exploring the associations between resilience, dispositional hope, subjective well-being, and psychological health among adults during early stage of COVID-19. *PsyArXiv*, 1–27. [https://doi.org/ 10.31234/osf.io/vp u5q](https://doi.org/10.31234/osf.io/vp u5q)
- Yildirim, M., & Solmaz, F. (2020). COVID-19 burnout, COVID-19 stress and resilience: Initial psychometric properties of COVID-19 Burnout Scale. *Death Studies*, 1-9.
- Yıldırım, M., Çiçek, İ. & Şanlı, M.E. Coronavirus stress and COVID-19 burnout among healthcare staffs: The mediating role of optimism and social connectedness. *Curr Psychol* 40, 5763–5771 (2021). <https://doi.org/10.1007/s12144-021-01781-w>
- Yildirim, M., Özaslan, A., & Arslan, G. (2021). Perceived risk and parental coronavirus anxiety in healthcare workers: A moderated mediation role of coronavirus fear and mental well-being. *Psychology, Health & Medicine*, 1–12. <https://doi.org/10.1080/13548506.2021.1871771>

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Conflict of Interest

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