

## AN INTEGRATIVE REVIEW OF FACTORS AND INTERVENTIONS AFFECTING NURSES' MENTAL HEALTH

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### Abstract

**Backgrounds;** Nurse numbers are rising, but so are mental health issues due to healthcare sector pressures. Mental health allows one to cope with stress, realize potential, perform well, and contribute to society; **Objectives;** This integrative review aims to systematically evaluate the current literature on factors and interventions that influence nurses' mental health. These findings can provide an overview of the influencing factors and what interventions are used to maintain nurses' mental health. **Methods** Literature search: Pubmed, CINAHL, Science Direct, Garuda, Cochrane databases. Criteria: English articles (2018-2023), free access, on nurses' mental health factors/interventions. Excluded: literature reviews, Covid-19 related. From 867 initial titles, 8 articles met inclusion criteria after screening. **Results;** Factors affecting nurses' mental health: workload, fatigue, job demands, social support. Interventions: character strength development, self-efficacy, professional support, anger management, CBT, internet-based therapy, group psychotherapy for resilience. **Conclusions;** Studies show work fatigue, workload, job demands, and professional support affect nurses' mental health. Effective interventions like CBT, workload management, and resilience programs reduce depressive symptoms and improve nurses' psychological well-being. Good workload management, psychological interventions, and resilience programs are crucial for enhancing nurses' well-being and care quality.

**Keywords:** *Mental Health; Nursing.*

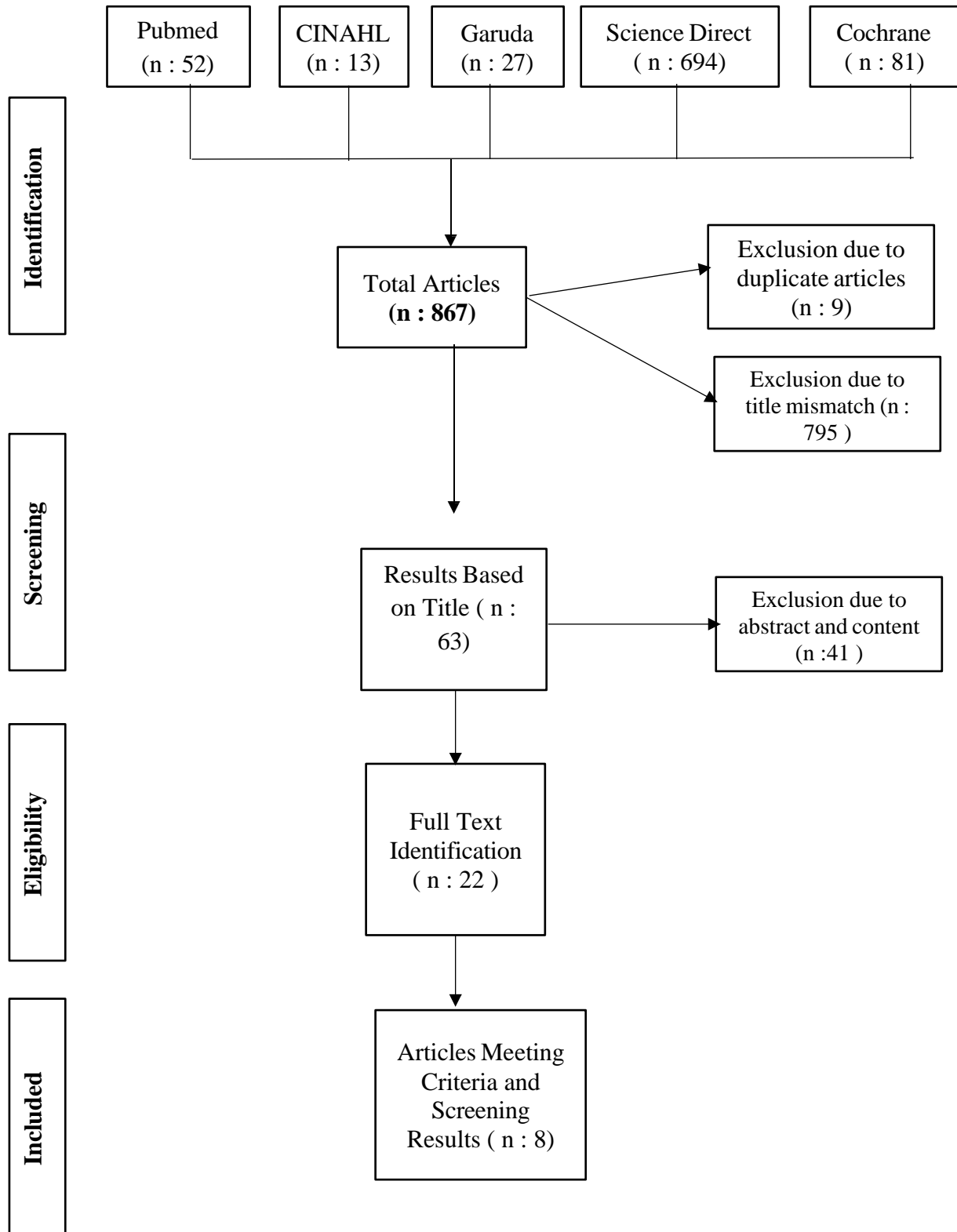
## **BACKGROUND**

Indonesia had 563,000 nurses in 2022, part of 1.4 million healthcare workers. Nurses' mental health issues are rising due to sector pressures. Mental health enables coping with stress, realizing potential, and contributing to society. Global mental health disorders are increasing, with depression and anxiety costing \$1 trillion annually. Studies show many nurses experience moderate stress levels. Nurses' mental health is crucial for their well-being and care quality. This review aims to evaluate factors and interventions affecting nurses' mental health.

## **METHODS**

An integrative review is conducted to summarize previous research and to draw conclusions about phenomena that are not yet known. In this case, the review focuses on factors and interventions that may affect nurses' mental health. The literature search strategy uses electronic databases: PubMed, CINAHL, Science Direct, Garuda, and Cochrane. The keywords used are Influencing factors AND Interventions AND Nurses OR Nurses AND Mental health OR mental wellness OR psychological health. The inclusion criteria are as follows: Written in English from 2018 to 2023, Articles accessible with Free Full Text and Open Access, Reporting factors affecting nurses' mental health, Reporting interventions affecting nurses' mental health. The exclusion criteria are as follows: Literature reviews, Articles reporting factors affecting nurses' health during the Covid-19 pandemic, and Articles reporting interventions affecting nurses' health during the Covid-19 pandemic. Results: 867 initial titles, 8 articles included after screening. Data abstraction: Authors reviewed titles, abstracts, and full texts. Relevant data: author info, year, country, objectives, methods, sample, findings, and quality. Quality assessment used standard criteria based on research design.

Diagram 1: Flowchart for Determining Research Sample



## RESULT AND DISCUSSION

### 1. Study Characteristics

This review has reviewed nine quantitative studies. All articles address factors affecting and interventions related to nurses' mental health. The studies involve various countries worldwide, with three studies from Indonesia, two from China and Japan, and one each from South Korea and Germany. The population studied includes nurses from various units in several hospitals. Research locations vary, including both urban and rural clinical settings.

### 2. Factors Affecting Nurses' Mental Health

The main factors reported in these studies stem from nurses' experiences. These factors include workload, fatigue, job demands, and social support. The triggers for mental stress include environmental aspects, organizational aspects, and personal aspects. Ecological aspects related to business cycles cause economic instability, political contacts lead to mental stress, and changing technology may cause anxiety due to new technologies and inexperienced employees. Organizational aspects of mental stress include overly cautious behavior to avoid mistakes, tight deadlines, excessive workload, lack of autonomy from supervisors, demanding supervisors, and unfriendly colleagues. Nurse work stress is caused by many factors, including night shift work, multi-role conflicts, minimal social support, worker-family conflicts, various job demands, excessive workload, unsafe working conditions, minimal promotion, excessive promotions, shortages, and imbalances in the ratio of nurses to patients, which can lead to excessive workload.

### 3. Interventions related to nurses' mental health

Interventions used in research to address nurses' mental health issues include:

- a. Character strength
- b. Self-efficacy
- c. Professional support
- d. Anger management
- e. Cognitive-behavioral therapy: Training that includes elements of cognitive-behavioral therapy and psychodynamic psychotherapy. Additionally, mindfulness and imagery exercises are incorporated. This intervention aims to equip participants with new skills to help them better cope with individual stress. This training is based on a psychodynamic model that focuses on the development of stress.
- f. The newly developed iCBT program for nurses consists of six modules covering various cognitive behavioral therapy (CBT) components. These modules include the transactional stress model (in module 1), where participants learn about the transactional stress model and pay attention to stress responses and triggers; self-monitoring skills (in module 2), where participants learn the cognitive-behavioral model and tips for self-case formulation using this model; behavioral activation skills (in module 3), where participants learn about behavioral activation skills; cognitive restructuring skills (in modules 4 and 5), where participants study Beck's mental model and self-monitoring tips; relaxation skills (in module 5), where participants learn about cognitive restructuring and relaxation skills; and problem-solving skills (in module 6), where participants learn about problem-solving methods. Intervention group participants are required to read these modules over nine weeks. The primary outcome is the evaluation of depressive symptoms assessed using the Beck Depression Inventory-II (BDI-II) at baseline, three months, and six-month follow-up.
- g. As well as a group psychotherapy intervention program to foster resilience in nursing professionals.

Table 3. Details of Reviewed Studies

The 2<sup>nd</sup> Nani Hasanuddin International Health Conference (NHIHC)  
 “Navigation The Future of Health Care Addressing Challenges and Embracing Innovation in  
 Nursing, Midwifery, Nutrition and Pharmaceutical Profession”  
 The STIKES Nani Hasanuddin, Makassar, August 10-11, 2024

Author , Year	City	Research Objective	Design and Method	Sample and Setting	Findings
(Yunawati , 2021)	Indonesia	The research aims to determine the factors related to job profession among nurses in the Inpatient Installation of the Southeast Sulawesi Provincial Mental Hospital in 2020.	Analytical cross-sectional approach with a sample of 53 nurses. Chi-square test for professional analysis.	Cross-sectional study on 53 nurses in the Inpatient Installation of the Southeast Sulawesi Provincial Mental Hospital. Saturated sampling method	Work fatigue is significantly related to the job profession among nurses, whereas mental workload and work climate do not show a significant relationship.
(Tarwati , 2023)	Indonesia	The purpose of this study is to determine the relationship between workload and the level of profession among nurses in the inpatient ward of Jampangkulon General Hospital.	A descriptive analytic design with a cross-sectional approach was used, using quota sampling and Chi-square analysis.	54 nurses in the inpatient ward of Jampangkulon General Hospital, Sukabumi, West Java, Indonesia	A significant relationship between workload and the level of profession among nurses in the inpatient ward of Jampangkulon General Hospital.
(Rahman, 2022)	Indonesia	This study aims to identify the factors related to the job profession among nurses at the Southeast Sulawesi Provincial Mental Hospital.	Observational analytics with cross-sectional approach and total sampling.	Fifty-one nurses at the Southeast Sulawesi Provincial Mental Hospital, research conducted in June 2022. Total sampling technique	Workload, job demands, and professional support are significantly related to the job profession among Southeast Sulawesi Provincial Mental Hospital nurses.
(Xie et al., 2020)	Cina	To explore depressive symptoms and psychological well-being among Chinese nurses and analyze the impact of character strengths, self-efficacy, and professional	Cross-sectional and descriptive design using five self-reported questionnaires. Stratified cluster random sampling and	Four thousand two hundred thirty-eight nurses from 31 hospitals in 15 cities across 13 provinces in China. Response rate of 84.8%. The	There is a high prevalence of depression among Chinese nurses, a positive relationship between character strengths and psychological well-being, and curiosity as a robust protective
		support on nurses' mental health.	SEM for model verification.	majority were female and aged 26-35 years.	factor against depression. Character strengths indirectly reduce depression and improve psychological well-being through social support and self-efficacy.
(Yun & Yoo, 2021)	Korea Selatan	To examine the effect of an anger management program on anger, job profession, psychological well-being, and heart rate variability among clinical nurses.	Quasi-experimental design with a control group, pre-post test with repeated measures.	Forty-three nurses: 20 in the experimental and 23 in the control group. She conducted at S Hospital and Y Hospital, Seoul.	The anger management program effectively reduces anger and job-profession stress, improves psychological well-being, and regulates heart rate variability among clinical nurses. There have been positive changes in heart rate variability, reduced state anger, and improved psychological well-being.
(Esaki et al., 2020)	Jepang	This study aims to ensure the effectiveness of cognitive-behavioral therapy (CBT/CBP) as an intervention for newly licensed registered nurses (NLRN) and identify which nurses benefit most from CBP.	This is an observational longitudinal study of 683 newly licensed registered nurses (NLRN) over one year, with assessments every three months.	There were 683 newly licensed registered nurses (NLRN): 522 in the CBP group and 181 in the non-CBP group. The mean age at enrollment was 22.2 ± 1.8 years.	There is a significant relationship between CBP and benefits on depressive symptoms for all NLRNs. A more substantial relationship exists when BDI scores are low after starting work and increase before CBP. CBT is effective in preventing depression and improving well-being and self-esteem. Identifying the target population for CBP based on BDI changes in the first three months after starting work is essential.

Author, Year	City	Research Objective	Design and Method	Sample and Setting	Findings
(Janzarik et al., 2022)	German	To test the efficacy of a new group intervention program to foster resilience in nursing professionals, targeting six resilience factors and measuring its impact on mental health, job satisfaction, and other psychological outcomes.	Randomized controlled trial with pre-test, post-test, and follow-up design.	72 nurses were randomized into the intervention or waitlist control group at Johannes Gutenberg University Medical Center, Mainz, Germany.	There was a significant improvement in mental health in the intervention group compared to the control group. The effects lasted up to six months. There was also a significant increase in resilience and related outcomes. Individual job stressors significantly impact mental health.
(Kuribayashi et al., 2019)	Japan	To investigate the impact of a newly developed internet-based cognitive-behavioral therapy (icbt) program on depressive symptoms among nurses in Japan and test its effectiveness in improving depressive symptoms and preventing major depressive episodes (MDE).	Two-group non-blinded RCT with three and six-month follow-ups. Mixed models for repeated measures and conditional growth model analyses for primary and secondary outcomes. Survival analysis for MDE onset.	Nurses without mental illness work in hospitals in Japan: three universities, one general hospital, and twelve private hospitals.	Development and testing of ICBT program for nurses in Japan, with improvements in depressive symptoms.

Several studies in various countries focus on factors affecting nurses' profession and well-being. The survey by Yunawati (2021) in Indonesia found that work fatigue is significantly related to the nursing profession at the Mental Hospital of Southeast Sulawesi Province, while mental workload and work climate are not. Tarwati (2023), also in Indonesia, found a significant relationship between workload and the level of the nursing profession at RSUD Jampangkulon, highlighting the importance of workload management.

An international study by Xie et al. (2020) in China explored depression symptoms among nurses and found a positive relationship between character strengths and psychological well-being. Curiosity was identified as a robust protective factor against depression, emphasizing the importance of character strength-based interventions. Rahman (2022) in Indonesia showed that workload, job demands, and professional support are significantly related to the nursing profession at the Mental Hospital of Southeast Sulawesi Province.

The study by Esaki et al. (2020) in Japan evaluated cognitive behavioural therapy (CBT) and found that CBT effectively reduces depressive symptoms and improves psychological well-being among newly licensed nurses. In Japan, Kuribayashi et al. (2019) also showed that internet-based cognitive behavioural therapy (CBT) effectively reduces depressive symptoms and improves the psychosocial work environment and job engagement. In Germany, Janzarik et al. (2022) examined a group intervention program to enhance nurses' resilience. The results showed significant improvements in mental health and resilience, with effects lasting up to six months, highlighting the importance of resilience programs to help nurses cope with work stress.

## CONCLUSION

Various studies show that work fatigue, workload, job demands, and professional support affect nurses' mental health. Effective interventions, such as cognitive behavioural therapy (CBT) and workload management programs, have been proven to reduce depressive symptoms and improve nurses' psychological well-being. Studies also indicate that resilience programs, with long-lasting effects, can significantly enhance nurses' mental health. Good workload management, psychological interventions, and resilience programs are crucial for improving nurses' well-being and the quality of care they provide.

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