



NURSE'S POST-TRAUMATIC GROWTH DURING THE COVID-19 PANDEMIC IN HOSPITAL SETTINGS: LITERATURE REVIEW

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ABSTRACT

Introduction: The condition of the Covid 19 Pandemic affects the trauma of nurses so in their efforts to survive in nursing services it is important to explain in this study. **Purpose:** This study aims to analyze Post Traumatic Growth in nurses during the Covid-19 pandemic and post-traumatic growth subscriptions during the Covid-19 pandemic in the Hospital. **Methods:** Literature Review using three electronic databases such as PubMed, Science Direct and Google Scholar. The quality of the above articles is assessed based on JBI and MMAT. **Result:** A total of 2,614,019 articles were identified. Fifteen articles that have been analyzed found factors that influence Post Traumatic Growth including Age, gender, education, workload, gender and fear due to transmission of Covid-19. Hospitals must have good Post Traumatic Growth management so that nurses who have experienced trauma during a pandemic experience a faster post traumatic growth phase so they can positively assess the trauma they have experienced. Family support, social support are predictors for accelerating post-traumapost-traumaticDiscussion It is important to implement Post Traumatic Growth (PTG) management for nurses to achieve survival in the face of the Covid 19 pandemic crisis. **Conclusion:** . Post traumatic growth will be used as a hospital evaluation for all health workers, especially nurses who have experienced trauma related to their work environment to improve nurse performance.

Keywords: Post Traumatic Growth, Hospital, Nurse, Covid-19

INTRODUCTION

Since January 30, 2020, the World Health Organization (WHO) has determined that Corona Covid-19 Virus Infection has become a global pandemic that calls for a Global Public Health Emergency (WHO 2020) . The Covid-19 pandemic has caused global health and mental health problems for nurses as the frontline in health services. Cases are increasing every day, forcing medical personnel or health care harder to treat Covid-19 patients where this situation very stressful (Chen et al, 2020) . This also has Handoko, et al (2023)

animpact on the physical and psychological safety and health of health service providers. Various studies have revealed the negative psychological impact of the Covid-19 pandemic on health service providers. For example, more than 40% of health care that they display symptoms of anxiety; more than 46% had reported depressi32% reported insomnia, and 69% had high levels of stress (Huang et al, 2020). Nurses are the front line in the health system in any case (WHO, 2020) .

Nurses who treat Covid-9 patients are a group with a very high risk of exposure.



As the front line, nurses must deal directly with patients infected with Covid-19. Nurses account for 75% of medical personnel who are directly assigned to treat each patient infected with Covid-19 (Kang et al, 2020) . Mental health problems are also reported to affect the attention, understanding, decision-making, and ability of health workers and prolonged fatigue, leading to an increased risk of infection (Kang et al, 2020) . In the Covid-19 pandemic, the workload of nurses is greater than before the pandemic, this increased stress on nurses which can interfere with their mental health (Jennifer et al., 2021)

In a study conducted by During states that the attitudes of nurses who are survivors of Covid-19 towards post traumatic growth include: changing lifestyles in maintaining health, nurses tend to have better spirituality than before, and in providing nursing care services for nurses optimize the use of personal protective equipment (PPE).

METHODS

This study uses a literature review method. Articles that have been collected

Table 1. Database Link

Database	Database Link
PubMed	https://pubmed.ncbi.nlm.nih.gov/
Sciencedirect	https://www.sciencedirect.com/
Google Scholar	https://scholar.google.co.id/

Search Strategy

In a literature search, the keywords used are combined with Boolean operators to get more specific results and make it easier to select relevant articles (Aliyu, 2017) . The keywords are (*Post Traumatic Growth*) AND (*Hospital*) AND (Nurse) AND (*Covid 19*) From the results of researching articles through three databases with the help of Boolean Operators, researchers found 2,614,019 articles that matched these keywords, consisting of 27

and passed the selection are then assessed and summarized. Then proceed with drawing conclusions by including research topics to ensure the study is useful for the reader.

Inclusion criteria

This literature review uses the following inclusion criteria: 1) the article contains the results of research on nurses' strategies in conducting cross-cultural communication with clients in hospitals; 2) a single study employing a quantitative , qualitative, or mixed methods post-traumatic study population included nurses ; 4) research available in full text articles ; 5) articles published between January 2018 and December 2023 ; and 6) articles written in English. The exclusion criteria were: 1) articles using literature review, systematic review, or scoping study ; 2) duplication of publications in two or more journals.

Databases

The databases used include PubMed, Science Direct, Google Scholar, and ProQuest. All databases were accessed by researchers on 26 April 2023. The following is a list of database links:

articles on PubMed, 13,992 articles on Science Direct, and 2,600,000 articles on Google Scholar .

Article Screening

This study uses the PRISMA flowchart which includes identification, screening, eligibility, and ScienceDirect. The screening procedure begins by excluding duplicate articles; filter articles by title and abstract that are relevant to the topic; eliminating articles with a literature

review design, scoping review, and systematic review; remove articles with the same title and author either in the same database or in different databases; and filter articles in full text.

Data Extraction and Critical Assessment

The literature review used The Joanna Briggs Institute (JBI) Critical Appraisal Tools 2020, which is common for cross-sectional studies. This study also used the 2018 Mixed Methods Appraisal Tool (MMAT). Assessment of article quality was assisted by a validator (Nursalam et al., 2020). The researcher presents the articles in a table which includes identity number, author and journal identity, journal title, research objectives, population and sample, method, and summary of results. The ID number contains the special identity of the journal given by the researcher to differentiate it from other journals.

RESULTS

Search result

Researchers used three main search platforms in this study: PubMed, Science Direct, and Google Scholar. At the identification stage, 2,614,019 articles were found from all databases. After that, articles are pre-filtered to include only articles published in 2018-2023, available as full text articles, and written in English. These criteria finally sorted 250,892 articles. The researcher conducted further screening regarding article titles and abstracts that were considered relevant to the topic and eliminated articles using a literature review design. Duplicate articles are also excluded at this stage. This further screening included 45 articles which were then read for further examination of the exclusion criteria. After reading, 15 articles were submitted for final review. The entire PRISMA procedure is shown in the flowchart below.

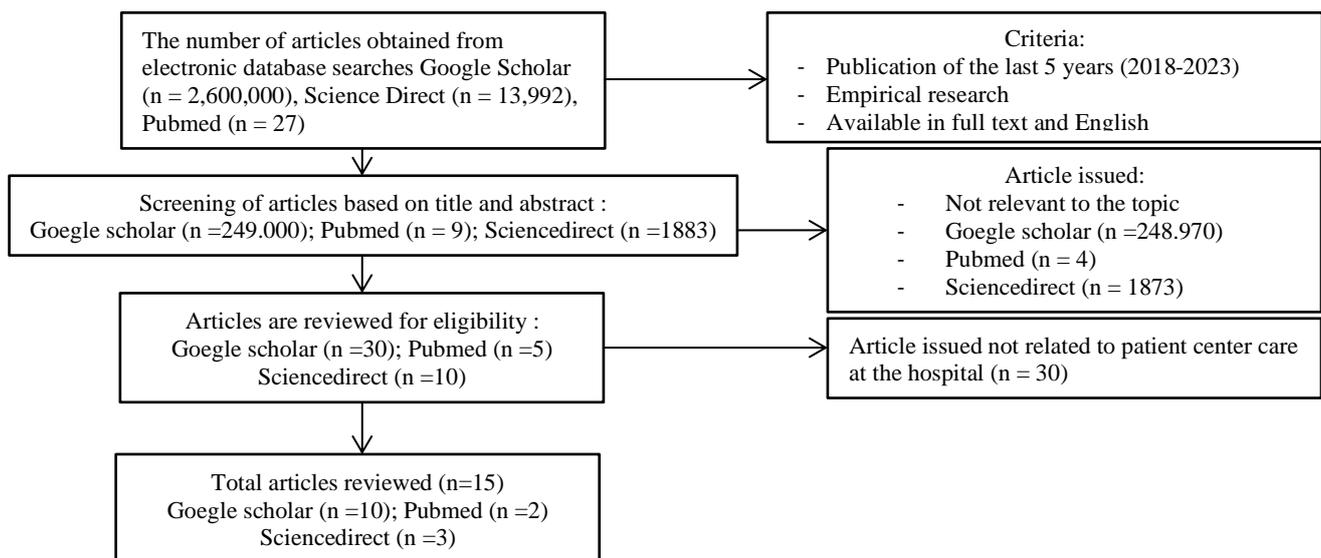


Figure 1. Prism Diagram



Critical Assessment Results

The initial critical assessment was carried out independently by two reviewers. Discussions were conducted to moderate differences in judgment before reaching a final critical justification. In this study, The

Joanna Briggs Institute (JBI) Critical Appraisal Tools version 2020 was used to review qualitative studies (n=4) The assessment sectional studies (n=11). The following table displays the results of the critical assessment.

Table 2. Accumthatd Critical Assessment of Articles

No. ID	title	Criteria										mark
		1	2	3	4	5	6	7	8	9	10	
JBI Cross-sectional study												
C1	The interaction effect between gender and profession in posttraumatic growth among hospital personnel	✓	✓	✓	✓	-	-	✓	✓	✓	✓	8 0%
C2	Workplace Violence and Its Effects on Burnout and Secondary Traumatic Stress among Mental Healthcare Nurses in Japan	✓	✓	✓	✓	-	-	✓	✓	✓	✓	8 0%
C3	Correlates of post-traumatic growth among nursing professionals: A cross-sectional analysis	✓	✓	✓	✓	-	-	✓	✓	✓	✓	8 0%
C4	Association of Nursing Work Environment, Relationship with the Head Nurse, and Resilience with Post-Traumatic Growth in Emergency Department Nurses	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10 0%
C5	The Role of Healthcare Professionals' Passion in Predicting Secondary Traumatic Stress and Posttraumatic Growth in the Face of COVID-19: A Longitudinal Approach	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10 0%
C6	Predictors of posttraumatic growth of intensive care unit nurses in Korea	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10 0%
C7	Post-Traumatic Growth of Nurses in COVID-19 Designated Hospitals in Korea	✓	✓	✓	✓	-	-	✓	✓	✓	✓	8 0%
C8	Factors influencing posttraumatic growth among nurses caring for COVID-19 patients: A path analysis	✓	✓	✓	✓	-	-	✓	✓	✓	✓	8 0%
C9	Post-traumatic Growth and Influencing factors among	✓	✓	✓	✓	-	-	✓	✓	✓	✓	8 0%



No. ID	title	Criteria										mark
		1	2	3	4	5	6	7	8	9	10	
JBIC Cross-sectional study												
	frontline nurses fighting against COVID-19											
C10	Post-traumatic Growth Level and Its Influencing Factors Among Frontline Nurses During the COVID-19 Pandemic	✓	✓	✓	✓	-	-	✓	✓	✓	✓	80%
C11	Post-Traumatic Growth of Nurses Who Faced The Covid-19 Epidemic and its correlation with professional self-identity and social support	✓	✓	✓	✓	-	-	✓	✓	✓	✓	80%
Qualitative study												
C12	Nurses' perception of posttraumatic growth (PTG) after natural disasters	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	90%
C13	Posttraumatic growth and positive determinants in nursing students after COVID - 19 alarm status: A descriptive cross - sectional study	✓	✓	✓	✓	-	-	✓	✓	✓	✓	80%
C14	Predictors of Post-Traumatic Growth in a Sample of United Kingdom Mental and Community Healthcare Workers during the COVID-19 Pandemic	✓	✓	✓	✓	-	-	✓	✓	✓	✓	80%
C15	Religious Beliefs, Work Motivation, Risk Perception and Posttraumatic Growth in Healthcare Workers during COVID-19	✓	✓	✓	✓	-	-	✓	✓	✓	✓	80%

Articles Included in the Literature Review

The results of the initial analysis, review,

and further identification finally contained only 15 articles. The following table describes the details of each article.

Table 1. Article Review Results

ID Number	Writer	Journal Title	objective	Population and sample	Study method	Results and Discussion
C1	(Kuipers et al., 2019)	The interaction effect between gender and profession in posttraumatic growth among hospital personnel	To find out whether there is an interaction effect between gender (male and female) and profession (nurses and doctors) on	The sample for this study were 128 nurses and 78 doctors	Cross-sectional	The results of the study found that there was a relationship between gender and PTG where women had a higher post-traumatic level than men



ID Number	Writer	Journal Title	objective	Population and sample	Study method	Results and Discussion
			post-traumatic growth (PTG).			
C2	(Yudai Kobayashi et al, 2020)	Workplace Violence and Its Effects on Burnout and Secondary Traumatic Stress among Mental Healthcare Nurses in Japan	To find out the relationship between work violence and mental health among nurses and doctors at the Japanese Psychiatric Hospital	599 mental health nurses (including nursing assistants) from eight hospitals.	Cross-sectional	Our results suggest that WPV is a long-term stressor Longitudinal study measurements WPV severity and frequency, work and non-work stress, risk factors, and protective necessary factors, such as the development of programs that help reduce the psychological burden mental health nurse because of WPV
C3	(Chizimuzo et al, 2020)	Correlates of post-traumatic growth among nursing professionals: A cross-sectional analysis	To examine (a) self-reported traumatic experiences, (b) differences in post-traumatic growth (i.e. positive psychological growth after experiencing a traumatic event) by the professional level of nursing and (c) covariates of demographic, work-related, behavioral, and traumatic experiences post-traumatic growth.	299 Nurse	Cross-sectional	Advanced practice nurses and clinical nurses reported higher rates of workplace trauma, compared to nursing assistants. Higher post-traumatic growth score is associated with have a postgraduate degree . Lower post-traumatic growth score associated with being married/widowed, being an advanced practice provider or clinical nurse, working in an intensive care unit and reporting workplace, family/ private stress and undisclosed trauma
C4	(Sun-Young Jung and Jin-Hwa Park, 2021)	Association of Nursing Work Environment, Relationship with the Head Nurse, and Resilience with Post-Traumatic Growth in Emergency Department Nurses	examines the relationship between the nursing work environment, the relationship with the head nurse, resilience, and post-traumatic growth among emergency nurse. Data was collected from December 2018 to February 2019	127 nurses working in the emergency department	Cross-sectional	Post-traumatic growth showed a statistically significant difference according to age in emergency department nurses. Self-reliance is the most significant variable. The findings support that intervention programs should be developed to encourage positive relationship with the head nurse and increased resilience in the emergency department nurse.
C5	(Jennifer E. et al., 2021)	The Role of Healthcare Professionals' Passion in Predicting Secondary Traumatic Stress and Posttraumatic	To find out the Role of Health Worker Enthusiasm in Predicting Secondary Traumatic Stress and Post-traumatic Growth	172 health professionals	Cross-sectional	The results reveal that workload and fear of transmission are positive predictors for STS, Fear of second-time transmission appears to positively predict post- traumatic recovery lack of staff/PPE, because post-traumatic recovery is higher when the workload is high, especially in those who have experienced trauma . Taken together, these findings indicate a need for



ID Number	Writer	Journal Title	objective	Population and sample	Study method	Results and Discussion
		Growth in the Face of COVID-19: A Longitudinal Approach	in Facing COVID-19			precautionary measures protect these professionals from negative long-term consequences.
C6	(Ae Kyung Chang, & Hyejin Yoon, 2021)	Predictors of posttraumatic growth of intensive care unit nurses in Korea	to assess post-traumatic growth rates and psycho relationship such as post-traumatic stress symptoms, intentional contemplation, wisdom, and compassion to predict post-traumatic growth Korean intensive care unit nurse	A total of 156 intensive care unit nurses participated	Cross-sectional	Post-traumatic growth was found to be relatively low in intensive care unit nurses, while statistical tests showed that positive self-compassion was the most significant predictor of post-traumatic growth. followed by wisdom, age, and deliberate contemplation.
C7	(Han & , Ji-Young Chun, 2023)	Post-Traumatic Growth of Nurses in COVID-19 Designated Hospitals in Korea	To find out the Growth of Post-Traumatic Nurses in COVID-19 Hospital in Korea	250 nurses in 3 hospitals in South Korea	Cross-sectional	Significant factors influencing PTG include: marriage, religion, self-disclosure, meaning in life, and resilience. Conclusion: When a new infectious disease emerges, it is necessary to develop programs that can encourage and help nurses find and pursue meaning in life, and enhance their ability to cope with trauma and promote PTG.
C8	(Ju Young et al, 2021)	Factors influencing posttraumatic growth among nurses caring for COVID-19 patients: A path analysis	To find out the factors that influence post-traumatic growth in nurses who care for COVID-19 patients	299 nurse respondents	Cross-sectional	intervention or appropriate social support as possible not reserved for nurses, and nurses have concern for negative emotions. It can degrade quality of care provided to patients and lead to negative consequences such as fatigue results of this study, hospital organizations and nursing managers should provide psychological and social support that encourages PTSD disclosure by nurses caring for COVID-19 patients. Hospital and nursing managers should mentor nurses who experience post-traumatic stress disorder when they are progressing post-trauma through reflection.
C9	(Pan Pan Cui et al., 2020)	Post-traumatic Growth and Factors among frontline nurses fighting against COVID-19	To find out the F factors that influence frontline nurses who fight against COVID-19	179 nurses respondents	cross-sectional	PTG frontline nurses influenced by length of work, confidence in work, awareness risks, interventions or psychological training Nurses need to strengthen psychologically guidance and training for frontline nurses about epidemic events that could increase their PTG.
C10	(Xin Peng, et al., 2021)	Post-trauma about Growth Level and Its Influencing Factors Among	To know Post Traumatic Growth Rates and Factors Affecting It Among Frontline Nurses During the	116 nurses as respondents	Cross-sectional	In this study, we observed a moderated level of P TG between frontline nurses who have been fighting against COVID-19 in Wuhan city for more than 3 months. Have children, physical discomfort and get support from family and friends during



ID Number	Writer	Journal Title	objective	Population and sample	Study method	Results and Discussion
		Frontline Nurses During the COVID-19 Pandemic	COVID-19 Pandemic			epidemic three influencing factors. Social support and professional psychological intervention should be applied to further increase the level of PTG.
C11	(Yuanyu et al., 2022)	Post-Traumatic Growth of Nurses Who Faced The Covid-19 Epidemic and its correlation with professional self-identity and social support	Post-Trauma Growth of Nurses Facing the Covid-19 Epidemic and Its Correlation with Professional Identity and Social Support	266 nurses as respondents	Cross-sectional	PTG in nurses dealing with COVID-19 was found in level above average. Nurses from other provinces moved in to support Hubei Province, professional, and social identity support is an important influencing factor. The nurse leader must pay attention to PTG and the factors that influence nurses and offer solutions to maintain mental health among these caregivers.
C12	(Eriyono, 2020)	Nurses' perception of posttraumatic growth (PTG) after natural disasters	To find out nurses' perceptions of post-traumatic growth (PTG) after natural disasters	14 nurses as respondents	Qualitative	This study found three main themes that suggest views of Indonesian nurses on PTG. description that PTG has been considered as a new concept between nurses. Learning highlighting its importance improve nurses' understanding of PTG so they can provide the right strategy or interventions to support disaster survivors on the move towards more positive changes. Education and training for nurses on how to facilitate disaster victims to achieve PTG is recommended
C13	(Yuanyuan et al., 2022)	Posttraumatic growth and positive determinants in nursing students after COVID - 19 alarm status: A descriptive cross - sectional study	To find out post-traumatic growth and positive determinants in nursing students after COVID-19 status	292 studio respondents	Cross-sectional	The current findings reveal that psychological flexibility is important to support the psychological resilience of nursing students after the primary acute period of the COVID-19 pandemic, and psychological resilience is essential to support them PTG. The results can provide clues to help implement targets strategies to support the positive psychology of nursing students education
C14	(Tehreem & Iram, 2022)	Religious Beliefs, Work Motivation, Risk Perception and Posttraumatic Growth in Healthcare Workers during COVID-19	To find out Religious Beliefs, Work Motivation, Perceived Risk and Post-traumatic Growth in Health Workers During COVID-19	87 respondents	Cross-sectional	The results revealed that religious belief and self-regulatory motivation were significant predictors PTG while self-regulated motivation also mediates direct relations between religions belief and PTG. Investigate the factors that may lead to growth after experiencing trauma is an essential necessity of turbulent times
C15	(Kirsten et al., 2023)	Predictors of Post-Traumatic Growth in a Sample of United Kingdom Mental and Community	To find out Predictors of Post-Traumatic Growth in a UK Sample of Mental and Community Health Care Workers during	24,800 respondents	Cross-sectional	Our study supports the value of taking an approach focused on organizational growth towards occupational health during difficult times, such as the COVID-19 pandemic, supporting staff to build on their strengths and identify and engage with opportunities to personal growth and professional development, rather than just focusing on



ID Number	Writer	Journal Title	objective	Population and sample	Study method	Results and Discussion
		Healthcare Workers during the COVID-19 Pandemic	the COVID-19 Pandemic			support for staff struggling with their mental health. In particular, appreciate the role cultural and religious identity of staff in their work in the face of adversity, and support staff to engage in reflective processing of stress through activities, like mindfulness and meditation, can help promote post-traumatic growth

DISCUSSION

Nurses as frontline health workers in dealing with the Covid-19 pandemic have experienced changes in both their workload and increased stress. The results of previous studies indicate that workload and fear of transmission are positive predictors of secondary traumatic stress. Fear of contagion, increased workload due to lack staff appear to positively predict post-traumatic recovery. Taken together, these findings indicate a need for precautionary measures protect these professionals from long-term negative impacts (Jennifer et al., 2021).

Female gender has a faster post traumatic growth recovery rate than males (Kuipers et al., 2019). Advanced practice nurses and clinical nurses have higher rates of workplace trauma, compared to nursing assistants and medical students (Yuanyuan et al., 2022). Nurses who have graduate level education also affect faster post-traumatic recovery (Chizimuzo et al, 2020). The results of a study conducted by (Han & Ji-Young Chun, 2023) state that the factors that influence post traumatic growth include: marriage, religion, self-disclosure and the meaning of life. When a new infectious disease appears it is necessary to develop programs that can encourage and help nurses discover meaning of life, and increase their ability to cope with trauma and promote post traumatic growth. Hospital and nursing managers must provide psychological and social support that encourages the disclosure of Post

traumatic growth to nurses who care for COVID-19 patients. Hospital and nursing managers should mentor nurses with post stress disorder trauma as they go through a period of recovery through reflection (Ju Young et al, 2021). Activities that can be provided by the hospital include meditation, which can help encourage post-traumatic growth in nurses (Kirsten Barnicot et al., 2023). During the process towards post traumatic growth, nurses need social support and family support to accelerate recovery. Assistance from mental health professionals is also needed to improve PTG recovery faster and maximally (Xin Peng et al., 2021). Religion is a predictor for accelerating PTG in nurses, because with faith and diligent worship one can reach the PTG phase which is faster (Tehreem & Iram, 2022). The views of Indonesian nurses regarding PTG state that PTG has been considered as a new concept in nurses. Learning highlighted the importance of increasing nurses' understanding of PTG so they can provide the right strategy or interventions to support nurses who act as mobile disaster response paramedics towards more positive changes. Education and training for nurses on how to facilitate disaster victims to achieve PTG (Eriyono & Herni Susanti, 2020).

CONCLUSION

Nurses as the frontline during the Covid-19 pandemic caused stress for nurses. The trigger is the fear of contracting



Covid-19 and the increased workload. This causes the hospital to understand how to handle and deal with traumatic nurses. Nurses who have been able to get past their trauma will be in post traumatic growth. This phase is a phase where nurses begin to be able to make positive assumptions about the trauma experienced, especially during the Covid-19 pandemic. Social support, family support and professional treatment in the field of mental health must be maximized to accelerate the post trauma growth phase in nurses.

ACKNOWLEDGEMENT

The author would like to thank the Faculty of Nursing, University of Jember for supporting the publication of this article; We also thank those who have supported the process of writing this article. There is no conflict of interest in this article.

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