



# **Factors Causing Stress in Nursing Care**

## **A Literature Review**

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**Abstract**

Even though stress is a serious health issue that affects many individuals worldwide, it is still frequently minimized. Stress in simple terms means the way individuals feel or react when under pressure or threatened. Nursing is a very demanding job, which means stress is inevitable. Managing stress in nursing is essential. Intense levels of stress can affect nurses' and their patient's well-being.

The aim of the research was to identify the factors causing stress in nursing care. Data were gathered from three databases: CINAHL, PUBMED, and Google Scholar. Eight articles emerged from the search, which were analyzed using inductive content analysis. The following four themes were developed. These were, environmental factors, occupational factors, organizational factors, and lastly psychological factors.

In conclusion, it was found that heavy workload, time pressure, shortage of staff, uncondusive working environment, lack of social support, and emotional distress are among the stress factors in nursing care. Nurses can identify specific stressors and develop strategies to avoid or mitigate them. For example, emotion-focused coping techniques, improving their problem-solving skills, and finally, the hospital organization should provide social support to nurses and create a more conducive and friendly environment. The development of these strategies would lead to better health for nurses and positive patient experiences.

**Keywords/tags (subjects)**

Nurses, stress, stressors, nursing care, and coping mechanisms

**Miscellaneous**

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## 1 Introduction

Over the last two years, the general working population stress rate recorded high in 2020 (Global Workplace 2021) report. The stress level rose from 38% in 2019 to 43% in 2020. The increase in stress level was due to the global pandemic, which led to world lockdown and economic crisis (Martin, 2021). The pandemic affected every sphere of working life especially the health care system. One major effect of the pandemic is that it led to an increase in stress due to social isolation, suffering, life threats, and financial worries. All of these have been identified as stressors that contribute to depression. (WHO, 2022)

Work stress is very expensive and can lead to depression. Selye, in the early 90s in which this study was based on, pioneered research concerning stress. He provided arguments that stress impacted health. (Selye, 1936). Stress is the cause of most diseases and if everyone could identify and know how to manage stress before it gets worst there would not be too many diseases and mental health problems in the world. For a nurse to be able to provide holistic care, he or she needs to be in a good state of mind. As stated by Eslami, Elahi, Mohammadi, & Fallahi, (2017) the nurse's process of coping with stress was the nurse's method of stress management.

Nurses' stress has negative effects on nursing care, and this is not good for the health policy. Stress is something that is witnessed by almost every organization but the difference of it all is at what level of stress and what to do to overcome it, so it does not affect productivity. According to (Maiden, Georges & Conelly, 2011) one of the most difficult jobs is human relations, and nurses must work for longer hours, high workload, putting in their physical, emotional and psychological strength to take care of their clients. These can lead to burnout and results to poor nursing care.

According to Meysam, Hamid, Shiva, Farshad, Ehsan & Zohreh, (2018) stress in nursing is due to unpleasant work conditions, which include heavy workload, long shifts, lack of work promotion, benefits, and acknowledgment from society. These increase their stress level, which has negative impacts on nursing care.

In nursing care, research on stress is an issue of major concern because prolonged stress has a negative impact on nursing care. While identifying stressors is important, it is their impact that should be of most concern because it has an adverse effect on nursing. When attempting to comprehend the implications of individual behavior when offering healthcare services on how they affect the public, this is crucial. The topic is of great importance because even though there has been prior research on the subject, more understanding and information are needed to support and assist the nurses who are dealing with stress and thereby improving the healthcare system.

The aim of the research was to identify the stress factors in nursing care and the effects they have on patient outcome. The purpose of the research is to raise awareness on stress factors and how they affect nurses' job. The research seeks to contribute to the nursing research on stressors and to help implement different coping mechanisms that could be adopted by the healthcare practitioners to alleviate stress there by providing quality care.

## **2 Nursing and Stress**

### **2.1 What is Stress?**

There is no one definition of stress, but for the purpose of this research, stress is a normal human reaction that occurs to people from time to time. Human beings are designed to experience stress and react to it. Stress is our body's response to change. Stress is the way humans feel, react when they are under pressure or vulnerable, and are unable to manage or control the situation (CDC, 2022).

Work stress is stress people experience in the workplace. When workers' capabilities or resources do not match the requirements of the job, they experience work-related stress, which is detrimental to their mental and physical health. This can affect both the health and well-being of the employees and the organization (Dopkeen & DuBois, 2014). For decades, researchers have argued that though nursing is a noble job it is also one of the most stressful (Canady & Allen 2015, Casarella, 2020, Battie & Steelman, 2014, 537). This prompted the writer to highlight the stress factors in healthcare and how they affect nursing care.

Reports show that 80% of all workplace injuries and 40% of the financial burden in the workplace are attributed to stress (American Institute of Stress, 2020). High expectations, excessive responsibility, and a lack of support from the organization have been identified as the primary stressors, making nursing a job with complex demands and needs. In addition, nurses are in close contact with patients, and this can increase the risk of infection. Likewise, the ward manager's attitude, the location of the workplace, the number of hospitalized cases, a lack of employees, forced overtime, and other factors can put a lot of stress on nurses (Battie & Steelman, 2014, 537).

### **Stress and its effects on the affected individual**

Stress is subjective. Since the definition of stress varies depending on the context, there is no one specific definition. Nevertheless, Selye, (1936), designed the term “stress” as “the non-specific response of the body to any demand for change” (American institute of stress, 2020). Stress refers to a situation where the challenges and demands exceed existing resources. Both pleasant and unpleasant things may cause stress depending on individual interpretation of the situation and response to pressure. Something that causes stress in some people may be a strength for others. Headaches, loss of appetite, high blood pressure low sex drive, issues with sleep, and other physical symptoms can occur if a person is consistently under stress. Emotional issues, such as melancholy, mood swings, anxiety and depression are a result of stress. The problem goes far beyond stress itself depending on how it is managed. More problems can result for example, if the person engages in smoking, use drugs, react too strongly, gamble, or have risky sexual relationships (Casarella, 2020).

Stress results from both internal and external pressures and has an impact on one's emotional, physical, or both states of being. Due to the overwhelming amount of stress some people must endure, thus, stress is frequently associated with being bad; but, from a biological perspective, stress can be neutral, bad, or good (medicine net 2022). Stress is a highly individualized experience. One person's definition of excessive stress may not be the same as another person's definition of stress. This is similar to how each person's symptoms and warning signals of poorly managed stress may vary. Ibid

## **Stress in general**

Stress is common during times of change when a person's resources and ability to adapt are put to the test. Work and study-related stress may be caused by busy schedules, unreasonable workload, problems with time management, lack of support, a poor work or study atmosphere, uncertainty about one's own abilities and skills, and lack of control over work, role authority issues (Najimi, Goudarzi & Sharifirad, 2012). The pioneer of stress Selye, H., (1976) made a distinction between eustress and emotional distress. Eustress is regarded as a growth-promoting response to the environment. Staff can be inspired, empowered, and motivated by stress, which can improve the care-giving process. However, the individual may become distressed, which is a negative response to the environment that results in physical and psychological maladaptation, if the stress is persistent, intense, or repeated and they are unable to cope. Ibid

Stress is generally influenced by both internal and external causes. The physical environment, employment, personal interactions with others, personal house, and all the circumstances, problems, obstacles, and expectations encounter every day are all considered external influences. Most often external circumstances are determined by internal elements. The general health, fitness levels, and most importantly relationship with others affect one's capacity to handle stress. (Medicine net 2022)

## 2.2 Stress in nursing Profession

As stated in article six of the international council of nurses amended constitution (2021) a nurse is defined as a person who has successfully completed a nursing education program and is qualified and authorized to practice as a nurse. The ICN code of ethics (2021, 4) Nurses are guided by ethical principles in making informed decision-making to meet the requirements set by the regulatory organizations. The four fundamental responsibilities of a nurse include health promotion, disease prevention, health restoration, and pain relief. Nurses' primary professional duty is to execute these fundamental duties with respect to all regardless of social status, culture, race, gender or religion. Along with advocating for equity and social justice, nurses are expected by the nursing profession to protect the privacy and confidentiality of patients and colleagues. These constitutions put so much pressure on nurses. (International Council of Nurses, revised 2021, 9)

According to Fariba, Abbas, Nouzar and Mostafa (2014) nursing profession entails a high level of human relationships and because of that, there is a high tendency of creating professional stress. Job dissatisfaction and some environmental limitations in the workplace due to stress may lead to absenteeism and reinforce the thought and desire to resign from the health care profession. Nursing is a particularly demanding profession since nurses are accountable to patients, their families, their workplaces, and other healthcare professionals for the decisions and actions they take when providing patient care. In addition, making informed ethical decisions almost every day could be stressful and requires a lot of skills and knowledge. (Battie & Steelman, 2014, 537).

Nursing profession is both physically and emotionally draining and stressful (Faraji, Karimi, Azizi, Janatolmakan & Khatony, 2019). Due to their professional empathy towards patients, nursing exposes nurses to different types of stress which if persist can lead to chronic disease. Moreover, most nurses find it harder to manage patients, especially the terminally ill patients with whom the nurses have frequent contacts. The most important element in health care is providing quality, evidence-based and holistic care to clients. Nurses are the mediators between the doctor and the client and as such observing proper nursing care would lower the risk of mistakes jeopardizing client's health in clinical settings. On the other hand, nurses' job stress and other stress factors could have adverse effects on nursing care (Applebaum, Fowler, Fiedler, Osinubi, & Robson, 2010).



The primary causes of organizational stress are: (1) Administrative Constraints, (2) Organizational Structure and Climate, (3) Work Relationships, (4) Role Expectations, and (5) career development. Thus, organizational setup and culture in the hospital facilities could be correlated with occupational stress and burnout among nurses. (Finney, Stergiopoulos, Hensel, Bonato, & Dewa, 2013)

As stated by Shamian, (2015) nursing should not be limited in health care policy but be extended in world's politics. In his writings, he said nurses are in the frontline in nursing and encouraged nurses to make their voice be heard when drawing the country's policy plan. This step will lead to a better outcome in health promotion. In the same line, Pauly, Varcoe and Storch (2012) said that when one's beliefs and values are not in line with work, there is bound to be some conflicts. These may lead to job dissatisfaction fueling the intention to quit the nursing profession. (Pauly et al. 2012)

Nursing profession entails emotional intelligence. It is a prerequisite for success in health care because it involves understanding and managing emotions, both in ourselves and in others. Unfortunately, most health care organizations have not incorporated emotional intelligence into the health care system. Nursing involves so many different emotions, so as nurses, one should be able to act purposefully, listen rationally to clients and deal with things effectively. This is important in nursing, where stress is a constant pressure. (Faguy, 2012)

## 2.3 Consequences of Stress in nursing care

Stress factors in nursing have some serious repercussions on providing holistic care. This is even worst in cancer wards where the number of nurses is far less compared to the patients to be cared for. Thus, nurses are bound to face emotional trauma which could lead to reduce sleep pattern, loss of appetite, mood swings, and reduce energy. This can also lead to physical problems such as pain and increase job absenteeism (Stenberg, Ruland & Miaskowski, 2010). In the same light, (Stenberg et al. 2010), concurred that that stress has an impact not only on job satisfaction but also on personal and social life domains like friendships, health, family, and well-being. As a well-known risk factor for a variety of mental and physical health issues, nurses are also exposed to the psychological and physiological effects of stress. This might lead to burnout, absenteeism an unrest at work. In addition, it was reported that age, heavy workload, long shifts and underlining health issues were stressful for older nurses. Thus, having a negative impact on nursing.

Even though stress is a known part of modern nursing that can be helpful when it is minor, if it persists and it is intense, it might lead to chronic diseases which might result to heart failure (Health e University 2022). Moreover, job stress causes job quit, co-workers' conflict, reduced energy and work efficiency, and reduced quality of nursing care. The running of medical services is impacted, either directly or indirectly, by stress. (Farquharson, Bell, Johnston, Jones, Schofield, Allan, Ricketts, Morrison, & Johnston, 2013)

## 2.4 Coping Strategies

Stress in the nursing profession can have some serious repercussions on the physiological and psychological health status of nurses which might lead to work inefficiency. Hence, it was important to examine the stressors and highlight some coping mechanisms to handle stress. Moreover, since stress is part of life, learning how to identify, and successfully manage stress is an important life skill all nurses should know (WHO, 2022).

Sometimes, a small amount of stress can help us to complete tasks and feel more energized. However, stress can become a problem when it lasts for a long time or is very intense. In some cases, stress can affect our physical and mental health (Health e university 2022) Identifying the causes of stress is very important because it will help in developing strategies to reduce or combat stress, create a sense of good working atmosphere, which will lead to positive outcome. (Karyotaki, Cuijpers, Allor, Alonso, Auerbach, Bantjes, Bruffaerts, Ebert, Hasking, Kiekens, Lee, McLafferty, Mak, Mortier, Sampson, Stein, Vilagut, & Kessler, 2020)

The goal of stress management interventions is to minimize problems in the work environment. Next, to intensify aspects of the work environment that, enable people to cope with stressors that might arise, and finally, provide information for employees and organizations to manage stress that might occur despite all efforts to create a conducive and friendly workplace ((Canady & Allen2015).

Knowing oneself and the stress management skills, can lead to quick responses to stressful situations calmly. However, inadequate stress management skills and long-term pressure may cause harmful stress symptoms that impair psychological and physical well-being. Hence, nurses' wellbeing should be prioritized because without nurses there will not be any nursing (Given et al., 2012). Cancer centers offer evidence-based programs that promote effectively caring for the cancer caregiver and educating patient on selfcare (Melissa et al. 2014).

Employees are the central of any successful company; therefore, sustaining and supporting their health is vital for work efficiency. Thus, nurses should be able to act purposefully, listen rationally to clients and deal with things effectively. This is important in nursing, where stress is a constant pressure. (Faguy k. 2012, Pauly, Varcoe & Storch, 2012).

The government providing educational programs with regards to nursing can raise awareness about the nurses' plights and concerns and provide management skills that can improve their well-being. In addition, the organization can facilitate nurses' job by providing cognitive-behavioral intervention programs with the aim of identifying the causes of stress in the workplace and providing soft skill programs such as team working, behavioral and communication skills and teaching effective coping strategies to reduce stressors (Applebaum et al. 2014)). Likewise, Jukic, Ihan, Petek Šter, Strojnik, Stubljar & Starc, (2020) concurred that providing good environmental condition could play a significant role in alleviating work stress. Thus, identification of stress and management interventions in nursing is important.

### **3 Aim**

The aim of the research was to identify the stress factors in nursing care. The objective of the research is to raise awareness of the negative impacts of stress and suggests methods to manage stress in nursing.

Research question: What are the causes of nurses' job stress in the hospital?

## 4 Methodology

### 4.1 Literature review

The main research approach is the literature review. Reviews from several research articles related to stress were used in this research. Majority of the articles used were qualitative research articles. According to Denzin & Lincoln (2011, p. 3), qualitative research investigates things in their natural situations while attempting to make sense of them. This was concurred by (Creswell, 2013, p. 44) who added that the main aim of a qualitative research is its contribution to the literature or a call for change. Qualitative research is one in which starts with hypothesis and make use of explanatory theoretical framework that enlightens the research problem and addressing it with no bias and with an intention of developing a theory or pattern. Qualitative research is an appropriate approach first because of its flexibility in providing new information and because it can explore and understand, precisely what is being looked for regarding nurses' job stress (Pathak, Jena & Kalra, 2013).

Again, literature review was used to demonstrate how the proposed research topic "factors causing stress in nursing care" is appropriate to existing nursing knowledge. It is also a great way to find answers to research questions and provide evidence-based information on what causes nurses' job stress in the hospital. This Literature review summarizes previously published literature articles and critically evaluates, analyzes, and synthesizes the results in order to connect previous studies to present knowledge. (Pathak, Jena & Kalra, 2013).

A literature review is a study of learned sources on a specific subject. It gives an overview of up-to-date knowledge, approving for the identification of applicable theories, approaches, and research gaps (Cronin, Ryan & Coughlan, 2010). According to an article by the University of North Carolina (2018), a literature review is a comprehensive summary of previous research on a topic. The literature review investigates scholarly books, articles, and other sources relevant to a specific area of research. Thus, this makes it a reliable choice of research methodology because it gives relevance in the development of knowledge towards a topic. This view was concurred by Snyder (2019) who

noted that a literature review is used to synthesizing research results to prove evidence on a meta-level and to expose areas in which more research is required, which is beneficial in creating theoretical frameworks and developing conceptual models. Thus, the reason why this knowledge could be used in the nursing profession.

When seeking to enhance and promote any division within the health sector, literature reviews are utilized to provide answers to research questions (Booth, 2016). Importantly, a literature review provides pertinent data that clarifies ideas underlying studies and contributes to the information needed to support evidence-based practice that is already being used (Jaffe & Cowell, 2014). Literature review seeks to summarize and synthesize the results of other researchers without adding new contributions. It also summarizes ideas, approaches and findings of topic and problems previously published. (Kiteley & Stogdon (2014)

Using literature review involves systematic planning and reporting various stages of the research. Stages of the research include identifying the research question and stating the purpose and the aims of the study. In addition, it requires selection with precise inclusion and exclusion criteria, and keywords used, and finding the search database. In accordance with the University of West Florida (2020), there are six main stages of conducting and writing a literature review. In the following order, the six stages were applied to this study; first, decide on choosing a topic in line with the research and narrow down ideas, which seeks to define the research. Second, search for the books and articles. Third, find relevant information in articles. Fourth, code the data by sorting out similar themes. Fifth, make a table by writing down the name of each of the coded themes and sixth, start writing the literature review.

To reach an in-depth understanding of the complex factors that cause stress, a literature review was the right approach used to collect data from other research articles and evaluate results on factors causing stress in nursing.

## **4.2 Scientific Article Selecting Process**

Data for this research was collected through Jamk University of Applied Sciences library services. The databases included CINAHL, PubMed, and Google scholar. The author made use of PICOS to guarantee accurate answers and article selection. Brandit & Faber (2018) said that using PICOS in

clinical research helps the researcher to focus on the main audience, the problem, and it ensures that all vital factors are considered when doing the search. For the purposes of this study, the definition of PICOS is as follows (P) being the target population, (I) being the interest, (CO) being context, and (S) being the study design. (Vitor, Ferrinho, Palma, Oliveira, Guerreiro, and Pereira, 2020) A PICOS table was drawn to show the most appropriate articles relevant to the topic.

Table 1: PICOS table

(PICOS)	
<b>P</b> (Population or participants)	Nurses
<b>I</b> (Phenomena of Interest)	Stress factors in nursing
<b>CO</b> (Context)	Hospital
<b>S</b> (Types of studies)	Scientific articles

Keywords used in the search were stress factors, stressor, pressure, burden, nurses, nursing care, registered nurses, hospitals, coping strategies and coping mechanisms. The descriptors related to Boolean operators “OR” and “AND” was used as follows “stress factors” OR “stressors” OR “pressure” OR “burden” AND “nurse” OR nurses “OR” nursing care “OR” registered nurses, “AND” coping strategies “OR” coping techniques “AND” hospitals “OR” wards. As a researcher or writer, gathering the appropriate data is one of the most crucial aspects in the research process because without it, no results can be reached. Consequently, the author applied the exclusion and inclusion criteria during the data collection process. Inclusion criteria are the requirements that a study must meet in order to be included in the research, while exclusion criteria are the elements that exclude a study from being included in the research. (Garg 2016)

Table 2: keywords

<b>Keywords</b>
Stress factors, stressors, pressure, burden
AND nursing care, or nurses or registered nurses
Or Sources of stress
And hospitals or wards
AND coping mechanisms or coping techniques and hospitals



Table 3: Inclusion and exclusion criteria

	<b>Inclusion criteria</b>	<b>Exclusion criteria</b>
<b>Language</b>	English language publications	Other languages
<b>Publication date</b>	From 2010 to 2022 were used in the study	Articles published before 2010 were excluded
<b>Scientific research articles</b>	Articles answer the research question	Did not answer the research question
<b>Peer-reviewed</b>	Peer-reviewed	Non-peer-reviewed
<b>Availability of references</b>	Articles with a reliable List of references were used	Articles without a list of references were excluded
<b>Availability of abstract</b>	Articles had an abstract and full text access for Jamk students	No abstract with incomplete text were excluded in the study
<b>Search terms</b>	Stress factors, Nurses, Nursing care, coping strategies	Other non-key words

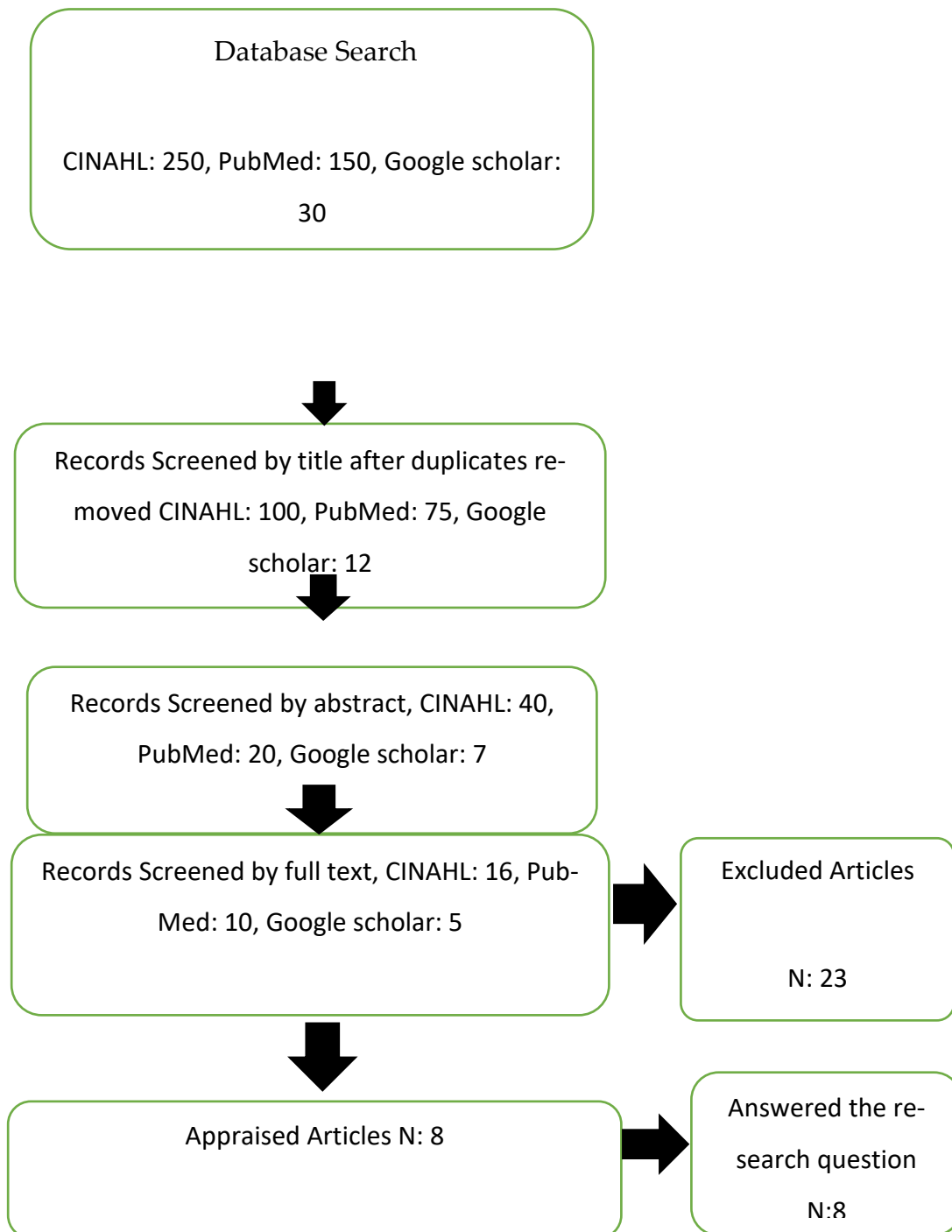


Figure 1: The selection process of articles

### 4.3 Critical Appraisal

The author evaluated the relevance of the eight articles that were chosen for the research by following Hawker, Payne, Kerr, Hardey, & Powell's (2002) three stages of critical evaluation. Data extraction, relevance evaluation, and methodological rigor score were the three processes that were evaluated. In the initial phase, studies from databases were included based on their applicability to the research question, context of the material particularly the setting (hospital) and those participating (nurses), source of data, and type of study. An assessment form was utilized to record all the pertinent information from the publications under consideration in the second stage of data extraction, with emphasis on how each article addressed the research question. The evaluation tool evaluates each chosen article in nine different areas, including the title, abstract, introduction, sampling, methodology, results, ethics and usefulness of the study. (Hawker et al, 2002)

The final step was attained using a checklist to take notes of data from each of the eight articles. The papers were graded from 34 to 36. The articles were evaluated using the scientific research criteria and given a score ranging from "poor" to "good". (Hawker et al 2002) Articles with scores greater than 33 were considered for this study, the highest score was 36 and the lowest was 34. (See Appendix 2)

### 4.4 Studies included

After thorough reading, eight articles were selected from eight countries. These articles were published from (2010) to (2022) in the following countries: United State of America, Britain, Germany, Slovenia, China, Greece, Saudi Arabia and lastly Iran. Babapour, Gahassab-Mozaffari, & Fathnezhad-Kazemi, (2022); Chatzigianni, Tsounis, Markopoulos, & Sarafis, (2018); Moustaka & Constantinidis, (2010), conducted a cross-sectional study using a questionnaire to investigate factors causing stress in nursing. Starc, (2018) conducted empirical research using the simple t-test. Lee & Kim (2020) used a mixed method appraisal. Roth, Wensing, Breckner, Mahler, Krug, & Berger, (2022) used a semi-structured interview and both Glazer & Liu (2017), and Donovan, Doody, & Lyons, (2013) used literature review. Likewise, the years of publication of the articles are as follows

2010 (1), 2013 (1), 2017 (1), 2018 (2), 2020 (1), 2022 (2). In addition, six of the articles aimed at the factors causing stress in nursing. One article was specifically based on patients and nurses' perceptions of what constitutes good nursing care. Last but not the least, one article aimed at to gain understanding of factors that led to nurses leaving or staying in the health care profession.

#### **4.5 Analysis and synthesis of data**

The answers for the research question were attained after analyzing and synthesizing data from the selected articles. A descriptive approach was adopted based on content analysis. In the words of Bengtsson, (2016) content analysis is a way of explaining and assessing phenomena that is both systematic and objective. Given that this was a literature review study, the researcher employed a thematic approach to analyze the descriptive data. This process entails downsizing the data, giving recognition to important themes, grouping them and presenting the findings in the best reasonable way that would be of great interest to readers. (Taylor, 2008). Thematic analysis was employed in this study because it presents a clear and simple picture of the entire results and findings and for readers to see what has been achieved and how it has been achieved. (University of Auckland, 2006.)

Thematic analysis involves the recognition, the analysis and presentation of data. (Braun & Clarke 2006) Still in the same trend, Vaismoradi, Turunen, & Bondi's (2013, p. 400) concurred that thematic analysis has a descriptive approach which is based on "...identifying, analyzing and reporting patterns within data". This research observed the six steps of thematic analysis to ensure a clear process of data analysis and synthesis established by Braun and Clarke (2006, p. 16). The steps are as follows: reading the data several times, creating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing a report. (ibid.)

The search terms and inclusion criteria gave 250 articles from CINAHL, 150 from PubMed and 30 from Google scholar. After the articles were screened by relevance of titles, 187 articles were left. These articles were further screened by abstract, which eliminated 67 articles because the articles did not include stress and were not related to nursing care. Full-text screening of 31 articles resulted in the exclusion of 23 articles because the studies did not address the research question and were unrelated to the research topic. There were eight articles included in the final analysis.

As shown in Figure 1, the search for articles began with screening the titles, then the abstracts, and finally the full text. The analysis included studies that answered the research question and met the inclusion criteria.

To be able to break the data into themes, the author thoroughly familiarized herself by reading all the chosen articles several times, and she then underlined any ideas that seemed to convey a significant topic. After carefully reading each article, the researcher wrote notes on her ideas and impressions. The researcher then began identifying the emerging codes from the data and generating subthemes, and primary themes. The coding assisted the researcher in determining the themes relevance to the research question as well as their presence, significance, and interactions among them. Accordingly, Moule & Goodman (2013) contend that throughout the inductive content analysis approach, interpretations of the data will be coded, organized into categories and themes, and links will be created across the data.

To confirm the validity and dependability of the data, a thorough raw data analysis, of sub themes and primary themes, as shown in figure 3, were represented in line with the categories it fits (Mertes, 2018)

The analysis and synthesis of data gotten from the selected articles for this research gave rise to twelve sub-themes. This gave rise to the four main themes that were formed from the coded text by grouping and forming themes. The four main themes emerged from the eight articles include: Organizational factors, occupational factors, Environmental factors, and psychological factors. These are mentioned below in figure 2.

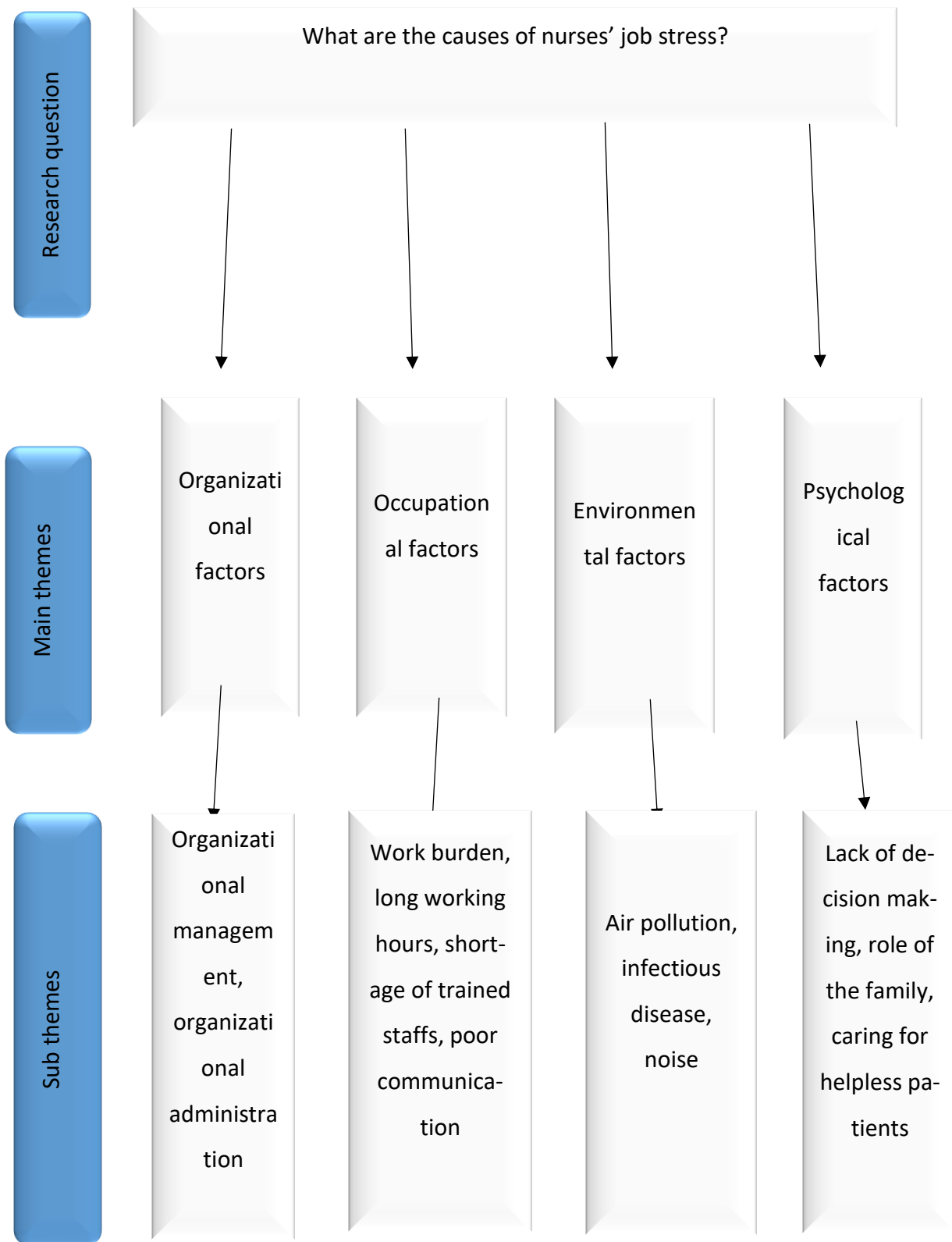


Figure 2: Results of data analysis

## 5 Results

The analysis of the eight articles generated four main themes regarding the factors causing stress in nursing. The four main themes were organizational factors, occupational factors, environmental factors and lastly psychological factors.

### 5.1 Organizational factors

**Poor administration and management:** Management and administrative responsibilities are a major source of causing stress among nurses since poor management and leadership leads to things such as ambiguity and role conflict (Moustaka & Constantinidis 2010). Clear organizational policies and protocols help the hospital accomplish its organizational structure. It provides nurses with guidelines so they can work effectively. Given that nursing is a constantly changing and developing profession with space for rivalry, this organizational component and leadership style contributes to the stress that nurses must endure (Roth et al. 2022); (Donova et al. 2013). Stress is related to reduced efficiency, reduced execution ability and insufficient support from the organization (Moustaka & Constantinidis, 2010). These issues typically manifest as poor job description, poor leadership style which can result in issues like role confusion (Moustaka & Constantinidis 2010). Stress has negative effects on workers experiencing it and the organization paying for it. (Babapour et al. 2022); (Glazer & Liu, 2017).

### 5.2 Occupational factors:

**Work burden:** According to the study's findings, occupational factors play a significant part in stress among nurses. The overwhelming amount of work that nurses had to do contributed to job stress. According to almost all the articles reviewed, the quality of life that is tied to nurses' health is negatively impacted by job stress. It can also overshadow the delivery of care and lessen nurses' commitment to ethical behavior, which may be one of the variables influencing patients' outcomes. (Babapour et al 2022). In addition, the work burden also leads to physical illnesses causing

different health issues (Starc, 2018). Moreover, stress causes psychological problems which might result to, reduced job satisfaction, increased sickness absence, increased staff turnover, and reduced work efficiency (Moustaka & Contantinidis, 2010); (Roth et al, 2022); (Glazer & Liu, 2017). Overall, Glazer & Liu (2017) confirmed that work stress refers to the stressors in the workplace that causes burnout resulting to negative responses or reactions from the workers

**Long working hours:** Nurses confront many emergency situations at work, long shift, night shift, unconducive work condition, job dissatisfaction and difficult patients' situations facing the pressure of patients losing their lives at any time. All these leads to job stress in nursing. (Moustaka & Contantinidis, (2010; Donova et al. 2013)

**Shortage of workers:** According to Roth et al, (2022). Nursing shortages differ from country to country, healthcare service, and organization. Nursing shortages could be because of aging population; most qualified nurses are close to retirement, poor health status of the workers, a growing private sector, job dissatisfaction due to heavy workloads, inadequate support staff, lack of participating in decision making and workforce burnout. All these are stressors causing a decreased supply of qualified nurses. Stress has an adverse effect on nursing. Job dissatisfaction and some cultural factors such as gender, and migration to developed countries for better wages (Starc, 2018), have led to a shortage of nurses and have increased the workload in nursing thus, leading to stress and burnout. (Lee & Kim, 2022)

### 5.3 Environmental factors:

Results from the study also show that environmental factors have a major role in causing stress in the hospitals. (Moustaka & Constantinidis, 2010) This affects job satisfaction and fuels the need to switch jobs. Environmental factors such as noise, air pollution, infectious disease, color, light negatively affect the quality of nursing care.

**Air pollutions:** Starc, (2018) argued that Working conditions such as incorrect ventilation, insufficient lighting and temperature levels are potential sources of work-related stress (Moustaka & Contantinidis, 2010). This reduces job satisfaction and instigating the feeling of moving away from nursing profession (Roth et al, 2022).



**Infectious disease:** In addition, Health care workers use sharp equipment such as needles and contact clients through the skin. They might face the same risk of active infection as the patient by processing the patient's blood and fluids. Nursing expose nurses to health risks. (Moustaka & Constantinidis, 2010); (Roth et al, 2022). In addition, exposure to risks, high number of patients exposed to infection, are common factors that cause stress in the hospital environment.

## 5.4 Psychological factors:

**Lack of decision making:** Results also show that psychological factors contribute to nurses' job stress. Nurses face psychological, physical abuse, discrimination and harassment in the workplace which affect them psychologically and this has an adverse effect on the individual and the organization. (Chatzigianni et al. 2018; Donova et al. 2013) Ethical principles in nursing profession requires nurses to respect the privacy and confidentiality of their colleagues and patients or clients. These constitutions put so much pressure on nurses (Chatzigianni et al. 2018). In addition, studies show that psychological and physical abuse are among the most stressful factors experienced by nurses in the hospital. This includes poor work relationship, low pay and lack of promotion. (Starc, 2018, Chatzigianni et al. 2018; Donova et al.2013; Lee & Kim, 2018; Babapour et al., 2022).

Babapour et al., (2022) contend that stress has an adverse effect on nurses' psychological health and job performance. Nurses' stress come from different situation. For example, excessive workload within the limit work time, unconducive working condition, long hours of work, role conflicts; poor relationship among colleagues, influence of gender, marital status, risk and danger. Nurses feeling remorseful and not having support from the organization can lead some of them to quit the nursing profession (Roth et al, 2022). While on the other hand positive life events such a new job, new studies or a new relationship can often cause stress too (Babapour et al. 2022)). A certain amount of stress can motivate nurses and improve job performance. Psychological and physiological effects of stress result to mental and physical health problems amongst nurses.

**Role of the family:** Nursing is a very demanding job, as nurses are held liable to the organization, patient, and their family and their colleagues for the decisions and actions they carry out in the hospitals. Having to deal with difficult family members and very sick patients could be stressful (Chatzigianni et al. 2018) In addition, nurses are often confronted with ethical dilemmas as they

make ethical decisions day-to-day. Making informed ethical decisions could be stressful and requires a lot of skills and knowledge. Things that affect the nurses' decision-making are mostly affected by ethical, professional, cultural, social, legal, and behavioral elements (Donovan et al. 2013; Moustaka & Contantinidis, 2010).

**Caring for helpless patients:** Nursing involves so many different emotions, such as fear, anger, resentment, frustration, anxiety, and facing the pressure of patients losing their lives at any time are negative emotional states that make nurses uncomfortable and increase their stress level at work (Moustaka & Contantinidis, 2010; Chatzigianni et al. 2018; Starc, 2018).

The findings supported the notion that job demand is an unavoidable stressor that has numerous negative consequences and is directly related to job dissatisfaction. As a result, there is a need to look for mitigating factors that reduce nursing stressors and their consequences, as well as strengthen the relationship between job demand and job satisfaction. (Moustaka & Contantinidis 2010).

## 6 Discussion

In line with the research question **What are the causes of nurses' job stress in the hospital?** The findings from the eight publications pointed out that nurses are impacted by a variety of the stress factors. Workload and turnover are the two physical aspects that are most noticeable. Up to 90% of the articles reviewed held similar opinions about how much stress nurses face because of their workload. Other work-related stressors include stressful working conditions, poor working relationships, role conflict, long working hours, age and gender of the nurses, financial resources, and environmental factors like noise, lightening, air pollution, etc. These results are consistent with earlier research (Moustaka & Constantinidis, 2010; Donovan et al., 2013; Glazer & Liu, 2017) as well as more recent research (Babapour et al. 2022; Lee, & Kim, 2020). Over the years, these elements have primarily contributed to human stress. They are all having an impact on each other's outcomes, both directly and indirectly. For example, how much time a given job demand is a factor in high job demand. The amount of time needed could also depend on how many nurses are on duty at once, which would decide whether a nurse would be working a typically lengthy and challenging shift combination. In general, how all these physical aspects affect a nurse's work environment is a mirror of how they affect the nurse physically. The level of care a nurse is capable and willing to provide patients under their care primarily depends on how the physical environment affects that nurse.

According to the research, it is important to control the link between working circumstances and stress at work because doing so reduces the danger to the health of nurses. The most prevalent illnesses experienced by nurses because of job-related stress were mental issues including sadness, anxiety, and insomnia. This is true because nurses frequently encounter situations that might be emotionally tasking, such as caring for people who are suffering (Moustaka & Constantinidis, 2010; Chatzigianni et al. 2018; Starc, 2018). The rate at which nurses are emotionally or psychologically impacted varies depending on individual attributes, but it is typically a reason for concern because it can result in burnout and eventually influence patient care. Moreover, work stress may have a physical impact on nurses, causing their health to decline. While Babapour et al. (2022) contend that excessive stress may exacerbate pre-existing medical conditions, Starc (2018) list short-term symptoms of stress as including fatigue, headaches, muscular tension, palpitations,

chest pains, indigestion, disturbed sleep pattern, and increased susceptibility to respiratory infections. Thus, the need for coping strategies in order to alleviate stress from the workplace and provide a better working environment.

When an organization's culture is dysfunctional, stress can become the norm daily (Moustaka & Contantinidis 2010). Naturally, this causes further tension. The findings of this study suggest that interventions should focus on enhancing management and staff communication in order to enhance the organizational structure and climate of the hospital facility. Identification of the sources of stress and stress management interventions are very important. Healthy work environments and good leadership style are vital to the retention and recruitment of nurses and the sustainability of the health systems. In several of the publications reviewed, most of the nurses blamed their stress on a variety of factors, including an unorganized workplace, a stressful atmosphere, poorly scheduled shifts, a lack of motivation, inadequate training, unclear or undefined duties, and a lack of social support (Starc, 2018; Chatzigianni et al. 2018; Babapour et al. 2022; Roth, et al, 2022). An ideal workplace is one that is free of conflict, has clearly defined duties, allows nurses to perform efficiently under competent supervision, and is discrimination-free. Anything short of these may cause unease which in turn creates a stressful work environment.

Sources of stress have been linked to reduced physical and psychological health, reduced job satisfaction, increased sickness absence, increased staff turnover and poor job performance (Moustaka & Contantinidis, 2010); (Roth et al, 2022); (Glazer & Liu, 2017). Therefore, reducing workload and enhancing the atmosphere where nurses work might significantly help them feel less stressed at work. The hospital managers may consider providing flexible shift hours, wellness programs, ergonomic modifications, and shifting older nurses from tedious nursing interventions to mentoring younger nurses (Donovan et al., 2013, Glazer & Liu, 2017). One of the highest stressors in nursing care was related to work overload. Therefore, reducing workload and improving nurses' environmental conditions can play a significant role in reducing their job stress. Hence, quality of work life and the management of stress are extremely important for nurses. (Moustaka & Contantinidis, 2010)

Numerous stress and conflict studies have identified interpersonal conflict and professional uncertainty as the one stressor present in every work group. This is typically caused by the variance in

how each person understands and approaches life and work. In private life, stress is often caused by changes in personal relationships, financial problems, illness and a stressful lifestyle. However, positive life events such as a new job, new studies or a new relationship can often cause stress too (Donovan et al. 2013), (Glazer & Liu, 2017). In addition, Chatzigianni et al, (2018), concurred that interactions with people are one of the most significant and reliable predictors of discomfort in nurses as nurses must deal with difficult patients repeatedly. Some people who experience stress may engage in unhealthy practices such as smoking, excessive drinking, poor diet and little exercise. They may become distressed, irritable, enjoy their work less, and feel less committed to work, have difficulty thinking logically or making decisions. The effects of work-related stress detract from the quality of nurses' working lives and may contribute to some forms of physical illness and eventually affect the standards of care (Donovan et al., 2013).

According to research, as nurses' stress levels rise, the quality of healthcare decreases (Babapour et al. 2022; Starc, 2018). This brings up the issue of stress factors in nursing and the necessity of using efficient coping mechanisms when faced with stressful conditions. Coping mechanisms and actions to lessen stress-causing factors at work are advantageous since they contribute to both protecting employees' health and increasing the quality of care provided. The results of this study demonstrate that nurses generally respond positively to coping mechanisms. The three primary areas of coping mechanism are social support; means seeking help from others by nurses to cope with the job stress (Starc 2018). Organizational management mean strategies developed by the hospital management to help nurses cope with stress. (Donova et al, 2013) Last but not the least personal/individual coping mechanisms which means that nurses having control over their work have better health status than those who have less control over their work (Babapour et al. 2022).

## **7 Ethical consideration, validity and reliability, strength and limitations**

This research carefully considered the ethical principles of scientific research. Thus, for research to be credible, it has first to be ethically acceptable and reliable. (Finnish advisory board on research integrity, 2012) The literature review included eight articles. The study adopted a literature review method and followed the stages of conducting a literature review. More to that, all data used was evidence-based and there was no new contribution added to the literature. The author acknowledged those writers whose data were used in this research.

Bias was greatly minimized by employing a good study design and data analysis. This analysis was free of falsification and fabrication since there were no misrepresentations made and no purpose of fabricating or altering the data. Plagiarism was also avoided by following citation requirements and employing the author's talent in paraphrasing without any personal desire to plagiarize.

### **Validity and reliability**

The information used in this study came from well renowned data bases and were publishes in eight countries. The articles covered the years 2010 to 2022, had full-text access, and was peer-reviewed. To find articles, the researcher used the CINAHL (EBSCO) database search. Jamk students have free access to the source. Furthermore, all papers retrieved from this database are properly referenced. Demonstrating the reliability of data is one factor that supports a researcher's ultimate argument about the study's credibility. (Elo, Kääriäinen, Kanste, Pölkki, Utriainen & Kyngäs, 2014) This study respected the ethical principles throughout the research. This included article retrieval, literature review, research method, analyses, and findings were all unbiased. The authors of the selected articles stated that they obtained informed consent from all participant nurses and hospital management, and that they ensured participants' consent, privacy, autonomy, and data confidentiality. The study was carried out in accordance with the university of applied science's ethical principles (Jamk, 2022)

Furthermore, PubMed is an internet-based database information source, and Google Scholar, which was used for the manual search, is a scientific database. Following the JAMK reference

guide, all the articles are correctly utilized and cited. As a result, the current investigation into the source of stress among nurses gained credibility because the ethical principle was followed as described.

All the publications chosen were scientific research articles. In addition to applying the inclusion and exclusion criteria, ensures that the work is dependable and genuine. The researcher selected and analyzed the articles, making the selection and analysis procedure trustworthy. To ensure clinical reliance, the study would give the same results obtained by another research using the same methodology, data search, and analysis of all included articles (Kimberlin and Winterstein, 2008). The research will contribute to professional growth in the nursing field.

### **Limitation and further research**

Despite the study's strength, its limitations stem from the use of only three databases for article search. Furthermore, the study's research material was based on limited sources of information because the publications were found in free databases rather than pay-to-access databases. This study may have been constrained by the fact that they were free and largely in English, with no other languages included. Because the research was not funded, the author did not expand beyond the databases offered by Jamk university. More research on stress that focuses on specific stressors is required in order to gather enough data and apply more effective coping mechanisms for stress management.

Regardless, the outcomes of the study will provide information to nurses and other healthcare professionals to help them recognize stress and be able to utilize stress coping mechanisms. Furthermore, the findings could be used by the administration, management, consultants, and advocates to develop strategies for reducing the impacts of stress on nurses and, as a result, improving patient care.

## 8 Conclusion

In conclusion, stress in nursing profession is a problem that should be addressed since it affects the nursing process. Organizational, environmental, occupational and psychological stressors have been identified as the key factors causing stress in the hospitals. These stressors can act alone or in combination to produce effects that jeopardize the patient's health and nurses' wellbeing. Therefore, healthcare organizations should take proper consideration of nurses' concerns and needs when drawing the healthcare policy.

It is recommended that the government should provide educational programs on nursing to the public to raise awareness of the issues and worries that nurses have and provide strategies which can eventually improve their quality of life. Additionally, hospital administrators can promote efficient nursing care by offering cognitive-behavioral intervention programs, evidence-based support programs for nurses to easily identify stressors, promote teamwork and communication skills, encouraging self-care as well as the teaching of effective coping mechanisms to lessen stressors. To sum up, additional research could be conducted on a specific stressor, to gather enough information and develop better stress coping strategies that will promote nurses' wellbeing and positive patient experiences.



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## Appendices

### Appendix 1. Summary of review articles

Authors, (year) country	Title	Aim and Pur- pose	Research Methods or Instrument	Participants	Result
Chatzigianni, D., Tsounis, A., Markopoulos, N., & Sarafis, P. (2018)  Greece	“Occupational stress experienced by nurses working in a Greek Regional Hospital: A cross-sectional study	To measure perceived stress levels among nurses in a Greek public general hospital.	Cross-sectional study was Conducted. A self-administered questionnaire including sociodemographic and Expanded Nursing Stress Scale (ENSS) for stress assessment was used.	157 nurses and nursing assistants took part	There was a statistically significant relationship between age and total stress. patients' and their families' demands stressor, discrimination, workload
Starc, J. (2018).  Slovenia	“Stress Factors among Nurses at the Primary and Secondary Level of Public Sector Health Care: The Case of Slovenia”	To Determine the basic causes of stress and examine the symptoms of stress among healthcare professionals at the primary and secondary level of health care.	The research was based on the descriptive and causal non-experimental method of empirical research. The independent samples t-test was used	The survey was conducted among 370 nurses (14% male, 86% female) – according to data from Nurses and Midwives Association of Slovenia	Nurses are exposed to stressful situations daily, most often involving psychological or physical violence in the workplace. stress factors cause women greater stress than they do men



Moustaka, E. & Constantinidis, T., C. (2010) Southern Saudi Arabia	“Sources and effects of Work-related stress in nursing”	The aim of this systematic review was the examination of the sources and consequences of occupational stress on nurses’ adequacy, productivity, efficiency.	A systematic review	A systematic review was made in “European Agency for Safety and Health at Work”, “National Institute for Occupational Safety and Health	Several aspects of working life have been linked to stress High levels of stress result in staff burnout and turnover and adversely affect patient care
Babapour, A.-R., Gahassab-Mozafari, N., & Fathnezhad-Kazemi, A. (2022). Iran	“Nurses’ job stress and its impact on quality of life and caring behaviors”	The aim of this study was to investigate the correlation between job stress with quality of life and care behaviors in nurses.	A cross-sectional study. Questionnaire	The final sample size was estimated at 115 subjects after considering a dropout rate of 20%.	Job stress has a negative effect on the quality of life related to nurses’ health
Lee, K., & Kim, S. H. (2020)  China	“Patients' and Nurses' Perceptions of What Constitutes Good Nursing Care”	Aimed to integrate the literature on patients' and nurses' perceptions of what constitutes Good Nursing Care	An Integrative Review. Research and theory for nursing practice Mixed method appraisal	A literature search of PubMed, CINAHL, and MEDLINE was conducted for article published between January 2000 and June 2017. 18 studies were identified and assessed using the Mixed Method Appraisal Tool.	Some dissents and agreements were found between patients and nurses regarding the crucial attributes of Good Nursing Care

Glazer S., & Liu C. (2017) USA	"Work, Stress, Coping, and Stress Management"	The aim of this research paper was to identify and differentiate between factors in the environment that are potential sources of stressors and how individuals perceive those factors	Theories and framework	Organizations in the USA	Both theoretical and practical attention is needed to guide stress frameworks to guide organizational development and change interventions
Donovan, R. O., Doody, O. & Lyons, R. (2013)  Britain	" The effect of stress on health and its implications for nursing"	This article identifies and discusses the effect of stress on health and its relationship to nursing.	Theories and framework	Literature search	Leadership styles within organizations must facilitate staff to be involved in decision making; thereby staff feel more valued and work in an autonomous way
Roth, C., Wensing, M., Breckner, A., Mahler, C., Krug, K., & Berger, S. (2022)  Germany	Keeping nurses in nursing: a qualitative study of German nurses' perceptions of push and pull factors to leave or stay in the profession	The aim of this study was to gain understanding of factors that keep German nurses in nursing and explore their perceptions of factors that contribute to nurses leaving or staying in the profession.	An explorative qualitative study was undertaken at four different hospitals (two university hospitals and two public hospitals) in Baden-Wuerttemberg, a state in South Germany	Semi-structured face-to-face or telephone interviews were conducted with 21 state-qualified nurses who had graduated from a German nursing program	Two themes emerged from the analysis and each theme had several sub-themes: PUSH and PULL FACTORS

## Appendix 2. Quality of articles

Author	Title	Intro- duction & aims	Meth- ods and data	Sam- pling	Data analy- sis	Eth- ics and bias	Re- sults	Trans- ferabil- ity	Impli- ca- tions	To- tal
Starc, J. (2018)	4	4	4	4	4	4	4	4	4	36
Babapour, A.-R., Gahassab- Mozaffari, N., & Fathnezhad- Kazemi, A. (2022). Iran	4	4	4	4	4	4	4	4	4	36
Lee, K., & Kim, S. H. (2020).	4	4	4	4	3	4	3	4	4	34
Glazer S., & Liu C. (2017)	4	4	4	3	4	4	4	4	3	34
Moustaka, E. & Constantinidis, T.C. (2010)	4	4	4	4	4	4	4	4	4	36
Chatzigianni, D., Tsounis, A., Markopoulos, N., & Sarafis, P. (2018)	4	4	3	4	4	4	4	4	3	34

[illegible]

### Appendix 3. Sample analysis process

Raw database	Subcategory	Main category
<p>Insufficient information on work policies and support from the government and healthcare leaders. Nurses also face discrimination and harassment in the workplace</p> <p>Positive strategies to be adopted by the organization</p>	<p>Poor time management. Lack of communication. Poor decision making, Role conflict</p> <p>Provide occupational health education</p> <p>time management and planning, making informed decision</p>	Organizational factors
<p>Dealing with emotional and psychological state. Having to deal with very ill patient. Nurses experienced physical and psychological abuse from patient, family and other colleagues</p> <p>Positive coping means</p>	<p>Emotional problems leading to stress and affecting nurses' well-being</p> <p>Lifestyle changes</p>	Psychological factors

	<p>social and moral support from friends, family and colleagues</p> <p>Self-care Coping mechanism</p> <p>Organizational support</p>	
Nurses feel pressured by their workload, long work hours, shift work, gender and marital status. Insufficient nurses to take care of the patients	Nurses experienced symptoms of Insomnia, anxiety, panic attack, depression, stress and burnout	Occupational factors
The nurses demonstrate effects of working in an uncondusive and unsafe environment which led to a deplorable health condition	Air pollution, infectious disease, an outbreak of viruses, color, light and noise	Environmental factors