

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

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### Abstract

**Introduction:** Resilience and self-efficacy are important factors in predicting nurses' willingness to take care of patient with emerging infectious disease.<sup>15-16</sup> 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.<sup>7</sup> It refers to the iraction, level of motivation and psychological state.<sup>8</sup> The self-efficacy of nurses is correlated with mental health, resilience and job burnout.<sup>9-11</sup> 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.<sup>17-19</sup> Nurses experienced significant stress and psychological difficulties.<sup>20</sup>

**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%)

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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

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.<sup>3</sup> 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.<sup>5</sup> 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.<sup>6</sup>

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 pilotstudy 8% (i.e., 20). Questionnaire were sent to participants directly via Google form andcollected 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
<b>Age</b>		
20 - 30 years	112	56%
30 - 40 years	65	32%
40 - 50 years	21	11%
50 - 60 years	2	1%
<b>Gender</b>		
Male	88	44%
Female	112	56%
<b>Education</b>		
ANM	7	4%
GNM	28	15%
B.Sc. Nursing	159	78%
M.Sc. Nursing	6	3%
<b>Experience</b>		
0 - 5 years	110	55%
6 - 10 years	61	30%
> 10 years	29	15%
<b>Year of experience in COVID area</b>		
0 month	76	38%
< 12 months	102	51%
>= 12 months	22	11%
<b>Place of posting Ward</b>		
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, whetherfamily member been infected with COVID-19 on past, highest qualification, total yearsof 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.

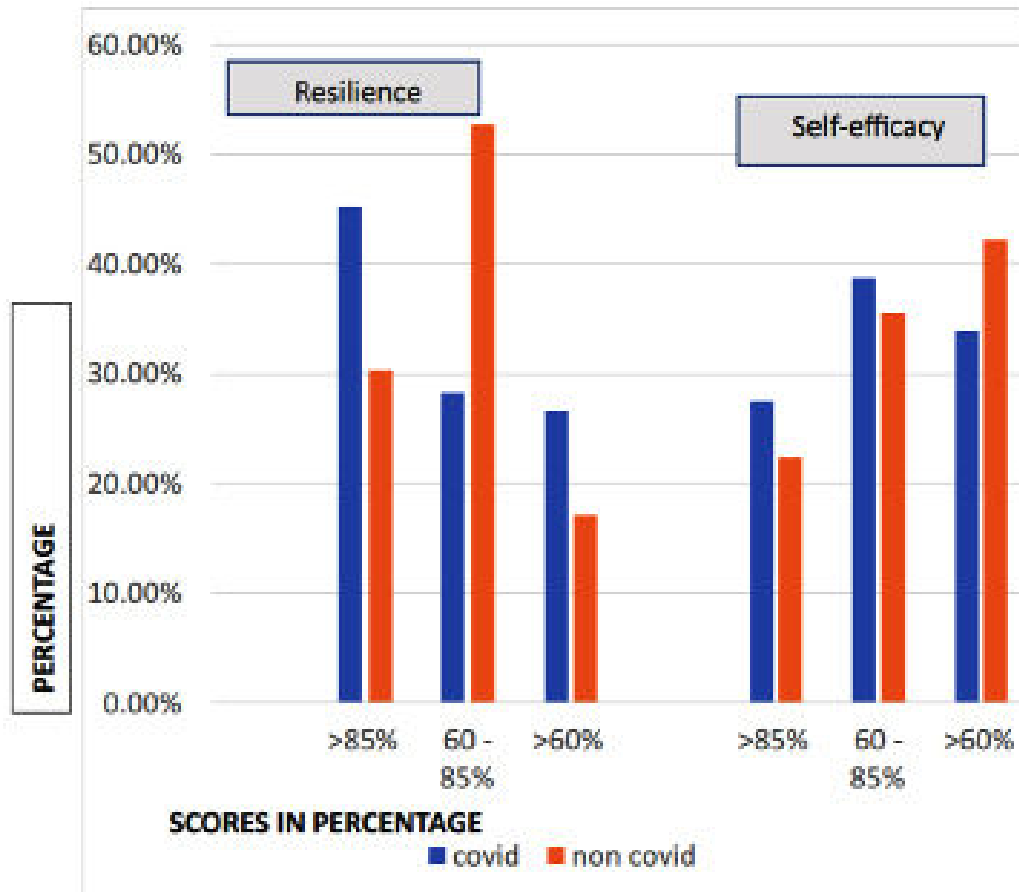


Fig. 1: Comparison of resilience and self-efficacy among COVID and Non- COVID dedicated hospitals.

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.

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