


# Nurses' Resilience During Covid-19 Pandemic: A Scoping Review

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Article information	Abstract
<p><b>Article history:</b> Received: January 04th, 2022 Revised: January 30th, 2022 Accepted: February 10th, 2022</p> <hr/> <p><b>Corresponding author:</b> <b>Suhartini Ismail</b> Address: Jl. Prof. Sudarto No.13, Tembalang, Kecamatan Tembalang, Kota Semarang, Jawa Tengah, Indonesia E-mail: <a href="mailto:suhartini.ismail@fk.undip.ac.id">suhartini.ismail@fk.undip.ac.id</a></p> <hr/> <p>International Journal of Nursing and Health Services (IJNHS) Volume 5, Issue 1, February 20<sup>th</sup>, 2022 <a href="http://doi.org/10.35654/ijnhs.v5i1.566">http://doi.org/10.35654/ijnhs.v5i1.566</a> E-ISSN: 2654-6310</p>	<p><b>Introduction:</b> During the COVID-19 pandemic, nurses should have resilience or durability can respond to complex and depressing situations. <b>Objectives:</b> To sum up nurses' resilience during COVID-19. <b>Methods:</b> This article was written by applying scoping review method. Articles were accessed from science direct, Clinical Key, JStore, EBSCO, and Springer Link databases from March to October 2020. The keywords used were Resilience AND Nurse AND COVID-19 Pandemic. <b>Finding:</b> There were some findings related to nurses' resilience, such as 1) negative resilience, 2) nurses' resilience signs and symptoms such as anxiety, stress, and depression 3) contributing factors such as education, mental health training, adequate knowledge source, confidence in work accomplishment, active and passive coping. <b>Conclusion:</b> Most nurses experience negative resilience with signs and symptoms that lead to stress, depression, anxiety, and fear of some situations, such as the limited personal precaution equipment, the risk of being infected, and the fear of spreading the virus to family and colleagues. <b>Recommendation:</b> Nurses must immediately come up from stress to perform better healthcare for the patients by implementing strategies such as asking for social support from the closest people for further study.</p> <p><b>Keywords:</b> COVID-19 pandemic, resilience nursing</p>
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## INTRODUCTION

During the COVID-19 pandemic, nurses face many challenges, such as working professionally while suppressing the COVID-19 case number in the hospital (1). The challenges could turn into stress which affects nurses' performance. Meanwhile, nurses endure physical and moral burdens in accomplishing their work and avoiding any problems. The problems come from some components, such as colleagues, management, work environment, supervisor, and various patients' condition. Thus nurses are required to endure any conditions(2). Those conditions need nurses to have strength in enduring hardships and challenges. The power is what we call resilience (1).

Resilience or strength refers to responding to difficult and stressful conditions. During the COVID-19 pandemic, nurses have to serve the patients despite conditions and the fear of being infected. Nurses' health is at risk as they work in an extreme situation related to rapid COVID-19 spread, heavy stress, the uncertainty on when the pandemic is over, and the stigma given by the society, which overburdens nurses' endurance. Low resilience leads to negative coping(3).

To cope with stress, nurses must adapt to the existing condition, maintain a healthy mentality, and build psychological strength to keep productivity and perform efficiently and safely to the patients (4). Psychological strength plays a vital role in improving self-strength to fight stress, develop effective coping strategies, set situations better, and give better service to patients (5).

Some previous research showed a different representation of resilience. Thus, in-depth exploration about resilience in nurses during the COVID-19 pandemic is highly required through scoping review, which aims to find out the comprehensive description related to nurses' resilience during the COVID-19 pandemic.

## OBJECTIVE

This scoping review was aimed to summarize the nurses' resilience during the COVID-19 pandemic.

## METHODS

### Design

The method used in this study was scoping review. The framework used by Arksey and O'Malley for scoping review consists of five steps: research question and object, relevant article identification, article selection, data graphic making, arranging, summarizing, and reporting the finding(6). The research question in this research was "How is the representation of nurses' resilience during the COVID-19 pandemic?".

### Databases

Strategy in searching the literature, the data based from science direct, Clinical Key, JStore, EBSCO, and Springer Link were used from March to October 2020.

### Keywords

The keyword used was completed with *Boolean* "OR/AND" with the keyword: Resilience AND Nurse AND COVID-19 Pandemic.

Literature Identification the scoping review, an independent literature search, was done through trusted data based. The retrieved article was then analyzed, especially on the difference and duplication.

Figure 1 explains the identification and article choosing process by using Preferred Reporting Items for Systematic review and Meta-Analyses Extension for Scoping Reviews (PRISMA-SCR) (9).

## RESULTS

Four hundred twenty-six articles were retrieved as the literature were 12 articles from science direct, 86 articles for Clinical Key, 49 articles from EBSCO, 47 articles from JStore, 232 articles from Springer Link. There were 102 same articles from the database, excluding those articles, leaving 324 articles.

Out of 324 articles, 168 articles were excluded as they only include theory, no correlation between abstract and topic, and not an original article. The article screening obtained 138 articles related to resilience explanation were excluded, leaving ten complete articles.

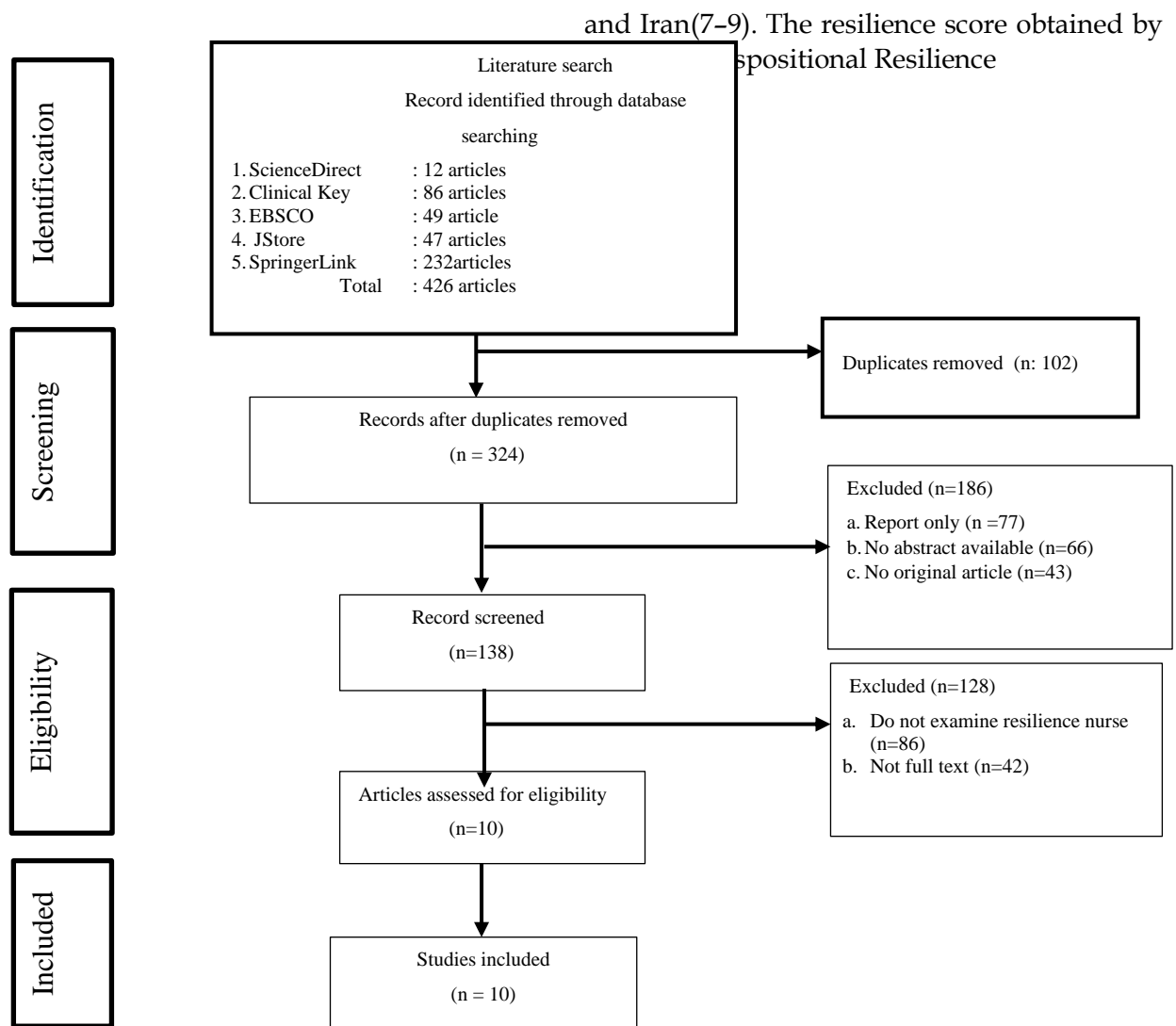


Figure 1. PRISMA Extension for Scoping Reviews (PRISMA-ScR)

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The analysis related to nurses' resilience during the COVID-19 pandemic was done on the ten articles. The population mentioned in the articles consists of healthcare personnel, especially nurses. The articles summarized some findings related to nurses' resilience during the COVID-19 pandemic: negative stability, signs and symptoms, and the factors' strength.

### Theme 1 Negative Resilience

Three studies discussed negative resilience. The studies used quantitative methods conducted in Spain, the Philippines, International Journal of Nursing and Health Services (IJNHS), Volume 5, Issue 1, February 20<sup>th</sup>, 2022

Scale-15 Italian version (DRS-15) showed negative resilience.

On the other hand, research by Barzilay showed some related factors which affect nurses' resilience during the COVID-19 pandemic. The elements were anxiety, worry, and depression. It was found that worry about anxiety and depression was two times increased  $p < 0.001$  with  $OR = 2.23$ , while the improvement was noted by 95%. Brazil also revealed that a high level of anxiety and depression shows low resilience, which is characterized as negative (8).

### Theme 2 Signs and Symptoms

Three studies discussed nurses' signs and symptoms of resilience conducted by Moreno et al. (10,11,17). The studies showed

signs and symptoms of nurses' resilience during the COVID-19 pandemic. Women experienced stress (53.7%) compared to men (35.2%). Men mainly experienced anxiety, 62.7% for men and 36.3% for women. Meanwhile, depression was experienced primarily by women, with 63.37% for women and 37.73% for men. The stress is correlated to overwhelming emotion, exhaustion, depersonalization, and the fear of being infected by the virus. Meanwhile, anxiety is related to overwhelming feelings, exhaustion, depersonalization, the fear of family being infected by the virus, and the stress of living in quarantine to keep the family safe from COVID-19, also associated with anxiety. In addition, depression is also correlated with emotional exhaustion, depersonalization, long 12 to 24 hours shift, on-call shifts, living with people at risk, wearing PPE gear for more than 4 hours, and the worry of spreading COVID-19 to the surrounding people (11).

### **Theme 3 The contributing factors of resilience**

Four studies discussed the factors contributing to resilience, such as education, mental health training, adequate knowledge source, confidence in work accomplishment, active and passive coping. (12,18) Active coping had a positive correlation with active coping ( $p < 0.05$ ), meanwhile, passive coping was correlated to stress ( $p < 0.05$ ), training, and support were the contributing factors of resilience ( $p < 0.05$ ). Positive resilience could protect nurses from anxiety and depression to maintain mental health. This study also revealed the positive correlation between positive coping strategies and vice versa. Nurses implemented positive coping in every change within the workplace to improve resilience and performance during the COVID-19 pandemic (16,17).

## **DISCUSSION**

Resilience is the ability to reduce the effect of any disturbances by anticipating and preparing to endure and come up after any difficulties. Resilience is also correlated to effective coping, depression, anxiety, and exhaustion as the effects of a sudden incident. COVID-19 pandemic is a stressor for all healthcare personnel, especially nurses. Resilience is a protective factor toward nurses'

psychological responses during the COVID-19 pandemic. (11)

In the COVID-19 case, nurses are fully responsible for the patients. However, some worries may be stimulated by prolonged contact with the patient, leading to fear, anxiety, depression, and other psychological responses such as stress. The responses are the effect of the real or immediately perceived threat. Direct contact with COVID-19 patients stimulates anxiety. The anxiety experienced by nurses is the anxious feeling about the possibility of nurses being infected with COVID-19 or unconsciously spreading the virus to others, such as family or the surrounding people. The other source of anxiety is the lack of PPE gear, the fear of storing new coronavirus, the lack of COVID-19 testing kit, the fear of placement in the high-risk area (7,8).

Nurses, especially those who treat COVID-19 patients, must adapt to any changes and immediately come up after any difficulties by implementing more adaptive coping strategies in managing stressors to avoid any unwanted impact such as negative coping. Managing resilience is essential to keep out of negativity which stimulates psychological effects. The psychological impact may affect the performance in providing healthcare. Nurses must improve resilience which further affects thought, emotion, and behavior toward better resilience (9).

Nurses need to strengthen their resilience and coping ability by implementing various strategies. One of the strategies that can be used is social support from colleagues, managers, friends, and family. It could motivate nurses to manage and handle stressful conditions effectively. The support could either reduce the impact of stressors in the workplace or represent a positive correlation between social support and working performance (16).

### **Acknowledgment**

None

### **Conflict of interest**

None

Table 1.1 Matrix of Resilience analysis for nurses during COVID-19 pandemic

No	Author	Title	Objectives	Participant	Research design and participant	Research Result
1	Murat Yildirim, Gokmen Arslan, 2020 (7)	Exploring the Associations Between Resilience, Dispositional Hope, Preventive Behaviors, Subjective Well-Being, and Psychological Health Among Adults During Early Stage of COVID-19	To find out the correlation between resilience, hope, welfare, and psychological health	n = 220 nurses Male= 134 Female=86	Quantitative study with cross-sectional design	<ul style="list-style-type: none"> <li>- Resilience contributed to people hope and behavior by 38%</li> <li>- Positive resilience of healthcare personnel were <math>\beta=56</math>, <math>P&lt;0.01</math></li> </ul>
2	Ran Barzilay, Tyler M. Moore, David M. Greenberg, Grace E. Di Domenico Lily A. Brown, Lauren K. White Ruben C. Gur, Raquel E. Gu, 2020 (8)	Resilience, COVID-19-related stress, anxiety and depression during the pandemic in a large population enriched for healthcare providers	Evaluating covid-19 related stress level	n= 1964 nurses Female= 1964 Male= 1350	Quantitative study	<ul style="list-style-type: none"> <li>- The participants mainly worried about the possibility of the family being infected by COVID-19.</li> <li>- A high level of resilience means a low level of anxiety.</li> </ul>
3	Leodoro J Labrague, Janet De los Santos, 2020 (9)	COVID-19 anxiety among front-line nurses: Predictive role of organizational support, personal resilience, and social support	To find out the influence of personal resilience, social support, organization support to reduce anxiety	n= 325 nurse	Quantitative study with cross-sectional design	<ul style="list-style-type: none"> <li>- Nurses experienced normal resilience with an average scale of 4.19</li> <li>- The social support was at a moderate level of 3.95</li> <li>- The organization support was at an intermediate level of 3.83, and 37.8% of respondents experienced a large scale of anxiety with some symptoms such as paralyzing, sleep disorder, and dizziness.</li> </ul>
4	Monia Vagni, Tiziana M, Valeria G, Daniel Pajardi, 2020 (10)	Hardiness, Stress and Secondary Trauma in Italian Healthcare and Emergency Personnel during the	Measuring healthcare personnel's resilience	n= 236 healthcare personnel consists of nurses, doctors, and psychologists.	Quantitative study with cross-sectional design	<ul style="list-style-type: none"> <li>- Compared to other healthcare personnel, nurses experienced the highest level of stress.</li> <li>- Female nurses experienced a higher level of either emotional or physical stress.</li> </ul>

		COVID-19 Pandemic				
5	Lourdes Luceno Moreno L, Beatris Talavera-Velasco, Yolanda García-Albuerne , Jesus Martín-Garcia , 2020 (11)	Symptoms of Posttraumatic Stress, Anxiety, Depression, Levels of Resilience and Burnout in Spanish Health Personnel during the COVID-19 Pandemic	To analyze post-trauma stress, anxiety, and depression.	n= 1539 healthcare personnel consists of nurses, doctors, midwives, and nutritionists	Quantitative study with cross-sectional design	<ul style="list-style-type: none"> <li>- Stress symptoms appeared 39.6 %</li> <li>- Depression symptoms appeared 39.3 %</li> <li>- Anxiety symptoms appeared 40.2 %</li> </ul>
6	Jing Lin, Yun Hong Ren, Gan, Ying Chen , Yin Fang Huang, Xue Mei You, 2020 (12)	Factors associated with resilience among non-local medical workers sent to Wuhan, China during the COVID-19 outbreak	Analyzing the correlation between resilience with anxiety, depression, and the strategy to cope with resilience	n= 116 healthcare personnel consists of nurses, doctors, and other	Quantitative study with cross-sectional design	<ul style="list-style-type: none"> <li>- Nurses' resilience score was lower (64.86) than doctors' (67.74)</li> <li>- Resilience, active coping, anxiety, and depression were significantly correlated.</li> <li>- Occupation, education, mental health training, preparation, confidence in work accomplishment, anxiety, depression, active coping, and passive coping were factors that contributed to the resilience</li> </ul>
7	Elizabeth M Huffman, Dimitrios I Athanasiadis, Nicolas E Anton, Lindsay A Haskett, Dominique L Doster, Stefanidis Dimitrios, et al., 2020 (13)	How resilient is your team? Exploring healthcare providers' well-being during the COVID-19 pandemic	To find out the pandemic effect on healthcare providers.	n=785 healthcare personnel consists of nurses, doctors, and other	Quantitative study with a survey approach	<ul style="list-style-type: none"> <li>- There were 55.2 % of workers experienced stress during the COVID-19 pandemic.</li> <li>- The fear of spreading the virus to family members is the primary source of stress, with 81.6%</li> <li>- Participants supported by the hospital were 56.4%</li> <li>- Participants supported by their unit were 76,7%</li> </ul>
8	Faruk Bozdog, Naif Ergun, 2020 (14)	Psychological Resilience of healthcare Professionals During COVID-19 Pandemic	To identify healthcare professionals' psychological resilience	n=214 participants consist of 66 doctors, 69 nurses, and 79 other nursing department staff	Quantitative study	<ul style="list-style-type: none"> <li>- Resilience was correlated to life satisfaction, positive influence on social life, preventing the spread of the virus, and sleep quality.</li> <li>- Nurses experienced the lowest resilience level with 17.7%</li> </ul>
9	Xiao-li xu, Li Guangyao, Huang Shunhong, Liu Bin, Zhang	The investigation, Analysis, and Management	To understand the mental resilience and psychosomatic	n=165 participants consist of nurses, doctors, and	Survey	<ul style="list-style-type: none"> <li>- Nurses experienced stressful mental and physical conditions, longer working time, and high-intensity work.</li> </ul>

	Sibling, 2020 (15)	Application of Mental Resilience and Psychosomatic State of The Healthcare Team Against COVID-19	status of the healthcare team.	other healthcare personnel		- Nurses tended to experience difficulties in working by 20.5%, compared to doctors with a proportional number of 37.2%
10	Tulay Kilinc, Asli Sis Celik, 2020 (16)	Relationship between the social support and psychological resilience levels perceived by nurses during the COVID-19 pandemic: A study from Turkey	To find out the correlation between social support and psychological resilience in nurses	n= 720 nurses	Quantitative study with cross-sectional design	- Nurse with 16 years of working experience had higher resilience - Nurses' resilience was categorized as good according to Connor Davidson's scale, which was 64.28

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