

Resilience and Self Efficacy among Nurses Working in COVID & Non COVID Dedicated Hospitals in India: A Comparative Study

Anjali Sancha¹, Neha Nidhi²

How to cite this article:

Anjali Sancha, Neha Nidhi. Resilience and Self Efficacy Among Nurses Working in COVID & Non COVID Dedicated Hospitals in India: A Comparative Study. Int J Practical Nurs. 2024; 12(1):25-32.

Abstract

Introduction: Resilience and self-efficacy are important factors in predicting nurses' willingness to take care of patient with emerging infectious disease.¹⁵⁻¹⁶ Resilience is defined as the ability to face adverse situations while remaining focused and optimistic for the future. This attribute is considered vital for clinical nurses who are continually confronted with competing priorities and a complex health care system. Self-efficacy reflects a sense of confidence in individual's capacity to achieve tasks.⁷ It refers to the iraction, level of motivation and psychological state.⁸ The self-efficacy of nurses is correlated with mental health, resilience and job burnout.⁹⁻¹¹ This pandemic has exerted a significant strain on the health care system worldwide. The workload, risks of infection, uncertainty, stigmatization and lack of resources and accessibility has jeopardized the psychological wellbeing of health care workers.¹⁷⁻¹⁹ Nurses experienced significant stress and psychological difficulties.²⁰

Objectives: The aim is to assess and compare the resilience, & self-efficacy among nurses who worked in dedicated COVID hospital vs non-COVID hospitals.

Design and Methods: It's a comparative, Non-experimental research design study in which data was collected from 220 participate by convenience sampling technique from online survey via google form by using socio demographic variables and Resilience Scale and self-efficacy scale. The content validity revealed that tool was valid, and reliability was found within acceptable range.

Data analysis was done by using descriptive and inferential statistics.

Results: Resilience is high in nurses (27.42%) who have worked in COVID dedicated hospital than nurses (22.37%) who have worked in Non-COVID dedicated hospital; Self-efficacy is high in nurses (45.16%) who have worked in COVID dedicated hospitals than that of nurses (30.26%)

Author's Affiliation: ¹Nursing Tutor, ²Nursing Officer, College of Nursing, All India Institute of Medical Sciences, Patna 801507, Bihar, India.

Corresponding Author: Neha Nidhi, Nursing Officer, College of Nursing, All India Institute of Medical Sciences, Patna 801507, Bihar, India.

E-mail: nehanidhinnjmp@gmail.com

Received on: 21.03.2024

Accepted on: 02.04.2024

who have worked in Non -COVID dedicated hospitals.

Discussion: Result indicates the vitality of self-efficacy and resilience among nurses. During the outbreak of SARS-CoV-2, health-care workers with low self-efficacy experienced higher fear. Poor mental health outcomes among nurses warrants the need to implement practice psychological interventions to clear the collapse of the healthcare system in responding to the



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pandemic and in particular all possible efforts should be undertaken to mitigate the risk factor. Healthcare organizations should provide the support to the nurse with sufficient flexibility, and greater investment in the addressing the global shortage of nurses should be given priority in national health policy.

Keywords: Resilience; Self-Efficiency; COVID Vs Non-COVID; Nurses; Infection Prevention; Healthcare.

INTRODUCTION

Caring is the core of the nursing profession and considered the heart of the humanistic play clinical nursing practice however the work nature of the clinical nurses especially during the COVID 19 pandemic continues to change challenge their professional quality of the life and caring behaviors the factors influencing the professional quality of the life and caring behavior of the clinical nurse or not been exclusive explode.

Hospital preparedness is integral in maintaining Health Services and controlling the spread of COVID-19, which involves prevention, monitoring, management and identification of persons affected with COVID-19 or those exposed to them by establishing facility protocols. These measures include training of healthcare personnel on infection prevention, rapid identification, isolation of patients who are confirmed or suspected to have COVID-19, transmission based precaution with the use of appropriate personal protective equipment (PPE), hand hygiene, environment cleaning and moving the patient who is confirmed or suspected to exposure to COVID-19 within the facility and limiting visitor access. It is projected that the large influx in the cases will continue to challenge bed capacity, equipment, and Health Care Personnel in hospitals.³ The American Nurses Association (ANA) emphasized the importance of the proper implementation of protocols and guidelines 2 regarding management of COVID-19.

The ICN estimates that, on average, 10% of all confirmed COVID-19 infections are found among Health Care Workers (range: 0%-15%). More than 1.6 million Health Care workers had been infected across 34 countries showing infection rates ranging as high as 30% at times.⁵ The cumulative number of nurses reported to have died from COVID-19 was 2262 in 59 countries by 2019 (Data missing from other countries).

Fear of infection, work overload, lack of support and insufficient preparations were associated with psychological distress among 421 nurses at the peak of the COVID-19 in Spain from April to May

2020, but this distress was controlled by emotion-focused coping and resilience.⁶

During the outbreak of SARS-CoV-2, health-care workers with low self-efficacy experienced higher fear. Schwarzer raised the concept of general self-efficacy, which referred to an individual's overall self-confidence in dealing with challenges of different environments contexts on burgeoning issues. The self-efficacy of nurses correlated with mental health, resilience, and job burnout. In addition, self-efficacy, an important factor in predicting nurses' willingness to care for patients with emerging infectious disease. In the unending continuous efforts to minimize the devastating effects of COVID 19 and to curb the spread of the disease, this study focuses on resilience and self-efficacy of nurses during COVID-19 outbreaks and explore the relationships among demographic variables, anxiety, depression, self-efficacy and also resilience.

METHODS

Study design: This is a cross sectional correlational study. Setting and participants: The sample for this study are the registered nurses who have worked in dedicated COVID and Non-COVID units. Purposive sampling techniques was used to select the participants. Sample size was 220.

Inclusion Criteria

- Registered nurses with diploma/degree in nursing.
- Nurses who have worked in COVID areas in dedicated COVID hospital.
- Nurses who have worked in Non-COVID hospital.
- Nurses who were willing to give consent to participate in the study.

Methodology: For collecting the data, three tools were used, i.e., structured questionnaire on socio-demographic data, nursing care self efficiency scale (NCSES) and modified Connor Davidson scale. All the tools were validated by the experts.

Modifications suggested were incorporated after careful review and discussions with experts. Reliability of Nursing Care Self-Efficacy Scale was established by using Cronbach's alpha (Cronbach's alpha value 0.96). Reliability of Connor Davidson scale Cronbach's alpha was 0.94. Pilot study was conducted at hospitals across India. For that, we took 8% of our sample size. The total sample size of study was 220 so, for pilot study 8% (*i.e.*, 20). Questionnaire were sent to participants directly via Google form and collected data from the participants and checked for the feasibility of the study, ease of understanding of instruments (tools), and acceptability of design. And further analysis for objectives can also be done.

Data Analysis and Interpretation

The data and the findings had been organized and presented under the following sections, (1) findings related to socio-demographic data (2) findings as per the objectives of the study

Section 1: Findings related to socio-demographic data.

Table 1: Frequency and percentage wise distribution of demographic variables.

Sociodemographic Variable	Frequency	Percentage
Age		
20 – 30 years	112	56%
30 – 40 years	65	32%
40 – 50 years	21	11%
50 – 60 years	2	1%
Gender		
Male	88	44%
Female	112	56%
Education		
ANM	7	4%
GNM	28	15%
B.Sc. Nursing	159	78%
M.Sc. Nursing	6	3%
Experience		
0 – 5 years	110	55%
6 – 10 years	61	30%
> 10 years	29	15%
Year of experience in COVID area		
0 month	76	38%
< 12 months	102	51%
>= 12 months	22	11%
Place of posting Ward		
109	55 %	

ICU	55	10%
Trauma	20	88%
Operation Theatre	16	8%

This section consists of findings related to socio-demographic variables like age, gender, religion, marital status, number of children, residence, type of family, whether family member been infected with COVID-19 on past, highest qualification, total years of clinical experience, years of experience in current hospital, designation, type of organization, number of months worked in COVID-19 units, area of work, infected with COVID-19, practice of relaxation techniques, breathing exercises, mindfulness based activities (yoga, meditation etc.) regularly.

Section 2: Findings as per objectives of the study

Objective 1: To assess the resilience among nurses who work in dedicated COVID hospital.

Resilience of nurses were assessed by modified Conner-Davidson resilience scale consists of 25 items code on the five point Likert scale with 0- not true at all and 4- truly nearly all the time, these rating result in a number between 0 to 100 and higher score indicate higher resilience.

Part 1: To assess the resilience among nurses who worked in COVID dedicated hospital.

Table 2: The level of resilience among nurses who have worked in COVID dedicated hospital.

Resilience %	Frequency (Percentage)
High Resilience >85 %	34 (27.42%)
Moderate Resilience	60 – 80 %
Low Resilience <60 %	42 (33.87%)

As depicted in Table No. 02, majority of nurses *i.e.* 38.71% have moderate resilience, whereas 33.87% nurses have low resilience and only 27.42% nurses have high resilience who have worked in COVID dedicated hospitals.

Part 2: To assess the resilience among nurses who have worked in Non-COVID dedicated hospital.

Table 3: The level of resilience among nurses in Non-COVID dedicated hospital.

Resilience %	Frequency (Percentage)
High Resilience >85%	17 (22.37%)
Moderate Resilience 60-80%	27 (35.52%)
Low Resilience <60%	32 (42.11%)

As depicted in the Table No 03, majority of nurses (42.11%) have low resilience, 35.52% nurses have moderate resilience and only 22.37% nurses have high resilience.

Objective 2: To determine the self-efficacy among nurses who worked in dedicated COVID hospital vs Non-COVID hospital.

Self-efficacy is the ability of nurses to maintain balance between her life and workplace from various ups and downs and also the capacity to adapt new changes and challenges as measured by Nursing Care Self-Efficacy Scale (NCSES).

Part 1: To assess the self-efficacy among nurses who worked in COVID dedicated hospital.

Table 4: The level of self-efficacy among nurses who have worked in COVID dedicated hospital.

Self-Efficacy %	Frequency (Percentage)
High > 85%	56 (45.16%)
Moderate 60 – 80%	35 (28.22%)
Low < 60%	33 (26.61%)

As depicted in the Table 04, majority of nurses (45.16%) have high self-efficacy, whereas 28.22% nurses have moderate self-efficacy and only 26.61% nurses have low self-efficacy who have worked in COVID dedicated hospital.

PART 2: To assess the self-efficacy among nurses who have worked in Non-COVID dedicated hospital.

Table 5: The level of self-efficacy among nurses who have worked in Non-COVID dedicated hospital.

Self-Efficacy %	Frequency (Percentage)
High >85%	23 (30.26%)
Moderate 60 – 80%	40 (52.63%)
Low <60%	13 (17.10%)

As depicted in the Table 05, majority of nurses (52.63%) have moderate self-efficacy whereas 30.26% nurses have high self-efficacy and only 17.10% nurses have low self-efficacy who have worked in Non-COVID dedicated hospital.

Objective 3: To compare the resilience and self-efficacy among nurses who worked in dedicated COVID hospital vs Non-COVID hospital.

Resilience is defined as the ability to face adverse situations while remaining focused and optimistic for the future whereas self-efficacy reflects a sense of confidence in individual's capacity to achieve tasks. Resilience of nurses were assessed by Conner-Davidson resilience scale whereas self-efficacy was measured by Nursing Care Self-Efficacy Scale (NCSES).

Table 6: The level of resilience and self-efficacy among nurses who have worked in COVID vs Non-COVID dedicated hospital.

		COVID	Non-COVID
		Frequency (Percentage)	Frequency (Percentage)
Self-efficacy	High > 85%	56 (45.16%)	23 (30.26%)
	Moderate 60 – 80%	35 (28.22%)	40 (52.63%)
	Low < 60%	33 (26.61%)	13 (17.10%)
Resilience	High >85%	34 (27.42%)	17 (22.37%)
	Moderate 60 – 80%	48 (38.71%)	27 (35.52%)
	Low <60%	42 (33.87%)	32 (42.11%)

Comparison of resilience and self-efficacy among COVID and Non-COVID dedicated hospitals

RESULTS

Resilience of nurses who have worked in COVID dedicated hospital is more than that of nurses who have worked in Non-COVID dedicated hospital. Resilience is high in nurses (27.42%) who have worked in COVID dedicated hospital than nurses (22.37%) who have worked in Non-COVID dedicated hospital; resilience is moderate in nurses (38.71%) who have worked in COVID dedicated hospital than nurses (35.52%) who have worked in Non-COVID dedicated hospital and resilience is low in nurses (33.87%) who have worked in COVID dedicated hospital than nurses (42.11%) who have worked in Non-COVID dedicated hospital.



Fig. 1: Comparison of resilience and self-efficacy among COVID and Non- COVID dedicated hospitals.

Self-efficacy is high in nurses (45.16%) who have worked in COVID dedicated hospital than that of nurses (30.26%) who have worked in Non-COVID dedicated hospital; self-efficacy is moderate in nurses (28.22%) who have worked in COVID dedicated hospital than that of nurses (52.63%) who have worked in Non-COVID dedicated hospital and self-efficacy is low in nurses (26.61%) who have worked in COVID dedicated hospital than that of nurses (17.10%) who have worked in Non-COVID dedicated hospital.

Limitation

- Study was limited to 220 sample.
- Data collection was done online.

RECOMMENDATION

- The study can be replicated with large sample size for better generalization.
- A study can be conducted for assessing the correlation of resilience and self-efficacy

efficiency among nurses.

- A comparative study can be done to assess self-efficacy among nurses working in different wards.
- A comparative study can be done to assess resilience among nurses working in different ward.

CONCLUSION

As this study indicates that knowledge and attitude go hand in the selected area of interest. Further it was concluded that there were various factors and sociodemographic variables having an impact on the knowledge and attitude with regard to self-efficacy of the nurses who have worked in COVID and Non-COVID dedicated hospitals.

Consent For Publication: Not applicable

Funding: No funding done

Acknowledgement: I would like to thank Neha Nidhi & Moomal, who contributed in this study.

REFERENCES

1. Cucinotta D, Vanelli M. WHO Declares COVID-19 a Pandemic. *Acta Biomed.* 2020 Mar 19;91(1):157-160. doi: 10.23750/abm.v91i1.9397. PMID: 32191675; PMCID: PMC7569573.
2. Xu X, Chen P, Wang J, et al. Evolution of the novel coronavirus from the ongoing Wuhan outbreak and modeling of its spike protein for risk of human transmission. *Sci China Life Sci.* 2020;63(3):457-460. doi: 10.1007/s11427-020-1637-5.
3. Jun, J., Tucker, S., & Melnyk, B. M. (2020). Clinician mental health and well being during global healthcare crises: Evidence learned from prior epidemics for COVID 19 Pandemic. *Worldviews on Evidence Based Nursing*, 17(3), 182-184. 10.1111/wvn.12439.
4. Yörük, S., & Güler, D. (2020). The relationship between psychological resilience, burnout, stress, and sociodemographic factors with depression in nurses and midwives during the COVID 19 pandemic: A cross sectional study in Turkey. *Perspectives in Psychiatric Care*, 57(1), 390-398. 10.1111/ppc.12659
5. Maben J, Bridges J. COVID-19: Supporting nurses' psychological and mental health. *J Clin Nurs.* 2020 Aug;29(15-16):2742-2750. doi: 10.1111/jocn.15307. Epub 2020 Jun 2. PMID: 32320509; PMCID: PMC7264545.
6. Sun, N., Wei, L., Shi, S., Jiao, D., Song, R., Ma, L., Wang, H., Wang, C., Wang, Z., You, Y., Liu, S., & Wang, H. (2020). A qualitative study on the psychological experience of caregivers of COVID 19 patients. *American Journal of Infection Control*, 48(6), 592-598. 10.1016/j.ajic.2020.03.018
7. Wakim, N. (2014). Occupational stressors, stress perception levels, and coping styles of medical surgical RNs: A generational perspective. *The Journal of Nursing Administration*, 44(12), 632-639. 10.1097/NNA.0000000000000140
8. Hart, P. L., Brannan, J. D., & De Chesnay, M. (2014). Resilience in nurses: An integrative review. *Journal of Nursing Management*, 22(6), 720-734
9. Huang, L., Wang, Y., Liu, J., Ye, P., Cheng, B., Xu, H., ... Ning, G. (2020). Factors associated with resilience among medical staff in radiology departments during the outbreak of 2019 novel coronavirus disease (COVID 19): A cross sectional study. *Medical Science Monitor*, 26, e925669-925661. 10.12659/MSM.925669
10. Labrague, L. J., & De Los Santos, J. A. A. (2020). COVID 19 anxiety among front line nurses: Predictive role of organisational support, personal resilience and social support. *Journal of Nursing Management*, 28(7), 1653-1661. 10.1111/jonm.13121
11. Yörük, S., & Güler, D. (2020). The relationship between psychological resilience, burnout, stress, and sociodemographic factors with depression in nurses and midwives during the COVID 19 pandemic: A cross sectional study in Turkey. *Perspectives in Psychiatric Care*, 57(1), 390-398. 10.1111/ppc.
12. Bandura A. Self-efficacy: toward a unifying theory of behavioral change. *Psychol Rev.* 1977;84:191-215.
13. Hsieh YH, Wang HH, Ma SC. The mediating role of self-efficacy in the relationship between workplace bullying, mental health and an intention to leave among nurses in Taiwan. *Int J Occup Med Environ Health.* 2019;32(2):245-254.
14. Yu F, Raphael D, Mackay L, Smith M, King A. Personal and work-related factors associated with nurse resilience: a systematic review. *Int J Nurs Stud.* 2019;93:129-140.
15. Consiglio C, Borgogni L, Vecchione M, Maslach C. Self-efficacy, perceptions of context, and burnout: a multilevel study on nurses. *La Medicina del lavoro.* 2014;105(4):255-268.
16. Schwarzer R, Mueller J, Greenglass E. Assessment of perceived general self-efficacy on the internet: data collection in cyberspace. *Anxiety Stress Copin.* 1999;12(2):145-161.
17. Wang CK, Hu ZF, Liu Y. The reliability and validity of general self-efficacy scale. *Chinese J Appl Psychol.* 2001;7(1):37-40.
18. Ho SMY, Kwong-Lo RSY, Mak CWY, Wong JS. Fear of severe acute respiratory syndrome (SARS) among health care workers. *J Consult Clin Psychol.* 2005;73(2):344-349.
19. Lee J, Kang SK. Factors influencing nurses' intention to care for patients with emerging infectious diseases: application of the theory of planned behavior. *Nurs Health Sci.* 2020;22:82-90.
20. Natan MB, Zilberstein S, Alaev D. Willingness of future nursing workforce to report for duty during an avian influenza pandemic. *Res Theory Nurs Pract.* 2015;29(4):266-275.
21. Feist, J., C. Feist, and P. Cipriano. 2020. Stigma Compounds the Consequences of Clinician Burnout During COVID-19: A Call to Action to Break the Culture of Silence. *NAM Perspectives. Commentary*, National Academy of Medicine, Washington, DC. <https://doi.org/10.31478/202008b>
22. Ren C, Zhou D, Fan Y, Li B, Zhang W, Shen Y, Yu S, Jiang L, Yu F, Duan Y, Peng D, Cheng X, Wu L, Wu C, Ye D. Prevalence and influencing factors of anxiety and depression symptoms among surgical nurses during COVID-19 pandemic: A large-scale cross-sectional study. *Nurs Open.* 2022 Jan;9(1):752-764. doi: 10.1002/nop.2.1127. Epub 2021 Nov 16. PMID: 34784442; PMCID: PMC8661822.
23. Xu H, Stjernswärd S, Glasdam S. Psychosocial experiences of frontline nurses working in hospital-based settings during the COVID-19 pandemic - A

- qualitative systematic review. *Int J Nurs Stud Adv*. 2021 Nov;3:100037. doi: 10.1016/j.ijnsa.2021.100037. Epub 2021 Jul 17. PMID: 34308373; PMCID: PMC8285218.
24. Burstyn I, Holt K. A Cross-Sectional Survey of the Workplace Factors Contributing to Symptoms of Anxiety and Depression Among Nurses and Physicians During the FirstWave of COVID-19 Pandemic in Two US Healthcare Systems. *Ann Work Expo Health*. 2022 Mar 15;66(3):312-333. doi: 10.1093/annweh/wxab085. PMID: 34590682; PMCID: PMC8500032.
25. Nowicki GJ, Ślusarska B, Tucholska K, Naylor K, Chrzan-Rodak A, Niedorys B. The Severity of Traumatic Stress Associated with COVID-19 Pandemic, Perception of Support, Sense of Security, and Sense of Meaning in Life among Nurses: Research Protocol and Preliminary Results from Poland. *Int J Environ Res Public Health*. 2020 Sep 7;17(18):6491. doi: 10.3390/ijerph17186491. PMID: 32906590; PMCID: PMC7559728.
26. Sperling D. Ethical dilemmas, perceived risk, and motivation among nurses during the COVID-19 pandemic. *Nurs Ethics*. 2021 Feb;28(1):9-22. doi: 10.1177/0969733020956376. Epub 2020 Oct 1. PMID: 33000673; PMCID: PMC7533465.
27. Sperling D. Nurses' challenges, concerns and unfair requirements during the COVID-19 outbreak. *Nurs Ethics*. 2021 Nov-Dec;28(7-8):1096-1110. doi: 10.1177/09697330211005175. Epub 2021 May 4. PMID: 33942658; PMCID: PMC8641031.
28. Cho KH, Kim B. The Psychological Responses of Nurses Caring for COVID-19 Patients: A Q Methodological Approach. *Int J Environ Res Public Health*. 2021 Mar 31;18(7):3605. doi: 10.3390/ijerph18073605. PMID: 33807138; PMCID: PMC8037924.
29. Ali SAA, Diab SSEM, Elmahallawy EK. Exploring the Psychological Stress, Anxiety Factors, and Coping Mechanisms of Critical Care Unit Nurses During the COVID-19 Outbreak in Saudi Arabia. *Front Public Health*. 2021 Nov 26;9:767517. doi: 10.3389/fpubh.2021.767517. PMID: 34900913; PMCID: PMC8661107.
30. Tamrakar P, Pant SB, Acharya SP. Anxiety and depression among nurses in COVID and Non-COVID intensive care units. *Nurs Crit Care*. 2021 Sep 28;10.1111/nicc.12685. doi: 10.1111/nicc.12685. Epub ahead of print. PMID: 34580949; PMCID: PMC8662271.
31. Liu Y, Long Y, Cheng Y, Guo Q, Yang L, Lin Y, Cao Y, Ye L, Jiang Y, Li K, Tian K, A X, Sun C, Zhang F, Song X, Liao G, Huang J, Du L. Psychological Impact of the COVID-19 Outbreak on Nurses in China: A Nationwide Survey During the Outbreak. *Front Psychiatry*. 2020 Dec 11;11:598712. doi: 10.3389/fpsyt.2020.598712. PMID: 33362609; PMCID: PMC7759517.
32. Nourollahi-Darabad M, Afshari D, Chinisaz N. Psychosocial Factors Associated With Resilience Among Iranian Nurses During COVID-19 Outbreak. *Front Public Health*. 2021 Aug 4;9:714971. doi: 10.3389/fpubh.2021.714971. Erratum in: *Front Public Health*. 2021 Sep 30;9:772559. PMID: 34422753; PMCID: PMC8373242.
33. Jose S, Dhandapani M, Cyriac MC. 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 J Crit Care Med*. 2020 Nov;24(11):1081-1088. doi: 10.5005/jp-journals-10071-23667. PMID: 33384515; PMCID: PMC7751034.
34. Jamebozorgi MH, Karamoozian A, Bardsiri TI, Sheikhbardsiri H. Nurses Burnout, Resilience, and Its Association With Socio-Demographic Factors During COVID-19 Pandemic. *Front Psychiatry*. 2022 Jan 14;12:803506. doi: 10.3389/fpsyt.2021.803506. PMID: 35095618; PMCID: PMC8795765.
35. Hou T, Yin Q, Xu Y, Gao J, Bin L, Li H, Cai W, Liu Y, Dong W, Deng G, Ni C. The Mediating Role of Perceived Social Support Between Resilience and Anxiety 1 Year After the COVID-19 Pandemic: Disparity Between High-Risk and Low-Risk Nurses in China. *Front Psychiatry*. 2021 May 24;12:666789. doi: 10.3389/fpsyt.2021.666789. PMID: 34108897; PMCID: PMC8180566.
36. Hoşgör H, Yaman M. Investigation of the relationship between psychological resilience and job performance in Turkish nurses during the COVID-19 pandemic in terms of descriptive characteristics. *J Nurs Manag*. 2022 Jan;30(1):44-52. doi: 10.1111/jonm.13477. Epub 2021 Nov 10. PMID: 34595787; PMCID: PMC8646929.
37. Doo EY, Kim M, Lee S, Lee SY, Lee KY. Influence of anxiety and resilience on depression among hospital nurses: A comparison of nurses working with confirmed and suspected patients in the COVID-19 and Non-COVID-19 units. *J Clin Nurs*. 2021 Jul;30(13-14):1990-2000. doi: 10.1111/jocn.15752. Epub 2021 Mar 23. PMID: 33756003; PMCID: PMC8251069
38. Alameddine M, Clinton M, Bou-Karroum K, Richa N, Doumit MAA. Factors Associated With the Resilience of Nurses During the COVID-19 Pandemic. *Worldviews Evid Based Nurs*. 2021 Dec;18(6):320-331. doi: 10.1111/wvn.12544. Epub 2021 Nov 5. PMID: 34738308; PMCID: PMC8661653.
39. Jo S, Kurt S, Bennett JA, Mayer K, Pituch KA, Simpson V, Skibiski J, Takagi E, Karaaslan MM, Ozluk B, Reifsnider E. Nurses' resilience in the face of coronavirus (COVID-19): An international view. *Nurs Health Sci*. 2021 Sep;23(3):646-657. doi: 10.1111/nhs.12863. Epub 2021 Jul 20. PMID: 34169629; PMCID: PMC8447204.

40. Yang R, Ke Q, Chan SW, Liu Y, Lin H, Li W, Zhu J. A cross-sectional examination of the relationship between nurses' experiences of skin lesions and anxiety and depression during the COVID-19 pandemic: Exploring the mediating role of fear and resilience. *J Nurs Manag.* 2022 Apr 17;10.1111/jonm.13638. doi: 10.1111/jonm.13638. Epub ahead of print. PMID: 35434883; PMCID: PMC9115287.
41. Labrague LJ, De Los Santos JAA. COVID-19 anxiety among front-line nurses: Predictive role of organisational support, personal resilience and social support. *J NursManag.* 2020 Oct;28(7):1653-1661. doi: 10.1111/jonm.13121. Epub 2020 Aug 21. PMID: 32770780; PMCID: PMC7436313.
42. Jiang W, Yuan Y, Zhang L. Self-Efficacy and Research Capacity of Clinical Nurses in China. *J Contin Educ Nurs.* 2019 Nov 1;50(11):509-516. doi: 10.3928/00220124-20191015-07. PMID: 31644812.
43. Shahrour G, Dardas LA. Acute stress disorder, coping self-efficacy and subsequent psychological distress among nurses amid COVID-19. *J Nurs Manag.* 2020 Oct;28(7):1686-1695. doi: 10.1111/jonm.13124. Epub 2020 Aug 30. PMID: 32767827; PMCID: PMC7436502.
44. Simonetti V, Durante A, Ambrosca R, Arcadi P, Graziano G, Pucciarelli G, Simeone S, Vellone E, Alvaro R, Cicolini G. Anxiety, sleep disorders and self-efficacy among nurses during COVID-19 pandemic: A large cross-sectional study. *J Clin Nurs.* 2021 May;30(9-10):1360-1371. doi: 10.1111/jocn.15685. Epub 2021 Feb 15. PMID: 33534934; PMCID: PMC8012992.
45. Garcia AS, Carotta CL, Brown R, Da Rosa P, Pravecek B, Carson P. Parenting stress, self-efficacy and COVID-19 health risks as predictors of general stress among nurses. *Int J Nurs Pract.* 2021 Dec;27(6):e13009. doi: 10.1111/ijn.13009. Epub 2021 Aug 17. PMID: 34402555; PMCID: PMC8420594.
46. Kim JS, Kim J, Gelegamts D. Knowledge, attitude and self-efficacy towards palliative care among nurses in Mongolia: A cross-sectional descriptive study. *PLoS One.* 2020 Jul 23;15(7):e0236390. doi: 10.1371/journal.pone.0236390. PMID: 32702007; PMCID: PMC7377
47. Soudagar S, Rambod M, Beheshtipour N. Factors associated with nurses' self-efficacy in clinical setting in Iran, 2013. *Iran J Nurs Midwifery Res.* 2015 Mar-Apr;20(2):226-31. PMID: 25878701; PMCID: PMC4387648.
48. Mo Y, Deng L, Zhang L, Lang Q, Pang H, Liao C, Wang N, Tao P, Huang H. Anxiety of Nurses to support Wuhan in fighting against COVID-19 Epidemic and its Correlation With Work Stress and Self-efficacy. *J Clin Nurs.* 2021 Feb;30(3-4):397-405. doi: 10.1111/jocn.15549. Epub 2020 Nov 22. PMID: 33141987.
49. Zheng, Z. H., Luo, Z. C., Zhang, Y., Chan, W., Li, J. Q., Pang, J., Jia, Y. L., & Tang, J. (2020). Hospice care self-efficacy among clinical medical staff working in the coronavirus disease 2019 (COVID-19) isolation wards of designated hospitals: a cross-sectional study. *BMC palliative care*, 19(1), 188.
50. Abu Sharour L, Bani Salameh A, Suleiman K, Subih M, El-Hneiti M, Al-Husaami M, Al . Dameery K, Al Omari O. Nurses' Self-Efficacy, Confidence and Interaction With Patients With COVID-19: A Cross-Sectional Study. *Disaster Med Public Health Prep.* 2021 Jan 7:1-5. doi: 10.1017/dmp.2021.1. Epub ahead of print. Erratum in: *Disaster Med Public Health Prep.* 2021 Aug 18;1. PMID: 33407968; PMCID: PMC8007953.
51. Molero Jurado MDM, Pérez-Fuentes MDC, Oropesa Ruiz NF, Simón Márquez MDM, Gázquez Linares JJ. Self-Efficacy and Emotional Intelligence as Predictors of Perceived Stress in Nursing Professionals. *Medicina (Kaunas).* 2019 Jun 1;55(6):237. doi: 10.3390/medicina55060237. PMID: 31159453; PMCID: PMC6630601W